



# 2021 vegetable

RESOURCE GUIDE



Canadian Edition



**Rupp**



## NEW PRODUCTS FOR 2021



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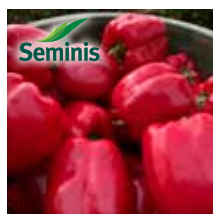
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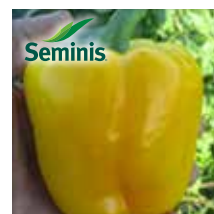
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Dear Grower,

I've been happy to hear many reports from our sales team and growers this fall. I've learned that growers experienced fairly good growing conditions and that production was solid; sales have been brisk and growing as families have been buying locally and preparing meals at home; and market prices across most crops have been pretty good too.

The perfect trifecta – good supply, strong demand and reasonable prices! I am so thankful that growers are experiencing success from their growing plans and hard work this season. Congratulations everyone!

I should stop here, because your success is what our team is focused on and we are thrilled when we know you've realized success.

However, I'd like to share a few things with you about our business. This next season marks a significant milestone for Rupp Seeds as we'll be celebrating our company's 75th anniversary since grandpa Sylvan started the business in 1946. Our company has grown and developed from those early days of custom cleaning oats and selling corn, soybeans and wheat seed varieties developed by university breeders.

When my dad Roger joined the business, he brought an entrepreneurial energy to the business and led us in developing our Rupp brand of corn, soybean and wheat varieties. His drive also led to the creation of our vegetable division and eventually to establishing our breeding department and the creation of many Rupp pumpkin, squash and gourd products that are a part of your success today. You can read more about our company history at: [www.ruppseeds.com/About](http://www.ruppseeds.com/About).

It has been a year since Dad passed away and there have been many times when I've been reminded of the legacy he and grandpa have built with the business. Our family and employees are thankful for the opportunity we have to serve so many wonderful people.

On behalf of the entire team here at Rupp Seeds, thank you for your business, and for the trust you place in us as your seed supplier.

Please let us know what we can do to serve you better as we partner together to help feed the world.

Sincerely,

Philip Rupp  
President



Sylvan Rupp - Founder



*In loving memory of*  
**Roger L. Rupp**

December 15, 1943 - October 30, 2019



We welcome the opportunity to be a part of your success. Our sales and service team is ready to assist you in planning for this coming season. Feel free to contact the salesman in your area if you need their assistance. If you live in an area without a salesman, please contact the office and a representative will assist you.

## VEGETABLE CONSULTANTS



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## INSIDE SALES REPRESENTATIVES



**Marie, x9011**  
Canadian Representative



**Dawn, x7092**



**Katy, x9013**



**Kristen, x7098**



**Pete, x9003**



**Sarah, x7091**

## 4 WAYS TO ORDER\*

**Phone:** 1-800-700-1199 (Monday - Friday, 8 am - 5pm EST)

**Fax:** 419-337-5491

**Mail:** Rupp Seeds 17919 County Road B, Wauseon, OH 43567

**Email:** orders@ruppseeds.com

\* Please pick only 1 method of ordering to avoid duplication of your order. (i.e. if faxing in your order, do not mail in a copy as well).

### HOW TO ORDER

- Print clearly. Please correct any errors in your name and/or address and phone number. Be sure to provide both your billing address and your physical (911) address (where seed should be shipped) and phone number. If you have moved since your last order, please check mark the box for change of address and include your old address as well.
- For each item ordered, print the item number, quantity, package size (ex. 1/4lb. etc.), name of item and price for quantity ordered.
- Shipping and handling charge applies to each shipping address for orders under \$250.00.
- If the order is to be shipped to a different address, please indicate the name and address.
- Please include any required waivers or licensing information with your order.
- Please send check, money order, VISA, Mastercard, or Discover account number for payment. **Prices and payments are in US Dollars.** Do NOT send cash.
- To avoid delay in delivery, we advise ordering early. Our peak season runs from February through April. During this time orders received may take longer to be processed and shipped.

### ORDERING INFORMATION

The majority of our seeds are **treated**. Items that are available untreated are indicated in the price tables with a 'U' at the end of the item number. Please be sure to include the 'U' when filling out your order form, if you desire untreated seed.

In case of either partial or total crop failure, we reserve the right to pro-rate delivery.

**Prices are in US dollars.** Prices are subject to change without notice.

Products are sold by the package size. For example: if you are ordering 7 pounds of sweet corn, you will need to order one - 5 pound package and two - 1 pound packages. These package sizes will be at different price breaks.



## PAYING FOR YOUR ORDER

We accept payment via credit or debit card, check, and wire transfer. Open account terms and financing are available for qualifying customers. Payment discounts are available for select payment methods and products. See page 6 for more details on cash discounts and financing options.

**Cash Discounts!**  
on orders  
over \$250.00  
see page 6 for details

## SHIPMENT OF YOUR ORDER

All orders will be shipped after payment has been received. If you are paying by check, please allow 7-10 business days for your check to clear.

A \$10.00 shipping and handling charge will be added to all orders less than \$250.

Our preferred and standard method of shipping is UPS Ground.

We reserve the right to ship your order via the most economical carrier, so in addition to UPS we also utilize our own delivery trucks, truck line and the US Postal Service.

**Free Shipping!**  
on orders  
over \$250.00

## PICKING UP YOUR ORDER

If you would like to pick up your order, we require 24 hour advanced notice.

## ON RECEIPT OF YOUR SHIPMENTS

### DAMAGED SHIPMENTS

A small percent of shipments may get damaged during transit. If you receive a damaged shipment, please be prepared to take action so you can receive proper credit or replacement. Our Customer Service department will file a claim with the shipping company and will need some information from you.

Here are guidelines to keep in mind and actions you should take to help expedite a claim.

- Take time when unloading. Count the packages and pieces received and look for any damaged shipping containers and packages.
- Tell the driver to note any shortage or damage on all copies of the freight bill, take pictures, and to sign their full name clearly.
- Immediately contact our office at 800-700-1199 and fax a copy of the freight bill along with a description of the damage, along with any pictures of other documents to 419-337-5491, or email it to us at [orders@ruppseeds.com](mailto:orders@ruppseeds.com) or mail it to us within 10 days.
- Include a note identifying the name and quantity of each variety that is missing or damaged.

### RETURNS

Rupp Seeds has no control over the handling and care of the seed once it leaves our warehouse. In order to ensure quality seed for all of our customers, **we will not accept any seed returns** except in situations where an error has been made in fulfilling your order. In the event of an error, contact our office within 15 days of receipt of the order to obtain approval for the return.

## NOTICE TO BUYERS

### VARIETY DESCRIPTIONS

Variety descriptions and images presented in this catalog serve as a guideline only. They are provided for comparison purposes to help you plan your crop program and can be expected to vary to some degree depending upon location, soil type, environmental conditions, crop management practices, pest or pathogen presence, and other uncontrollable factors that may affect the expected performance. Descriptions in the catalog are the result of favorable growing conditions and identical results are not guaranteed.

Statements regarding a variety's response to a specific pest, pathogen, or stress are based on evaluation under select conditions. These reactions can be affected by the factors mentioned above, as well as new pathogen races, pest types or vectors for disease. Therefore, we give no warranty, express or implied, for crop performance relative to the information given; nor do we accept any liability for any loss, direct or consequential, that may arise from any cause. Read all seed package labeling carefully as it contains terms and conditions of sale.

### WARRANTY

**WARRANTY & DISCLAIMER of WARRANTIES:** Rupp Seeds, Inc. (Rupp) warrants that the products are labeled as required by law and conforms within tolerances to the label description. Rupp and its seed suppliers make no other express or implied warranty of merchantability, fitness for a particular purpose or otherwise. Any recommendations for use of these products are based on Rupp and their suppliers best judgment, but there is no warranty of results to be obtained in connection therewith.

**LIMITATIONS of LIABILITY:** The exclusive remedy for loss or damages due to breach of the foregoing warranty or contract or for negligence or other cause shall be limited to the purchase price of the product and shall not include any consequential damages. Claims for defects in this product must be presented to Rupp as soon as possible to enable Rupp to investigate the claim and in any event within 30 days after discovery.

**NOTICE OF REQUIRED ARBITRATION:** The seed laws of some states require Arbitration of disputes of allegedly defective seed as a prerequisite to maintaining a legal action of the seller.

Please contact your State Department of Agriculture for specific requirements as to filing procedures as soon as you learn the fact upon which a claim is based. Before any legal action is initiated, a pre-harvest inspection may be required.



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## GLOSSARY

**AAS** - All America Selection winner.

**Anthocyaninless** - Recessive gene that blocks the expression of purple pigment.

**Bitterfree** - (cucumbers) The plant and fruit lack cucurbitacins, a chemical, which gives a bitter taste.

**Bolting** - When plant begins to produce flowers and set seed.

**Concentrated Ripening/Set** - (tomatoes) When 80-90% of the fruit ripen within a short period of time.

**Confectionery** - (sunflowers) Used for human consumption.

**Days from transplant** - This refers to maturity from when transplants are planted outside in the field. Time from seeding to transplant will need to be added to calculate overall maturity.

**Determinate** - Plant habit where vine will cease to grow once it reaches a particular size.

**Dwarf Indeterminate** - (tomatoes) Plant habit where vine central stem continues to grow in length, but lateral branches do not.

**Expansion Rate** - Under ideal conditions, the number of cups of popped corn for every cup of unpopped corn.

**F1** - see Hybrid

**F300** - FarMore® F300, an advanced fungicide seed treatment technology, delivers protection for a variety of small-seeded vegetable crops against a broad spectrum of seed and seedling diseases.

**FI400** - FarMore® FI400 provides early-season protection to prevent or eliminate damage caused by cucumber beetles.

**Green Shoulder (GS)** - (tomatoes) The dark green shoulder on unripe fruit, often the last area of the fruit to ripen.

**Gynoecious** - (cucumbers) Plant with only female flowers.

**Heritage Varieties** - Varieties marked heritage varieties are long standing products that have been used for generations. Mainly open pollinated (OP) varieties.

**Heterosis** - The improved or increased function of characteristics in a hybrid offspring. A hybrid exhibits heterosis when its traits demonstrate significant enhancement over those of its parent varieties.

**Heterozygous** - When the parents in a sweet corn hybrid are of different types, i.e. SU x SE, the hybrid is heterozygous. Heterozygous hybrids have better vigor in cooler soils.

**Holding Ability** - The period of time a fruit will maintain marketability once it has reached maturity.

**Homozygous** - When both parents in a sweet corn hybrid are of the same type, i.e. SE x SE, they are considered homozygous. Homozygous hybrids typically have higher sugar content.

**Hybrid (F1)** - Hybrid seed is produced from the cross between two genetically pure varieties, typically from the same species. Hybrids are common in agriculture, especially for crops that benefit from heterosis, such as corn and rice. Hybrids are created as a means to combine the positive and valuable characteristics of the parent varieties into a new hybrid variety. Seed production of a hybrid occurs by controlling the pollination between its parents, such as hand pollination in cucurbits or de-tasseling in corn.

**Indeterminate** - Plant habit where vine continues to grow.

**M** - Is a unit of measure that equals 1,000. Seed sold by seed count is priced in multiples of 1,000. For example 5M, 10M, 25M which stands for 5,000 seeds, 10,000 seeds and 25,000 seeds.

**Monoecious** - (cucumbers) Plant with both distinct male and female flowers.

**Naked Seeded** - No hull on the seed. Easier to eat than normal hulled seeds.

**Open Pollination** - Open pollination is pollination by insects, birds, wind, or other natural mechanisms. Seeds of open-pollinated plants will produce new generations of those plants; however, because the pollination is uncontrolled and the pollen source is unknown, open pollination may result in plants that vary widely in genetic traits.

**Open Pollinated (OP)** - A variety is said to be open pollinated when it is a non-hybrid variety, meaning that seed is produced via self-reproduction. Seed production of an open pollinated variety occurs using the plants natural pollination mechanism but in a controlled environment to prohibit the introduction of outside, unrelated pollen sources. These controls insure that the open pollinated variety stays genetically pure and true to type.

**Parthenocarpic** - (cucumbers) Plants that set fruit without pollination.

**Pelleted** - Seed coating that improves the shape, size, and uniformity of raw seeds for more accurate sowing by hand and precision-sowing by machine. Pellets are made of inert materials which dissolve as they absorb moisture, allowing immediate access to oxygen for fast, uniform seedling emergence.

**Pendant** - Refers to how the pepper hangs on the plant.

**Pithy** - Fibrous, course texture.

**Pungent** - Refers to heat level of hot peppers; pungent = hot.

**PVP** - Plant Variety Protection. Seed may not be reproduced for sale without permission of the originator.

**Sieve** - Diameter of green bean pod.

**Transgenic** - Genetically modified.

**Uniform Ripening (UG)** - Has the gene for uniform ripening of the fruit. Fruit are typically lighter green prior to ripening.

## ICON KEY

**Cruiser** - Items treated with Cruiser seed treatment are marked with this symbol and highlighted in purple in the price tables.



### Documents Required

- This color coded icon marks varieties that need signed documents / waivers in order for the product to be shipped. A page number and color will direct you to the document in the back of the book.



**FarMore** - Items treated with FarMore seed treatment are marked with this symbol and highlighted in green in the price tables.



### Game Changers

- An item marked as a Game Changer is one that is gaining some traction with growers either through early release trialing or as a result of giving a new product a try. These products have the potential to become tomorrow's All Stars and bring something special to the table. These are "must try" products in this crop type.



### Grower Preferred All-Stars

- Items marked with this symbol are "All Stars". They have been and will continue to perform consistently well for many growers across a wide geography. Growers really can't go wrong by planting these selections.



**High Tunnel** - Items marked with this symbol are recommended for high tunnel and protective culture production.



**New** - Most often this is a new release, but it can also be new to our lineup and not new in the market. Progressive growers that are producing other similar varieties in this product category should consider giving this a try to see if it works for them.



### Rupp Logo

- Our logo marks those varieties that have come from our research and development group as well as products for which we have exclusive marketing rights.



### Sort Order

- This symbol marks the column used to sort the information presented in each product description table. Usually alphabetical by item name or sorted by days maturity.



*Vendor / Brand logos contained within are properties of their respective trademark holders.*



# TERMS AND PAYMENT INFORMATION

## PAYING FOR YOUR ORDER

All payments should be made payable to Rupp Seeds, Inc. in U.S. Dollars and to the following address:

Rupp Seeds Inc.  
17919 County Road B  
Wauseon, OH 43567

We accept payment via credit or debit card, check, and wire transfer. Open account terms and financing is available for qualifying customers. Payment discounts are available for select payment methods and products.

### Credit Card

We accept the following credit cards as payment: Discover, MasterCard, or VISA. Please indicate which card you wish to use and furnish a complete card number, expiration date, 3-digit verification code, name on card, and billing address of the account holder. Your credit card will not be charged until your order is shipped. Not eligible for cash discounts.

### Check

We accept business or personal checks, money orders, and cashier's checks which are eligible for payment discounts. Please refer to the Cash Discount Program for details.

If paying by check, please allow 10 days for your check to clear the bank before your seed will be shipped.

A fee of \$25.00 will be charged for any check returned by the bank.

### Wire Transfer

We do accept payment via wire transfers to our bank. Please contact our office for processing details.

There is a \$25.00 processing fee for wire transfers.

### Open Accounts

Open account terms are available to qualifying customers. To establish credit terms, a customer must have a minimum of \$1000 in seed purchases, and a Rupp credit application must be completed and submitted for review. Please allow several weeks to process.

Payments on open account invoices are eligible for payment discounts. Please refer to the Cash Discount Program for details.

### Invoice Terms

Payment in full is expected on or before the due date indicated on the invoice, not from the statement date.

Past due invoices will be charged a finance charge of 1.5% per month on the past due amount.

Any fees or legal expenses incurred in collecting unpaid accounts will be charged to the account to the extent permitted by law.

## CASH DISCOUNT PROGRAM

Rupp Seeds offers a cash discount program as an incentive for early payment of your seed order or invoice. Cash discounts are available for orders over \$250.00.

Use the following table to determine your discount rate for the month in which you are sending payment.

December . . . . .	6.0%	March . . . . .	3.0%
January . . . . .	5.0%	April . . . . .	2.0%
February . . . . .	4.0%		

Our cash discount program can be used in the following ways:

- A) Prepay on account – Make a payment on your account as prepayment for your expected purchases in the coming season.
- B) Pay with order – After you assemble and total your order, simply calculate and subtract the cash discount amount based on the month of payment and send a payment for the balance.
- C) Pay upon receipt of order acknowledgment – You can also receive a cash discount for payment after receipt of your order acknowledgment. Payment can occur at any time before your seed is shipped.

Please note the following details about cash discounts:

Cash discounts are only available on vegetable and grain seeds. Cash discounts are not available for non-seed items including: seed treatments, clothing, accessories, planter plates, popping corn, supplies, freight charges, etc.

Cash discounts are not available on orders less than \$250 or for credit card, debit card, and COD orders.

## RECENTLY ASKED QUESTIONS

*Do you offer any discounts that I would be eligible for?*

Yes, we offer cash discounts on all seed orders over \$250.00. The cash discount is for orders paid for via check. You may prepay your seed order at anytime and we will add that months discount to your credit on account. The December discount is 6% and goes down a percentage each month through April. See page 6 for more details.

*You offer more high quality varieties than most seed dealers. How do you decide which varieties to offer? And where do they all come from?*

This edition of our catalog features over 500 varieties in over 35 vegetable crops. We consider most of these varieties as suitable for professional and commercial growers, while a few others are included because they're popular heritage varieties.

Deciding which varieties to offer is a challenging question and there are a number of factors that are considered, including:

- What market is a variety best suited for? For the shipper or fresh market? Or wholesale or retail trade?
- Does a new variety bring a game changing improvement over current varieties? Is it higher yielding? Does it produce more desirable, consistent or marketable fruit? Does produce from the variety offer any improvements in food quality or nutrition?
- Does the variety offer the grower any benefits in managing crop issues, weeds, insects or disease?

Many of these questions are answered in the product development trials we conduct every year on our farm. Our personal experience is important and our observations at the numerous vendor trials we visit also are a factor.

The reliability of the seed supplier is also important. Do they consistently have seed supply available? And is it high quality?

Our current vendor list is over 40 companies and includes:

American Takii, A.P. Whaley, Awald, BHN, Bisek Gardens, Condor, Crookham, De Ruiter, DP Seeds, Enza Zaden, Harris Moran, Harris Seeds, Hollar, Hybrid Seed Company, Illinois Foundation Seeds, Jersey Asparagus, Johnny's, Kimberly, Lark, PanAmerican Seed, Pure Line, Rispens, Rupp, Sakata, Schlessman, Seed Savers Exchange, Seeds By Design, SeedSense, Seedway, Seminis, Seneca Vegetable Research, Siegers, SPS Idaho, Sugar Hill, Syngenta, The Wax Company, Tozer, Treasure Valley Seed, US Agriseeds, US Seedless, Vilmorin, and Wild West.

*I am preparing for a food safety audit. Can you help? Is Rupp Seeds GAP certified?*

Yes, Rupp Seeds is GAP certified. A copy of the certificate can be found on page 135.

In recent years there have been several occurrences of food borne illness. These situations have prompted both the government and industry to respond to insure a safe food supply. Development of Good Agricultural Practices (GAP) and Good Handling Practices (GHP) for the produce industry help minimize these outbreaks, and voluntary audits help to insure the practices are defined and in use.

The U.S. Food and Drug Administration's "Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables" doesn't have specific guidance for seed companies. Even so, we recognize that many of our customers need our assurance that seeds are handled appropriately to minimize contamination.

We've consulted with food safety experts to understand what we can do to assist our customers with their audit preparations. They've recommended that we provide a Letter of Guarantee that briefly describes our practices and they've assured us this letter is acceptable in any food safety audit. We've included the letter in this catalog for your convenience. See page 136 for a copy.

*Are all of your seeds treated?*

Most of our seed is treated. We do have some varieties available untreated. These items are marked as untreated in the pricing tables. See the pricing table example below. Red Russian Kale is available untreated and has a 'U' at the end of the item number and the item number is red instead of black. When ordering, please put a "U" behind the item number to signify you are ordering untreated seeds. In addition, it's helpful to put "Untreated Seeds Only" on the top of your order form.

Pricing table example. "U" indicates untreated seed.

KALE		M=1,000 seeds			
Priced per 1,000 seeds in these package sizes		1M	5M	25M	100M
28005	<b>Black Magic</b>	3.65	2.60	1.90	1.40
28504	<b>Blue Ridge</b>	10.40	9.35	8.65	8.15
28503	<b>Winterbor</b>	10.40	9.35	8.65	8.15
Priced per package 4 oz.					
Priced per pound in these package sizes					
		1#	5#	25#	
28004U	<b>Red Russian</b> Untreated	13.80	30.70	30.20	29.95

*What are GMOs? What does GMO stand for? And why do they exist?*

A GMO, or Genetically Modified Organism, is a plant or variety that was developed to include a desired gene or selection of genes from another plant or organism.

GMOs were developed to enable a plant with a built-in ability to resist herbicides, insects and diseases, helping farmers produce more while reducing their use of chemicals. Recent developments in science are also improving the plants water and nitrogen utilization, which enable it to produce a crop even when these nutrients are in short supply.

*My customers occasionally ask me if I raise and sell GMO vegetables. Can you tell me which products in your catalog are GMO?*

GMO varieties of corn, soybeans and cotton have been widely accepted by farmers in the US and internationally. GMO developments in vegetable crops, on the other hand, have been pretty limited, in large part due to the high cost of research and development for crops that aren't widely grown. Currently, the only GMO vegetable available in our catalog is sweet corn.

Of the roughly 95 varieties of sweet corn, 19 are GMO: the Performance Series, Attribute, Attribute Plus, and Attribute II varieties listed on pages 30 - 32.

*Is there more information about GMOs that I can provide my customers if they are interested in learning more?*

GMOAnswers.com is an excellent resource for anyone interested in learning more about GMOs. Visitors can ask questions and get answers from experts across a wide range of disciplines who will provide balanced, fact-based responses. These experts include conventional and organic farmers, agribusiness experts, scientists, academics, medical doctors and nutritionists from a wide range of studies.





JADE II **NEW** pg. 9

# BEANS

## PLANTING

Plant green beans in soil temperatures of 65 degrees or greater. Planting depth should be ½" to 1". Row spacing should be 30" for hand-picking. There should be approximately 2" between plants. Some commercial growers are using 15" rows for late planted green beans that are going to be mechanically harvested.

See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## MANAGEMENT

Weed pressure and insect pressure are the hardest things to control in green beans. If conditions are wet, diseases are more prevalent.

## HARVEST

Harvest green beans when 50% of the beans are 3 - 4 sieve.

## STORAGE

Store beans at 40 - 45°F and 95% humidity.

## RUPP USE GUIDELINES

Home Garden and Farm Market varieties are considered to be high quality (gourmet) for fresh use or processing. They are low in fiber and more tender. As with most home garden varieties, pods set over a longer period for extended harvest.

Shipping varieties contain fiber that slows wrinkling under long distance shipping or longer time between picking and use on the stand. They are normally less tender than Home Garden or Farm Market varieties. Shipping varieties have a more concentrated pod set for mechanical harvest.

## DISEASE CODES

A - Anthracnose  
BBS - Bacterial Brown Spot  
BV - Common Bean Mosaic Virus  
CTV - Curly Top Virus  
HB - Halo Blight  
N# - Bean Mosaic Virus race number  
NLB - Northern Leaf Blight  
PM - Powdery Mildew  
R - Rust  
WM - White Mold

## COLOR CODES

BY - Bright Yellow  
DG - Dark Green  
DY - Dark Yellow  
GR - Green Red  
LG - Light Green  
MDG - Medium Dark Green  
MG - Medium Green  
MLG - Medium Light Green  
P - Purple  
VDG - Very Dark Green  
Y - Yellow

## BEAN SIEVE SIZE

1 sieve - 7/32"  
2 sieve - 5/16"  
3 sieve - 11/32"  
4 sieve - 3/8"  
5 sieve - 7/16"



WALKER DELUXE



BA0999



BRONCO



DESPERADO



JADE II **NEW**

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ruppseedinc/



MOMENTUM



OUTLAW



SYBARIS ★



#### SAVE WITH CASH DISCOUNTS

Cash discounts are available throughout the season and are a great way to add money to your bottom line. See page 6 for all of the details.

December . . . . .6%  
January . . . . .5%  
February . . . . .4%  
March . . . . .3%  
April . . . . .2%

## ASPARAGUS

### Features

*Tight headed spears with slightly purple bracts. Impressive yields. High disease tolerance. Used for fresh market and processing.*

13007 **Walker Deluxe** <sup>F1</sup>

## ASPARAGUS

M=1,000 seeds

	100 Seeds	500 Seeds	1M	5M	15M
<i>Priced per package</i>					
<i>Priced per 1,000 seeds in these package sizes</i>					

13007U **Walker Deluxe** <sup>untreated</sup> 13.45 55.95 97.25 84.55 73.50

## BEANS

## BUSH GREEN Fresh Market

Pricing on page 10

		Days	Pod Length	Pod Color	Seed Color	Use	Disease	Features
07147	<b>BA0999</b>	50	5 ½"	DG	White	FM, S	BBS, N	<i>This early bean has a pod that develops very quickly at maturity. Sieve size distribution is 65% in the 3-4 range and 35% in the 5's. This bean will work really well as a rain gap filler.</i>
07043	<b>Bronco</b>	58	5 ½"	DG	White	FM, S	BV <sup>1</sup>	<i>High yielding. For market or shipping.</i>
07033	<b>Desperado</b>	53	5 ½"	DG	White	FM, S	BV	<i>Desperado is a robust variety that produces high yields of high-quality straight pods, quick to mature. Well adapted for heat and stress tolerance with strong consumer appeal.</i>
<b>NEW</b> 07155	<b>Jade II</b>	60	6 ½"	DG	White	FM, S	BV, CTV, R	<i>Improvement to Jade with darker beans and better seed quality. Long, straight pods which grow in a less concentrated set.</i>
07005	<b>Momentum</b>	56	5 ¾"	DG	White	FM, S	BV	<i>An upright bush style variety. Produces a concentrated set of straight pods with outstanding yields and is widely adapted to most growing regions.</i>
07024	<b>Outlaw</b>	57	5 ¼"	DG	White	FM, S	BV	<i>Extremely straight, glossy pods. Pods resist breaking and bruising. Plant does not lodge. Versatile across all growing regions. Excellent seed quality and germination. Use as a Prevail replacement.</i>
★ 07148	<b>Sybaris</b>	55	5 ½"	VDG	White	FM, S	BV, R	<i>Sets shiny, high quality fruit even in upper region of the plant.</i>





JADE ★



SUNBURST



SV1003GF ★



BORSALINO

#### CASH DISCOUNTS

Cash discounts are a great way to add to your bottom line. See page 6 for details.

## GROWER PREFERRED ALL-STARS ★ BEANS

Items marked with a gold star are "Grower Preferred All-Stars".

Growers throughout the Midwest and North East have been successful with these varieties. If you're looking to get started with a new crop or make a change in the varieties you are using, you can trust that Grower Preferred products will do the job.



### BEANS BUSH GREEN

If you are looking for a hand-pick bean with very long pods, **Jade** is the one for you. Jade has been a standard variety for some time and will provide good yields in all weather conditions.

*Dave Silveus*  
Vegetable Consultant

**Sybaris** is a green bean that has performed admirably over the past several seasons. This variety has proven itself to be one of the highest quality green beans on the market! The pods are a shiny, dark green color and the sieve size remains in the 3's and 4's. It will also hold longer in the field to give growers more flexibility at harvest time.

### BEANS YELLOW

**SV1003GF** is a newer wax bean that delivers the same yields as Sunburst with a slightly darker yellow pod. It is quickly becoming a favorite of wax bean growers who are also looking for longer pod length. SV1003GF averages around 5 ½" in length.

### BEANS GREEN RUNNER

**Volunteer Half Runner** is a favorite for growers planting half runner beans. It has very long 6" pods that sets a lot of beans!

### BEANS

### BUSH GREEN Heritage Varieties - Home Garden

	Days	Pod Length	Pod Color	Seed Color	Disease	Features
★ 07135 <b>Jade</b>	60	6 - 7"	DG	White	BV, CTV, R	Large, upright plants keep beans clean and straight. Heat tolerant and high yielding even when stressed by heat or cold.

### BEANS

### BUSH GREEN FLAT

	Days	Pod Length	Pod Color	Seed Color	Use	Disease	Features
<i>Fresh Market</i>							
07017 <b>Roma II</b>	58	5 ½"	MG	White	FM, HG	BV <sup>1</sup> , N <sup>15</sup>	Good flavored Romano type for home or market.

### BEANS BUSH GREEN Fresh Market

M=1,000 seeds

	Priced per 1,000 seeds in these package sizes	2M	10M	20M	80M	800M*
07147 <b>BA0999</b> Cruiser			4.25	4.00	3.80	3.55
07043 <b>Bronco</b> Cruiser		4.65	3.65	3.40	3.20	2.95
07033 <b>Desperado</b> Cruiser		4.60	3.60	3.35	3.15	2.90
07119 <b>Grenoble</b> Cruiser		5.10	4.10	3.85	3.65	3.40
07155 <b>Jade II</b> Cruiser			3.85	3.60	3.40	3.15
07005 <b>Momentum</b> Cruiser		4.65	3.65	3.40	3.20	2.95
07024 <b>Outlaw</b> Cruiser		4.55	3.55	3.30	3.10	2.85
07148 <b>Sybaris</b> Cruiser		5.15	4.15	3.90	3.70	3.45

\* Multiple packages may be used to fill orders for these quantities.



### BEANS BUSH GREEN Heritage

	Priced per pound in these package sizes	1#	5#	25#	50#*	500#*
07135 <b>Jade</b>		5.95	4.95	4.70	4.55	4.40

\* Multiple packages may be used to fill orders for these quantities.

### BEANS BUSH GREEN FLAT

	Priced per pound in these package sizes	1#	5#	25#	50#
07017U <b>Roma II</b> Untreated		4.65	3.65	3.35	3.15

BEANS		YELLOW WAX						
		Days	Pod Length	Pod Shape	Pod Color	Seed Color	Disease	Features
<i>Fresh Market</i>								
08019	<b>Sunburst</b> 	50	6"	Round	BY	White	BV, HB	A Seminis variety for local market or shipping. Long straight pods that are an attractive bright yellow. Concentrated set.
★ 08005	<b>SV1003GF</b> 	56	5 1/4"	Round	Y	White	BBS, BV	Has better color and a slightly longer pod than Gold Dust with a more upright plant. Consistent yielder.

BEANS		FRENCH FILET						
		Days	Pod Length	Diameter	Pod Color	Seed Color	Disease	Features
08018	<b>Borsalino</b> <small>Baby Wax</small>	60	4"	1/4"	Y	White	A, BV	A Vilmorin high quality baby wax bean with a deep gold color and a concentrated set for both hand or mechanical harvest. Sieve size 2 & 3.

BEANS		GREEN RUNNER						
		Days	Pod Length	Pod Shape	Pod Color	Seed Color	Disease	Features
★ 07118	<b>Volunteer Half Runner</b>	60	6"	Oval	LG	White	BV, R	A strain of Half Runner developed by the USDA breeder, Dr. Mullins, at the University of Tennessee. The commercial favorite.

BEANS		HORTICULTURAL <small>Heritage Varieties</small>						
		Days	Pod Length	Pod Shape	Pod Color	Seed Color	Use	Features
07031	<b>French Horticultural</b>	68	7"	Flat	GR	Buff Red	FM, HG	This strain produces runners though seldom staked. Young beans are frozen; mature are shelled green or dried.

BEANS YELLOW WAX		M=1,000 seeds				
<i>Priced per 1,000 seeds in these package sizes</i>		2M	10M	20M	80M	800M*
08019	<b>Sunburst</b> <small>Cruiser</small>	5.20	4.20	3.95	3.75	3.50
08005	<b>SV1003GF</b> <small>Cruiser</small>	5.25	4.25	4.00	3.80	3.55

\* Multiple packages may be used to fill orders for these quantities.

BEANS FRENCH FILET		M=1,000 seeds			
<i>Priced per 1,000 seeds in these package sizes</i>		2M	10M	20M	100M
08018	<b>Borsalino</b>	5.85	5.10	4.85	4.60

BEANS GREEN RUNNER		Priced per pound in these package sizes			
		1#	5#	25#	50#
07118	<b>Volunteer Half Runner</b>	4.65	3.65	3.35	3.15

BEANS HORTICULTURAL		Priced per pound in these package sizes			
		1#	5#	25#	50#
07031U	<b>French Horticultural</b> <small>Untreated</small>	5.30	4.30	4.00	3.80



Cruiser® seed treatment insecticide guards against a broad spectrum of early season sucking and chewing insect pests in beans and sweet corn. By protecting the crop from the start, growers can improve stand establishment, enhance plant vigor and increase yield potential. <http://www.syngenta-us.com/crop-protection/seed-treatment/products>



Cruiser® treated items are highlighted in purple in the price tables. Look for this symbol in the product description tables marking Cruiser treated items.





CHIOGGIA GUARDSMARK pg. 13

# BEETS

## PLANTING

Plant seed 1" apart and thin to 2" apart. Row spacing ranges from 15" - 24". Seed depth should be ¼" - ½" deep. Poor stands are often the result of planting too deeply or the soil's crusting after a heavy rain. The seedlings may emerge over a relatively long period of time, making a stand of different sizes and ages of seedlings.

See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## MANAGEMENT

It is extremely important to thin beets because they are a multigerm seed meaning each seed will produce several plants. Beets that are thinned when they reach approximately 3" tall can be used as greens. Frequent and shallow cultivation is important to keep the soil loose around the growing beet to ensure uniform roots.

## HARVEST

Beets can be harvested whenever they grow to the desired size. About 60 days are required for beets to reach 1½" in diameter, the size often used for cooking, pickling or canning.

## STORAGE

Beets may be stored in a polyethylene bag in a refrigerator for several weeks. Cut off the tops of the beets one inch above the roots. Beets store the best at 32°F and 95% humidity. Do not freeze.



CAMARO



CHIOGGIA  
GUARDSMARK











RED ACE



TOUCHSTONE  
GOLD

**Naturall™**

Enhance root growth and increase seedling vigor for healthier plants and higher yields with Naturall™ for Vegetables.  
See page 125 for rates and pricing.

BEETS				
		Days	Sugar	Features
<b>Fresh Market</b>				
14003	<b>Camaro</b> <sup>F1</sup>	50 - 55	15%	Good root quality, uniform size and shape. High marketable yield. Smooth skin, good internal and external color.
14105	<b>Chioggia Guardsmark</b>  	60	12-15%	Candy-striped beet with alternating rings of dark red and white that are unique and beautiful, making this variety a popular choice for specialty markets. Increased uniformity and bolt tolerance. A strain of the popular Italian heirloom.
14011	<b>Merlin</b> <sup>F1</sup> 	63	12 - 15%	A beet that replaces Pacemaker III with very similar qualities but more producible seed.
14002	<b>Red Ace</b> <sup>F1</sup>  	53	12 - 15%	Early, sweet, red and resists zoning in hot weather. Excellent for garden, market or processing.
 14106	<b>Touchstone Gold</b>  	55	12-15%	Offers higher germination rates, more uniform round roots and less zoning than standard golden types. Solid green tops are long, attractive, and quickly shade out weeds. Vibrant golden yellow flesh retains its color when cooked and is sweet and more mild than red beets.
<b>Heritage Varieties</b>				
14104	<b>Cylindra</b>	60	5 - 7%	Unique, long cylindrical shaped beet, excellent for slicing. Up to 8" long and 1 ¾" in diameter.
14101	<b>Detroit Dark Red</b>	58	5 - 7%	A very popular, tender, dark red beet used by many home gardeners.

BEETS		M=1,000 seeds			
		Priced per 1,000 seeds in these package sizes			
		5M	25M	250M	1,000M
14003	<b>Camaro</b>	1.08	0.99	0.93	0.89
14105	<b>Chioggia Guardsmark</b> <sup>F300</sup>	1.57	1.48	1.42	1.38
14011	<b>Merlin</b> <sup>F300</sup>	1.21	1.12	1.06	1.02
14002	<b>Red Ace</b> <sup>F300</sup>	1.21	1.12	1.06	1.02
14106	<b>Touchstone Gold</b> <sup>F300</sup>	2.78	2.69	2.63	2.59

Seed Size: 9 - 10 = 30,000 seeds per pound.

BEETS		M=1,000 seeds					
Priced per package		1 oz.	4 oz.				
Priced per pound in these package sizes					1#	5#	50#
14112U	Chioggia <small>Untreated</small>	3.20	11.10	29.60	28.60	27.60	
14104U	Cylindra <small>Untreated</small>		3.85	10.15	9.90	9.65	
14101U	Detroit Dark Red <small>Untreated</small>		3.95	10.50	10.25	10.00	





EASTERN CROWN pg. 15

SAKATA

# BROCCOLI

## PLANTING

For spring broccoli, plant in greenhouse in flats. Sow  $\frac{1}{4}$ " to  $\frac{1}{2}$ " deep. For fresh market broccoli, plant on 30" beds with trickle irrigation. On a 30" bed, plant two rows of broccoli. Plants should be 15" apart. When planting fall broccoli, count backward from the first fall frost in your area and add about 30 days from planting. This can be either started in a greenhouse or direct seeded into the field.

See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## MANAGEMENT

Use starter fertilizer for transplants and side-dress with nitrogen fertilizer when the plants are half grown. Provide ample soil moisture, especially as the heads develop. Scout fields for aphids and cabbage worms.

## HARVEST

Harvest when the head is large and firm, with a compact cluster of small flower buds. The buds should not have bright yellow flowers showing. Look for bright green or purplish-green heads. Yellow flowers and enlarged buds are signs of over-maturity.

## STORAGE

Store the broccoli, unwashed, in loose or perforated plastic bags in the vegetable crisper of the refrigerator. Broccoli left unrefrigerated quickly becomes fibrous and woody.

Wet broccoli quickly becomes limp and moldy in the refrigerator—so wash it just before using. Store fresh broccoli in the refrigerator for 3 - 5 days. Old broccoli may look fine, but it develops strong undesirable flavors. It tastes best and is highest in nutritional value when storage time is brief.

## DISEASE CODES

BS - Black Speck  
BR - Black Rot  
DM - Downy Mildew  
HS - Hollow Stem  
PB - Club Root



EMERALD CROWN ★



GREEN MAGIC ★



HANCOCK



IMPERIAL ★



MILLENNIUM ★



SORRENTO

BROCCOLI							
		Days from Transplant***	Sowing Season	Head Size	Bead Size	Disease Code	Features
<i>Fresh Market</i>							
15009	<b>Eastern Crown</b> <sup>F1</sup>	74	Spring Summer	Medium	Small		<i>Eastern Crown is an outstanding variety for the East Coast. Small beads, blue-green head color and excellent heat tolerance. Perfect for the crown cut/short trim market (Asian cut). Performs well in long day length and moderate heat.</i>
★ 15051	<b>Emerald Crown</b> <sup>F1</sup>	78**	Spring	Medium	Medium Small	DM	<i>A Sakata variety specifically bred for high quality and high yield crown cuts. Very uniform, tight heads with beads that are blue green. Nice compliment to Green Magic.</i>
★ 15044	<b>Green Magic</b> <sup>F1</sup>	75	Spring	Medium	Medium Small	DM	<i>This summer type broccoli offers very good uniformity and holding ability. It is in the mid-early maturity class and has a wide adaptability. Has a semi-dome, tight head, with medium-small bead size and good plant habit.</i>
15001	<b>Hancock</b> <sup>F1</sup>	85	Spring Summer	Medium	Small		<i>A Seminis variety with raised heads for easier picking ability. Thin-stalked variety used for either crown cut or bunching use. Very good heat tolerance.</i>
★ 15049	<b>Imperial</b> <sup>F1</sup>	85*,**	Spring	Medium	Small	DM	<i>A Sakata variety that performs best during long day conditions. Good heat tolerance. Tight head with small, dark green beads.</i>
★ 15004	<b>Millennium</b> <sup>F1</sup>	88	Spring, Summer	Large	Extra Small		<i>A highly adaptable, crown cut type, yielding high-domed heads with very small beads and exceptionally uniform head maturity. It has a round shape, good heat tolerance and less side shoots. Is anthocyanin-free and has shown strong post-harvest color retention.</i>
15509	<b>Sorrento</b> <sup>Broccoli Raab</sup>	70	Spring, Fall	Uniform large florets			<i>Sorrento is a fast-growing, early maturing variety. Uniform large florets with blue-green narrow turnip-shape leaves. Tall upright plant, slow to bolt. A perfect variety for fresh market or home gardeners.</i>
* Day length sensitive, earlier maturity when day length is longer. ** Requires warmer night time temperatures to mature, growth rate dramatically slows down under cold temperatures. *** Add 15-20 days for direct seeding.							

BROCCOLI		M=1,000 seeds				
	Priced per 1,000 seeds in these package sizes	1M	5M	25M	100M	500M*
15005	<b>Durapak 16</b>	8.15	7.55	7.20		
15009	<b>Eastern Crown</b>	10.55	9.95	9.60	9.20	9.00
15051	<b>Emerald Crown</b>	9.55	8.95	8.60	8.20	8.00
15044	<b>Green Magic</b>	8.30	7.70	7.35	6.95	6.75
15001	<b>Hancock</b>	8.50	7.90	7.55	7.15	6.95
15049	<b>Imperial</b>	8.90	8.30	7.95	7.55	7.35
15004	<b>Millennium</b>	9.95	9.35	9.00	8.60	8.40
Priced per package		1 oz.	4 oz.			
Priced per pound in these package sizes				1 #		
15509	<b>Sorrento</b> <sup>Broccoli Raab</sup>	10.85	17.30	52.00		
* Multiple packages may be used to fill orders for these quantities.						

## ALL-STARS ★ BROCCOLI

**Emerald Crown** is a perfect fit for 2nd pick spring and works for early fall harvest as well.

**Green Magic** is a great variety for early spring sowing.

**Imperial** has great heat tolerance and fits in the summer harvest slot.

**Millennium** is ideal for harvest in the fall to late fall time period.



Jeff Hess  
Vegetable Consultant





RED BALL pg. 17

# BRUSSELS SPROUTS

## PLANTING

Start in the greenhouse and transplant in early to mid summer, when one would start long season cabbage. Seeds should be planted 4 - 5 weeks before transplanting. Allow 90 - 100 days for plants to mature. For summer harvest, you must plant transplants of an early, heat-resistant variety in very early spring. Sprouts maturing in hot weather or under dry conditions are more likely to develop bitterness. Fall production is the most desirable in a large portion of the country. Plant 24" - 36" apart in the row and 30" - 36" apart in rows.

*See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.*

## MANAGEMENT

Brussels are grown much like cole crops, cabbage and broccoli.

## HARVEST

Harvest sprouts when buds form heads one to two inches in diameter. Pick sprouts when they are firm. Lower sprouts mature first.



**Natural**  
See page 125 for rates and pricing.



CHURCHILL



RED BALL



#### SAVE WITH CASH DISCOUNTS

Cash discounts are available throughout the season and are a great way to add money to your bottom line.  
See page 6 for all of the details.

December	6%
January	5%
February	4%
March	3%
April	2%

BRUSSELS SPROUTS				
		Days	Sprout Size	Plant Size
Fresh Market				
16006	<b>Capitola</b> <sup>F1</sup>	90	1 ½"	38"
16007	<b>Churchill</b> <sup>F1</sup>	80	1 - 1 ¼"	30"
16002	<b>Jade Cross Regular</b> <sup>F1</sup>	85	¾ - 1"	28"
16502	<b>Red Ball</b>	100	1"	38"

BRUSSELS SPROUTS		M=1,000 seeds			
Priced per 1,000 seeds in these package sizes		1M	5M	25M	100M
16006	<b>Capitola</b>	21.50	20.85	20.55	20.10
16007	<b>Churchill</b>	14.00	13.35	13.05	12.60
16002	<b>Jade Cross Regular</b>	9.10	8.45	8.15	7.70
16502	<b>Red Ball</b>	5.10	4.45	4.15	3.70





FAST VANTAGE  pg. 19

# CABBAGE

## PLANTING

Transplant early cabbage soon enough that it matures before the heat of summer. Planting two or three varieties with different maturities can provide harvest over a longer period of time. Late cabbage must be started during the heat of mid-summer, but it develops its main head during the cooling weather of fall. It may be transplanted or direct seeded. Plants should be planted 12" - 24" apart depending on variety and the desired head size. Sow cabbage seeds ¼" - ½" deep.

See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## MANAGEMENT

Use starter fertilizer when transplanting and side-dress with nitrogen after plants are half grown. Keep plants out of intense sunlight and heat of summer. Common problems are Yellow or Fusarium Wilt, as well as cabbage worms.

## HARVEST

Cabbage can be harvested anytime after the head has formed. For highest yield, cut the cabbage heads when they are solid (firm to hand pressure) but before they crack or split. When heads are mature, a rain may cause heads to crack or split.

## STORAGE

Fresh, uncut heads of cabbage can be stored in the refrigerator for up to two weeks. Cover loosely with a plastic bag or use perforated bags. Do not wash cabbage before storing; the extra moisture will hasten deterioration.

## DISEASE CODES

ALS - Angular Leaf Spot  
ALT - Alternaria Leaf Spot  
BR - Black Rot  
BS - Black Spec  
CR - Crown Rot  
DM - Downy Mildew  
T - Thrips  
TB - Tip Burn  
YR - Yellows Resistant





FAST VANTAGE ★



XTREME VANTAGE



GRAND VANTAGE ★



STELLAR VANTAGE ★

**Naturall™**

Enhance root growth and increase seedling vigor for healthier plants and higher yields with Naturall™ for Vegetables.  
See page 125 for rates and pricing.

CABBAGE		HYBRID					
		Days from Transplant*	Head Weight pounds	Head Type	Color	Disease Code	Features
★	17069 <b>Fast Vantage</b>	50	2 ½	Round	Medium Green		A very uniform hybrid that is slightly earlier than Headstart for the early cool season.
	17005 <b>Stonehead</b>	60	3 - 4	Round	Gray Green	TB	A popular, early hybrid for home garden or market. Solid, slow to burst heads.
	17097 <b>Platinum Dynasty</b>	70	3 - 4	Round	Blue Green	BR, TB, YR	A Seminis fresh market hybrid with excellent uniformity in the early main season time slot. Performs well in the East & Midwest both in the summer and fall.
	17048 <b>Cheers</b>	80	4 - 6	Round	Blue Green	BR, YR	A hybrid with uniform heads, larger wrapper leaves. Disease resistant. Compare to Blue Vantage.
	17011 <b>Xtreme Vantage</b>	80	5 - 6	Round	Blue Green	BR, TB, YR	Very good uniformity in field. Has a good disease package.
★	17116 <b>Grand Vantage</b>	85	5 - 6	Round	Blue Green	TB, YR <sup>1</sup>	An exciting fresh market variety with attractive green to blue-green color. Very round head 7 x 7", heavy weight, dense solid interior and short core. Tight wrapper leaves. Good holding ability and excellent yield.
★	17009 <b>Stellar Vantage</b>	85	5	Round	Blue Green	BR, YR <sup>1</sup>	Mid-late maturity with compact heads and short cores. Offers nice, dense heads and has good field-holding ability.

\* Add 10-15 days for direct seeding.

CABBAGE Hybrid		M=1,000 seeds				
Priced per 1,000 seeds in these package sizes		1M	5M	25M	100M	500M*
17048	<b>Cheers</b>	6.55	5.95	5.35	4.75	4.65
17085	<b>Emblem</b>	6.20	5.60	5.00	4.40	4.30
17069	<b>Fast Vantage</b>	6.90	6.30	5.70	5.10	5.00
17116	<b>Grand Vantage</b>	8.30	7.70	7.10	6.50	6.40
17097	<b>Platinum Dynasty</b>	6.95	6.35	5.75	5.15	5.05
17008	<b>Primo Vantage</b>	7.35	6.75	6.15	5.55	5.45
17009	<b>Stellar Vantage</b>	6.50	5.90	5.30	4.70	4.60
17005	<b>Stonehead</b>	6.45	5.85	5.25	4.65	4.55
17011	<b>Xtreme Vantage</b>	5.85	5.25	4.65	4.05	3.95

\* Multiple packages may be used to fill orders for these quantities.

## ALL-STARS ★ CABBAGE

**Fast Vantage** Look no further for your early cool season planting.

**Grand Vantage** is a great all around main season cabbage. Very good producer.

**Stellar Vantage** A later season variety which holds in the field very well.



Jeff Hess  
Vegetable Consultant



RED DYNASTY



TOY CHOY




#### SAVE WITH CASH DISCOUNTS

Cash discounts are available throughout the season and are a great way to add money to your bottom line. See page 6 for all of the details.

December.....	6%
January.....	5%
February.....	4%
March.....	3%
April.....	2%

CABBAGE		SPECIALTY Hybrid				
		▲ Days from Transplant*	Head Weight pounds	Head Type	Color	Disease Code      Features
17090	<b>Red Dynasty</b>	72	3 ½ - 5	Slightly Flat Round	Red	BR, TB <i>A Seminis red cabbage with the right size for fresh market plus intermediate black rot resistance.</i>
17070	<b>Red Jewel</b>	75	3 - 5	Round	Purple Red	TB <i>Sakata hybrid that is widely adaptable with very good holding ability. Excellent uniformity and yield potential.</i>

\* Add 10-15 days for direct seeding.

CABBAGE		CHINESE 				
		▲ Days from Transplant*	Head Weight pounds	Head Type	Color	Disease Code      Features
<i>Fresh Market</i>						
18010	<b>Blues</b> <sup>F1</sup>	57	4 - 5	Napa	Green	ALS, BS, DM <i>Extra slow bolting, high disease tolerance, superior performance in spring or early fall.</i>
18017	<b>Yuki</b> <sup>F1</sup>	67	4 - 5	Napa	Green	BS, CR, TB <i>Yuki is a medium maturing, China Pride type hybrid. Good uniformity and size.</i>

\* Add 10-15 days for direct seeding.

CABBAGE		CHINESE Pak-Choi			
		▲ Days	Head Type	Color	Features
49013	<b>Toy Choy</b> <sup>F1</sup>	30 - 35	Celery	White	<i>A compact hybrid Cantonese Pak Choi with thick, broad, milky white petioles and glossy, dark green leaves. Perfect for growers servicing Asian markets.</i>

CABBAGE SPECIALTY Hybrid		M=1,000 seeds				
Priced per 1,000 seeds in these package sizes		1M	5M	25M	100M	500M
17082	<b>Huron</b>	12.95	12.35	11.75	11.15	11.05
17090	<b>Red Dynasty</b>	10.10	9.50	8.90	8.30	8.20
17070	<b>Red Jewel</b>	9.50	8.90	8.30	7.70	7.60
17041	<b>Savoy King</b>	10.40	9.80	9.20	8.60	8.50

CABBAGE CHINESE		M=1,000 seeds			
Priced per 1,000 seeds in these package sizes		1M	5M	25M	100M
18010	<b>Blues</b>	3.80	3.20	2.90	2.30
18017	<b>Yuki</b>	5.25	4.65	4.35	3.75

CABBAGE CHINESE Pak-Choi		M=1,000 seeds			
Priced per 1,000 seeds in these package sizes		1M	5M	25M	100M
49013	<b>Toy Choy</b>	3.75	3.15	2.85	2.25

## ONLINE VEGETABLE PRODUCTION RESOURCES

### [www.ruppseeds.com/MVPG](http://www.ruppseeds.com/MVPG)

The 2020 edition of Purdue University's "Midwest Vegetable Production Guide for Commercial Growers" which includes spacing, fertilizing and harvesting information, as well as information on diseases, pest management and weed control.



### [www.ruppseeds.com/uoiVeg](http://www.ruppseeds.com/uoiVeg)

University of Illinois Extension Vegetable Gardening Basics.



### [www.ruppseeds.com/MAVR](http://www.ruppseeds.com/MAVR)

The 2020 edition of the Mid-Atlantic Commercial Vegetable Production Recommendations.



### [www.ruppseeds.com/MSUipm](http://www.ruppseeds.com/MSUipm)

Michigan State University's guide for Integrated Pest Management in commercial vegetable production.



### [www.ruppseeds.com/OSUVeg](http://www.ruppseeds.com/OSUVeg)

The Ohio State University Extension Vegetable Crops website with research reports on many crops. The site also includes a listing of vegetable team members by expertise and how to contact them.



### [www.ruppseeds.com/NCShort](http://www.ruppseeds.com/NCShort)

North Carolina State University's Department of Horticulture Science website.



### [www.ruppseeds.com/PSUext](http://www.ruppseeds.com/PSUext)

Penn State University's Department of Plant Pathology, Vegetable Disease Identification.







BOLERO

NEW

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Vilmorin

# CARROTS

When deciding what variety of carrot to plant one must determine two things: "What is my target audience?" and "What kind of soil do I have?" Growers need to define if they are selling to fresh or storage markets. Most of the carrots available from Rupp are geared towards fresh market. If high tunnels or cold frames are used in your operation, you may want to consider carrots as part of your rotation due to their ability to resist cold weather.

There are five main types of carrots: Nantes, Chantenay, Baby, Imperator, and Danvers.

- Nantes are easily and widely adapted; straight cylindrical roots ranging 5" - 7" long. They tend to have a sweet flavor and crisp texture, but have a limited storage potential. Nantes are grown in loose sandy soils or in raised beds.
- Chantenay have conical roots with broad shoulders and rounded tips. They have a rich, sweet flavor and also possess a good storage potential. They are an excellent type to grow from summer to fall and are adapted to various soil types. They usually size up well in clay soils with high organic matter content.

- Baby carrots have a root less than 5" long with a crisp texture and are frequently quite sweet when mature. They also are grown in any well drained soil and can be used to separate different types of salad greens. They tend to have limited storage potential.
- Imperator are long with a tapered root shape, stocky shoulders and strong tops. They tend to have a fibrous texture and store well. This type of carrot sizes up best in deep, sandy loam.
- Danvers have a thick rooted cylindrical shape with a yellowish core. This type is mainly used for processing, juicing, and storage.

## PLANTING

Carrots can be planted in soils as cool as 40°F with the ideal temperature ranging from 50 to 75°F. They take anywhere from 7 - 21 days to emerge from the soil depending on soil temperatures. Spring carrots are planted 2 - 3 weeks before the last frost. For fall harvest, plant carrots 10 - 12 weeks before the first frost. Seed carrots ¼" - ½" deep and 15" between rows. Using seed tapes or pelleted seed will help prevent over seeding.

See "Germination Chart" on page 127 for additional information on germination rate and

days to germination at various soil temperatures.

## MANAGEMENT

Soil nutrients are very important. Test the soil to check for optimal levels. Also scout for insect and fungal infestations. Root quality is best when soil temperatures are 60 - 70°F. The shape of the root is determined within the first few weeks after germination when the new plant extends its taproot deep into the soil. Sometimes growers will mix radish seed with carrot seed to help with emergence. Radishes tend to have the ability to break through soil crusting which in turn helps the carrots emerge.

## HARVEST

Fresh market carrots are harvested when they are ¾" - 1½" in diameter.

## STORAGE

Store carrots at 32 - 34°F and at 98 - 100% humidity. Store clean carrots away from other fruits and vegetables.



GOLD NUGGET



HERCULES



ENTERPRISE



MUSICO



OLYMPUS



VIPER

CARROTS		Hybrid				
		Maturity	Size	Type	Interior	Features
<b>NEW</b> 19032	<b>Bolero</b>	Early	8"	Nantes	Orange	<i>Bolero is a proven variety year in and year out as a versatile nantes suited for bunching, slicing and baby nantes markets.</i>
19026	<b>Enterprise</b>	Early Main	12 - 14"	Imperator	Dark Orange	<i>A Seminis fresh processing cut and peel or slicing carrot with long, smooth, dark orange roots with a small core. Resists cracking. Strong top with good leaf blight tolerance.</i>
19014	<b>Gold Nugget</b>	Medium Early	7.5 - 8"	Nantes	Yellow	<i>Sweet flavor. Very uniform with high production. Medium vigor. Erected with a strong top and good aptitude for harvesting by top lifting.</i>
19005	<b>Hercules</b>	Early	7 - 7.5"	Chantenay	Orange	<i>An early-maturing, extremely smooth Chantenay-Kuroda type with strong tops. High yielder. Excellent juicing carrot. Average Brix 8.5-9.</i>
19006	<b>Musico</b>	Early	7 - 8"	Nantes	Dark Orange	<i>A uniform, cylindrical root with well-rounded tips at maturity. Strong attachment for harvest by lifting or bunching. Very good internal quality. A good replacement for Primo.</i>
19007	<b>Olympus</b>	Main	7 - 9"	Imperator	Dark Orange	<i>Outstanding for bunching. Great color combined with a smooth finish. Very crisp texture and excellent flavor. Classy hybrid with high yield potential.</i>
19009	<b>Viper</b>	Main	12 - 14"	Imperator / Cut & Peel	Bright Orange	<i>Was bred for higher density plant populations and maintains its long length to maximize yield for two inch pieces. Small, indistinctive core and incredible top strength with good stem attachment for easy harvesting. Combines a great flavor profile and very crisp texture.</i>

CARROTS		OP				
		Maturity	Size	Type	Interior	Features
19505	<b>Little Finger</b>	Early	3 - 4"	Baby	Bright Orange	<i>Used for baby carrots.</i>

CARROTS Hybrid		M=1,000 seeds			
Priced per 1,000 seeds in these package sizes		10M	100M	1,000M	5,000M
19032	<b>Bolero</b>	1.35	1.00	0.95	0.92
19026	<b>Enterprise</b>	1.02	0.67	0.62	0.59
19014	<b>Gold Nugget</b>	1.35	1.00	0.95	0.92
19005	<b>Hercules</b> <sup>F300</sup>	0.82	0.47	0.42	0.39
19006P	<b>Musico</b> <sup>Pelleted</sup>	1.32	0.97	0.92	0.89
19006	<b>Musico</b>	1.27	0.92	0.87	0.84
19007	<b>Olympus</b> <sup>F300</sup>	0.92	0.57	0.52	0.49
19009	<b>Viper</b>	0.93	0.58	0.53	0.50

CARROTS OP		Priced per package		1 oz.	4 oz.
		Priced per pound in these package sizes		1#	5#
19505U	<b>Little Finger</b> <sup>Untreated</sup>	5.00	7.95	21.00	20.50





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# CAULIFLOWER

## PLANTING

Cauliflower is best started from transplants for both spring and fall crops. Do not transplant sooner than 2 - 3 weeks before the average frost free date in the spring. Cauliflower is more sensitive to the cold than its cabbage-family relatives. It is important to start cauliflower early enough that it matures before the heat of the summer, but not so early that it will be injured by the cold. Transplant autumn cauliflower and cabbage at the same time. Use starter fertilizer when transplanting. Start the transplants so that they grow actively until transplanting and never cease growth. Space transplants 18 - 24" apart in the row. Use wider spacing for fall plantings.

See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## MANAGEMENT

Cauliflower plants should be kept growing vigorously from the seedling stage through harvest. When the heads begin to form (shows 2 to 3" of white curd at the growing point), it is ready to blanch. Tie the outer leaves together over the center of the plant to protect the head from sunburn, to keep it from turning green and developing an off-flavor. When selecting cauliflower choose varieties that are self wrapping. This will help in the blanching process.

## HARVEST

The curd develops rapidly under proper growing conditions. It grows 6 - 8" in diameter and is ready to harvest within 7 - 12 days after blanching begins. The mature heads should be compact, firm, and white. Harvest the heads by cutting the main stem. Leave a few green outer leaves attached to protect the heads. Cut the heads before they become over mature and develop a coarse "ricey" appearance. Once individual florets can be seen, quality deteriorates rapidly.



DEPURPLE



SYNERGY ★



FLAME STAR



SHAKARIS ★



CHEDDAR



GRAFFITI

## CAULIFLOWER



			Days from Transplant	Head Type	Plant Size	Self Wrapping	Sowing Season	Features
★	20015	<b>Minuteman</b> <sup>F1</sup>	60	Deep Dome	Medium	Good	Spring	An early and widely adapted hybrid from Seminis that has performed well when harvested in the summer heat and early fall. Superior head quality.
	20005	<b>Candid Charm</b> <sup>F1</sup>	65	High Dome	Large Semi Erect	Good	Spring Summer	A second early, heavy yielding hybrid for spring sowing.
	20013	<b>DePurple</b> <sup>F1</sup>	68	Domed	Medium, Erect	Very Good	Spring, Summer	Lavender/pink variety that offers uniform maturity and consistent performance under a variety of environmental conditions. Ideal for the specialty color market.
	20020	<b>Freedom</b> <sup>F1</sup>	70	Domed	Large	Excellent	Spring Summer	A mid season hybrid from Seminis with more uniformity for harvest.
★	20009	<b>Synergy</b> <sup>F1</sup>	75 - 80	Domed	Medium	Excellent	Spring	An Enza variety especially suited for summer production. Will give good covering for nice white curds in the heat.
	20014	<b>Flame Star</b> <sup>F1</sup>	80	Semi Dome	Medium, Erect	Good	Spring, Summer	Beautiful semi-orange variety targeted to the specialty color market. Produces medium-size plant with high yields of smooth, dense, well-shaped heads. Versatile for fresh market or processing markets.
★	20006	<b>Shakaris</b> <sup>F1</sup>	80 - 85	Domed	Compact	Very Good	Spring Summer	Great for fresh market and processing. Consistent head size with abundant yield potential. Notable white curd.
	20021	<b>Cheddar</b> <sup>F1</sup>	85 - 90	Domed	Medium	Poor	Summer Only	A Seminis orange cauliflower that holds well in the field. Brighter when lightly cooked. A market attention getter.
	20025	<b>Graffiti</b> <sup>F1</sup>	85 - 90	Domed	Medium, Erect	Fair	Spring Summer	A unique deep purple hybrid from Syngenta which needs sunlight to obtain full color. Works well raw or steamed - add a small amount of lemon juice when cooking to retain the color.

## CAULIFLOWER

M=1,000 seeds

		250 Seeds					
	Priced per package						
	Priced per 1,000 seeds in these package sizes		1M	5M	25M	100M	500M*
20005	<b>Candid Charm</b>	13.40	12.75	12.30	11.85	11.75	
20021	<b>Cheddar</b>	22.90	70.40	69.40	68.40	67.40	67.15
20013	<b>DePurple</b>	23.50	72.25	71.25	70.25	69.25	69.00
20014	<b>Flame Star</b>	23.50	72.25	71.25	70.25	69.25	69.00
20020	<b>Freedom</b>	11.30	34.75	33.75	32.75	31.75	31.50
20025	<b>Graffiti</b>	23.50	72.25	71.25	70.25	69.25	69.00
20015	<b>Minuteman</b>	16.70	16.05	15.60	15.15	15.05	
20006	<b>Shakaris</b>	18.10	17.45	17.00	16.55	16.45	
20009	<b>Synergy</b>	18.75	18.10	17.65	17.20	17.10	

\* Multiple packages may be used to fill orders for these quantities.

## ALL-STARS ★ CAULIFLOWER

**Minuteman** A very nice, early variety that's perfect for summer harvest.

**Synergy** handles the heat very well for late summer harvest.

**Shakaris** is perfect for fall harvest and also has a fantastic self-wrapper.



Jeff Hess  
Vegetable Consultant





HUDSON



VICTORIA



TOP BUNCH 2.0



VATES

## CELERY

		Maturity	Color	Plant Height	Stalk Length	Features
21003	<b>Hudson</b> <sup>F1</sup>	Mid season	Dark Green	26"	14-16"	A tall, compact, high yielding celery with an excellent petiole count. Excellent fusarium tolerance. A popular mid-season variety.
21001	<b>Victoria</b> <sup>F1</sup>	Early / main season	Medium Green	25"	14"	Tall with fleshy petioles. Quick growing with good standing ability and is slow to bolt in early plantings. Performs well under adverse spring conditions.

## COLLARDS



		Days	Features
22501	<b>Top Bunch 2.0</b> <sup>F1</sup>	70	Early maturing variety that resembles Top Bunch with wavy, lightly savoyed leaves that regrow quickly after harvest.
22001	<b>Vates</b>	75	A popular non-heading, slow bolting collard with large blue-green leaves. Frost-resistant greens especially suited to the Mid-Atlantic region.

## CELERY

M=1,000 seeds

		1M	10M	25M
21003P	<b>Hudson</b> <sup>Pelleted</sup>	6.70	6.25	5.90
21001P	<b>Victoria</b> <sup>Pelleted</sup>	6.70	6.25	5.90

## COLLARDS

	Priced per package	1 oz.	4 oz.	
	Priced per pound in these package sizes			
22003	<b>Champion</b>		5.40	17.60 17.35
22501	<b>Top Bunch 2.0</b>	36.75	104.90	310.75 309.75
22001	<b>Vates</b>		5.95	19.70 19.45

## HIGH TUNNEL & PROTECTED CULTURE INDEX

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Look for this symbol for items that are recommended for high tunnel and protective culture production.



## HIGH TUNNEL PRODUCTION

A high tunnel is a naturally heated enclosed structure that is used to grow produce while extending the growing season and controlling agronomic conditions. Also known as “hoop houses”, high tunnels are typically constructed with tubular steel frames covered by plastic, and their use is rapidly gaining popularity across the Midwest and Northeast. High tunnels significantly increase the average daily temperature of the growing environment while protecting crops from wind, rain, snow, hail, insects and diseases.

A primary advantage of high tunnels over other protection systems is that they are large enough to allow crops to be grown to full maturity and allow sufficient space for cultivation, spraying, and harvesting with the tunnels intact. By extending the season, most crops grown within a high tunnel are harvested at least a month earlier or later than field grown crops, which will earn growers a premium in the marketplace.

### *Which crops are typically grown within a high tunnel?*

Any crop where premiums for availability of early or late fresh produce is a good candidate for high tunnel production.

Crops which have an early premium such as tomatoes, peppers, cucumbers or salad greens are particularly suitable, with tomatoes being the #1 crop grown in high tunnels. We recommend choosing crops with a high yield potential and high value per unit in order to recoup your investment.

### *How many crops can be produced within a high tunnel per year?*

At least three cropping cycles are realistic for high tunnels in most climates. Two warm season and one cool season crops within a 12 month period are feasible. With intercropping (the growing of two or more crops simultaneously), the combination of crops is almost infinite.

### **Planning for your high tunnel**

High tunnel production carries with it a modest learning curve for growers experienced with open field production. There are several key factors that should be considered when planning to grow produce in a high tunnel.

### **Variety Selection**

Choosing the right variety for your high tunnel is important. Varieties that perform well in the open field will not necessarily perform the same in a high tunnel.

While some growers have learned how to adapt their cropping practices in order to use open field varieties in high tunnels, going this path will require some trial and error. We have highlighted several varieties in our catalog that have a proven track record in high tunnel production.

### **Fertility**

The proper nutrient program is important since you are dealing with crops that are demanding high input to produce above average yields. If you are planting in soil, take a soil test to see what nutrients need to be added. If you're using soil bags, make sure to keep them flushed so that the salt index does not get too high.

The first priority in your fertility program is to focus on building plant structure and then concentrate on the flowering and fruit production of the plant.

For more information on specific fertility needs we suggest contacting: ISP Technologies Inc. or Miller Chemical and Fertilizer LLC.

ISP Technologies Inc.  
Gary Schafer: 785-760-0415  
Ray Sawyer: 785-760-0993  
[www.ruppseeds.com/ISPtech](http://www.ruppseeds.com/ISPtech)



Miller Chemical and Fertilizer LLC  
800-233-2040  
[www.ruppseeds.com/MillerC](http://www.ruppseeds.com/MillerC)



### **Pruning and Trellising**

The training process begins as soon as the plants are planted in the soil medium. Building the structure and correct biomass of the plant is essential for optimal fruit production and disease prevention. This is one of the biggest learning curves when growing in the high tunnels because it depends on crop type and variety.

For example, growers that are growing indeterminate tomatoes will trellis their tomatoes on a one-leader system, whereas determinate varieties are trellised on a two-leader system. Pruning requirements will vary by variety depending on how vigorously that variety's plant grows. Determining the correct bio-mass of the plant for optimal fruit production is an ongoing learning curve. Consult with high tunnel crop advisors, as well as your seed rep, for advice on pruning practices for certain hybrids.

### **Pollination**

A number of vegetable crops require pollinators such as bees to be present in

order for pollination to take place and fruit to set. These crops include melons, some cucumbers and squash. If wild bees are present, they may enter the high tunnel naturally. Planting cover crops such as hairy vetch, dill and alyssum around a high tunnel will help attract pollinators. If bees are not naturally present, many growers either hand-pollinate or purchase pollinators for release in the high tunnel. Contact Koppert Biological at 810-632-8750 or [www.ruppseeds.com/KoppertUS](http://www.ruppseeds.com/KoppertUS) if you need to purchase pollinators.



Some cucumber varieties that are targeted for high tunnel and greenhouse production are parthenocarpic, meaning that they will set fruit without pollination, and thus don't require pollinators. All the varieties listed in the cucumber protected culture section are parthenocarpic.

### **Air Circulation**

Circulation is vital to suppress disease. Increased disease pressure comes with stagnant and humid air, which is prevalent in a high tunnel setting. Typically, high tunnels have sides that can be rolled up, but for vertical production, fans should be installed in the upper regions of the structure to provide complete air flow movement.

### **Pest Management and Scouting**

There are certain diseases that should be scouted for on a regular basis such as: grey leaf mold (boytritus), white mold and powdery mildew. In addition, pests such as spider mites, thrips and white flies could also be present and should be included in the scouting plan. Check with your local extension agent or crop protection advisor for products that may help you control any identified disease and pest issues.

High tunnel production is growing and crop practices continue to develop as growers gain experience with production in protected culture environments. The knowledge and experience of our staff is also continuing to develop in this area and we look forward to providing support to our customers and learn from them as we grow together.

Look for this symbol in the product description tables marking items that work well in high tunnel / protected culture use.







XANADU **NEW** pg. 39

# CORN

## PLANTING

Plant seeds 8 - 12 inches apart on 30 inch rows to achieve optimum yield. Seed depth should be  $\frac{3}{4}$ " -  $1\frac{1}{2}$ " depending on soil conditions, and genetic type. Plant when soil temperature is 60° F plus. Planting in blocks will also help increase uniformity in pollination. See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## SEEDING RATE

18,000 - 22,000 seeds per acre or one seed every 8 - 12 inches. To achieve this singulation use a finger or air seed delivery system.

## MANAGEMENT

Be sure to read "Managing Insects in Sweet Corn" on page 44. Also take a look at our "Insect Scouting Resources" on page 44. Scout field every 7 days to check for insect, weed, and disease pressure. For identification of weeds, insects, and diseases consult your local extension office or view the Midwest Vegetable Production Guide. [www.ruppseeds.com/MVPG](http://www.ruppseeds.com/MVPG)

## ISOLATION

For all high quality sweet corn varieties, maintaining an isolation is required to protect the high sugar and flavor characteristics of the sweet corn as cross pollination from other types of sweet corn or different types of corn will result in starchy kernels.

SE/Synergistic types and SH2/Improved Super Sweet types should be isolated both from each other and from other types of corn including field corn, popcorn, and ornamental corn.

An isolation can be achieved either by distance or by a difference in maturity. Preferable isolations would require 700 - 1000 feet distance from other corns, or 10 - 14 days between pollination.

## RELATIVE MATURITY

Sweet corn maturities are publicized as days to relative maturity. This information comes from supplier data, as well as our trial observations in the Midwest. Prolonged excessive heat or cool temperatures can cause maturity dates to fluctuate to some degree. Monitor your crop through the growing season in order to pick at optimum freshness.

## HARVEST

Harvest sweet corn when the end kernels of the ear feel developed. Approximately 21 - 25 days after half silk. Sample sweet corn to ensure quality.

## STORAGE

Pre-cool cob temperature to 50°F. After pre-cooling store at 34°F and 95% humidity.

## DISEASE CODES

MDM - Maize Dwarf Mosaic  
NLB - Northern Leaf Blight  
SLB - Southern Leaf Blight

## DISEASE RATINGS

R - Resistant  
M - Moderate Resistant  
MS - Moderately Susceptible  
S - Susceptible

## USE RECOMMENDATIONS

FM - Fresh Market  
HG - Home Garden  
P - Processing  
S - Shipping



# GROWER PREFERRED ALL-STARS ★ CORN

## PERFORMANCE SERIES

**Anthem XR II** (BC SH2 page 30) Enjoy all the benefits of Anthem XR and Anthem II, combined in one hybrid. Brings the best of both worlds; the rust protection offered by Anthem XR, in tandem with Anthem II's Roundup and BT Performance Series traits.

**SV9010SA** (BC SH2 page 30) is the Performance Series version of EX08767143. It has the same characteristics with the addition of Roundup herbicide resistance and ECB, earworm and fall army worm protection. Good variety for machine harvest.

**SV9014SB** (BC SYN page 30) is a great mid-season corn with good flavor and eating quality, nice husk package and tip cover. Good for roadside and local markets. It also has Roundup herbicide resistance and ECB, earworm and fall army worm protection.

## ATTRIBUTE PLUS INSECT PROTECTED

**Milky Way** (WH SYN page 32) A conversion of WH 0809 and Avalon with added stacked Attribute II traits. This variety has glyphosate herbicide tolerance as well as increased protection to European corn borer, corn earworm, armyworm, and Western bean cutworm.

## ATTRIBUTE II INSECT PROTECTED

**Pursuit** (BC SYN page 32) Compare to Remedy. Does not exhibit the tassels and/or glumes under stress conditions that Remedy reveals. Has lighter green husk with a few flags.

## SH2 / IMPROVED SUPER SWEETS

**Anthem XR** (BC SH2 page 38) One of our most top performing varieties for its cold soil vigor, agronomics, and eating quality. With its strong rust resistance and moderate resistance against NCLB, Anthem XR performs well in the early season and goes late into the season.

**Enchanted** (BC SH2 page 40) Strong vigor in the late season and performs well in adverse conditions, especially in drought conditions. Nice tall plant with high ear placement and good eating quality. Good variety for the maturity and late season.

**Kickoff XR** (BC SH2 page 38) Currently one of the earliest maturing higher eating quality SH2's on the market. Excellent cold soil vigor with excellent agronomics to grow through the cold spring, producing a nice husk package, high yields, ear, and great eating quality for that first early market.

**Nirvana** (BC SH2 page 38) - For those looking for a tender, high eating quality sweetcorn, Nirvana is one that has raised the bar for eating quality for many of our customers. Good vigor with consistent plant type and quality.

**Xtra Tender 274A** (BC SH2 page 38) has proven to be the best cold soil tolerant variety in the SH2 category. With excellent eating quality and flavor, it does well in roadside and local markets.

## SH2 / IMPROVED SUPER SWEETS CONTINUED

**7401 Imp** (W SH2 page 41) has been a trifecta hit with our growers. With its very tender kernel, high eating quality, strong and healthy plant type, excellent husk package and cover, this variety has had both roadside growers and shippers coming back for more.

**Eden** (W SH2 page 41) In trial after trial, it has proven itself to be exceptional on every level.

**Glacial** (W SH2 page 41) has taken the white sweetcorn market by storm with its very high eating quality, tenderness, and ear size. Strong plant type and grows well through adverse conditions producing a consistent plant type and ear size.

**Takeoff** (Y SH2 page 43) has been a trifecta hit with our growers. With its very tender kernel, high eating quality, strong and healthy plant type, excellent husk package and cover, this variety has had both roadside growers and shippers coming back for more.

## SYNERGISTIC

**Allure** (BC SYN page 37) is an excellent replacement for Kristine for a mid-season corn. Allure has the full package: good early vigor, nice husk package and excellent flavor.

**Cappuccino** (BC SYN page 37) a 73 day variety with great cold soil tolerance for first and second harvest. Strong disease package to hold up against NCLB and Rust as well as being a good rain gap planting in the mid to late season with later maturing varieties while still holding your markets eating quality.

**Montauk** (BC SYN page 37) is a proven variety with high yields and excellent flavor. It is a farmer's market favorite for yield and customer satisfaction.

**Providence** (BC SYN page 37) is our #1 selling bi-color Synergistic. It is the roadside growers choice for consistent sweetness and overall quality

**Mirage** (WH SYN page 41) is the white version of Essence, which makes this one of our highest eating quality white Synergistic sweet corns. Tall, strong, and healthy plant type with good flavor and holdability in the field. Excellent, dark green husk package and good husk cover.

**Honey Select** (Y SYN page 42) is one of the highest eating quality yellow varieties on the market today.



*Jeff Werner*  
Vegetable Consultant



TEMPTATION II



ANTHEM XR II ★



OBSESSION II



PASSION II



SV9010SA ★



DEVOTION II



SV9012SD



SV9014SB ★



#### INOCULANT FOR SWEET CORN

SabrEX™ root inoculant is available for sweet corn. Apply at a rate of .5 oz. per 50 pounds of seed.

See page 125 for more information and pricing.

## CORN

## PERFORMANCE SERIES™

Can be sprayed with Roundup brand agricultural herbicide.

		Relative Maturity	Color	Ear Size length x diameter	Kernel Rows	Rust	Stewart's	NLB	Use	Eating Quality	Features		
SE													
02138	Temptation II		72	Bi-Color	7 1/2 - 8 x 1.9"	16 - 18	M	R	M	FM	**	Compare to Temptation. Has excellent cold soil tolerance for first or second early plantings.	
SH2													
	03132	Anthem XR II		74	Bi-Color	8 x 1.8"	14 - 18	R	-	-	FM, S	****	Enjoy all the benefits of Anthem XR and Anthem II, combined in one hybrid. Brings the best of both worlds; the rust protection offered by Anthem XR, in tandem with Anthem II's Roundup and BT Performance Series traits.
	03080	Obsession II		80	Bi-Color	8 - 8 1/2 x 1.8"	16 - 20	M	M	M	FM, S	***	Compare to Obsession. Straight SH2 type that eats very similar to many improved supersweets. High-end yields.
	03082	Passion II		81	Yellow	8 x 1.7"	18 - 20	M	S	S	FM, S	***	Compare to Passion. High quality SH2 with excellent shipping ability. A yellow version of Obsession.
	03084	SV9010SA		81	Bi-Color	8 x 1.9"	18 - 20	R	M	M	FM, S	***	Compare to 7143. Improved version of Obsession with better rust package and husk package eye appeal.
	03098	Devotion II		82	White	8 x 1.7"	16 - 18	-	M	-	FM, S	***	Compare to Devotion. White Obsession type.
	03086	SV9012SD		83	Yellow	8 x 2"	18 - 20	R	S	S	FM, S	**	Compare to 1336. An improved Passion with better tip cover.
Synergistic													
	04026	SV9014SB		78	Bi-Color	7.8 x 1.9"	18 - 20	R	M	M	FM	****	Maintains the same great taste and eating quality of other high quality synergistic varieties.

Performance Series™ sweet corn varieties are the only fresh market sweet corn products featuring the unique weed control benefits of Roundup WeatherMAX® and Roundup PowerMAX® agricultural herbicides. Be sure to read the label and confirm that the chemical you are spraying is 100% glyphosate with no other active ingredients.



#### EATING QUALITY RATING

Rupp Seeds 5 Star rating system is used to help growers differentiate sweetcorn varieties within each genetic class for eating quality based on sweetness, tenderness and corn flavor. These ratings are an average of our sampling scores that are compiled from multiple locations across various growing regions.



## Seminis® Performance Series™ sweet corn hybrids; another innovation that performs all season long.

Growing sweet corn might be something your family has done for generations. Or maybe it's the beginning of a new tradition. Either way, when you plant Seminis® Performance Series® sweet corn, you and your family will enjoy a great-tasting ear that you can eat fresh from the field. Performance Series® sweet corn contains the same great Roundup Ready® technology and protection from select above- and below-ground insect pests that row crop farmers are already familiar with.

### Key Management Practices to Maximize Quality and Yield

- Scouting for Corn Earworm should begin prior to first silk & continue through harvest
- Use traps to monitor & count adult moths in the area
- Spray programs will be needed to maximize marketable yield

Additional information can be found in Monsanto's Technology Use Guide found at the following link: [www.ruppseeds.com/BayerTUG](http://www.ruppseeds.com/BayerTUG)

*Note: Performance Series sweet corn packages cannot be repackaged or resold. Customers need to be licensed and must be the operator/grower for all fields where the seed will be planted. Not available for purchase or use in certain counties of Oregon and Idaho.*

### Documents Required:



In order to purchase Performance Series sweet corn, you must have a valid Monsanto Technology License. If you are licensed, please include your license number on the order form in the space provided. **If you**

**are not licensed you may visit** [www.ruppseeds.com/Agcelerate](http://www.ruppseeds.com/Agcelerate) **or call 1-800-768-6387 ext. 3 to register** or we can mail you a 2021 Monsanto Technology/Stewardship Agreement to fill out prior to us shipping your seed. Allow 3 - 4 weeks for mailed application to be processed.

## CORN PERFORMANCE SERIES™

M=1,000 seeds

Priced per 1,000 seeds  
in these package sizes

	25M	100M
<b>SE</b>		
02138 <b>Temptation II</b> Cruiser	14.63	14.63
<b>SH2</b>		
03132 <b>Anthem XR II</b> Cruiser	16.60	16.60
03098 <b>Devotion II</b> Cruiser	16.07	16.07
03080 <b>Obsession II</b> Cruiser	16.76	16.76
03082 <b>Passion II</b> Cruiser	16.43	16.43
03084 <b>SV9010SA</b> Cruiser	16.77	16.77
03086 <b>SV9012SD</b> Cruiser	16.20	16.20
<b>Synergistic</b>		
04026 <b>SV9014SB</b> Cruiser	15.05	15.05



Cruiser® seed treatment insecticide guards against a broad spectrum of early season sucking and chewing insect pests in beans and sweet corn. By protecting the crop from the start, growers can improve stand establishment, enhance plant vigor and increase yield potential. <http://www.syngenta-us.com/crop-protection/seed-treatment/products>



Cruiser® treated items are highlighted in purple in the price tables. Look for this symbol in the product description tables marking Cruiser treated items.

## INSECT RESISTANCE // HERBICIDE TOLERANCE

	Seminis Performance Series™	Syngenta Attribute® I	Syngenta Attribute® Plus	Syngenta Attribute® II
<b>Key Sweet Corn Pest</b>				
<b>European Corn Borer</b>	E	E	E	E
<b>Corn Earworm</b>	VG*	F-G*	E*	E*
<b>Fall Armyworm</b>	E	G	E	E
<b>Black Cutworm</b>			VG	VG
<b>Additional Above-Ground Pests</b>				
<b>Southwestern Corn Borer</b>	x		x	x
<b>Sugarcane Corn Borer</b>	x		x	x
<b>Common Stalk Corn Borer</b>	x		x	x
<b>Southern Cornstalk Corn Borer</b>	x		x	x
<b>Beet Armyworm</b>			x	x
<b>Dingy Cutworm</b>			x	x
<b>Western Bean Cutworm</b>			x	x
<b>Additional Below-Ground Pests</b>				
<b>Western Corn Rootworm</b>	x			
<b>Northern Corn Rootworm</b>	x			
<b>Mexican Rootworm</b>	x			
<b>Protein</b>	Cry1A.105, Cry2Ab	Cry1Ab	Vip3A, Cry1Ab	Vip3A, Cry1Ab
<b>Herbicide Tolerance</b>	Glyphosate	Glufosinate	Glufosinate	Glufosinate

\* Depending on ear worm population [flight counts] additional scouting and spraying may be needed. Learn more by reading "Managing Insects in Sweet Corn" on page 44.

Key: E= excellent, VG= very good, F-G= fair to good, G= good





BSS 0977



WH 0809



BC 0528



BC 0805







PATRIARCH







BSS 0761

CORN		ATTRIBUTE® Insect Protection										Can be sprayed with glufosinate herbicide.
		Relative Maturity	Color	Ear Size length x diameter	Kernel Rows	Rust	Stewart's	NLB	Use	Eating Quality	Features	
SH2												
03137	<b>BSS 0977</b>	78	Bi-color	8 x 1.8"	14 - 16	R	M	M	S	**	A mid-season fresh market shipper. Has an attractive ear with excellent tip fill, plus disease and ear worm control.	
Synergistic												
04018	<b>WH 0809</b>	80	White	8 ½ x 1.9"	16	R	M	S	FM	***	A white Triplesweet from Syngenta with good eating quality and disease protection. Avalon BT.	
04207	<b>BC 0528</b>	81	Bi-color	8 ¼ x 1.9"	16 - 18	-	-	-	FM, HG	****	Bt version of Primus	
04019	<b>BC 0805</b>	82	Bi-color	8 x 1.9"	16 - 18	R	S	S	FM	***	A rust resistant, Bt version of Providence.	

Attribute® varieties are resistant to Liberty herbicides. They may be sprayed with conventional corn herbicides as well as Liberty (glufosinate) herbicides. Be sure to read the label and confirm that the chemical you are spraying is 100% glufosinate with no other active ingredients.

CORN		ATTRIBUTE® PLUS Insect Protection										Can be sprayed with glufosinate herbicide.		
SH2														
03108	Patriarch		79	Bi-color	8 x 2"	16	-	-	-	FM, S	****	Augmented supersweet variety with excellent adaptability. Possesses girthy ear with great tip fill. Robust Attribute Plus package.		
03101	BSS 0761		80	Bi-color	8 x 1.8"	16 - 18	-	-	-	FM, S	****	Offers exceptional eating quality and is ideal for the high end shipper and local markets. Has built-in insect protection and tolerance to Liberty herbicide through the Attribute trait stack.		
Synergistic														
	04042	Milky Way		82	White	8 ¼ x 1.8"	16	M	-	-	FM, HG	***	The next generation of market-leading TripleSweet varieties. Offers improved insect resistance and tolerance to Liberty herbicide through the Attribute Plus trait stack.	
Attribute® varieties are resistant to Liberty herbicides. They may be sprayed with conventional corn herbicides as well as Liberty (glufosinate) herbicides. Be sure to read the label and confirm that the chemical you are spraying is 100% glufosinate with no other active ingredients.														

Attribute® varieties are resistant to Liberty herbicides. They may be sprayed with conventional corn herbicides as well as Liberty (glufosinate) herbicides. Be sure to read the label and confirm that the chemical you are spraying is 100% glufosinate with no other active ingredients.

CORN			ATTRIBUTE® II Insect Protection										Can be sprayed with glufosinate and/or glyphosate herbicides.	
Synergistic														
	04055	<b>Quick Trip</b> 	72	Bi-color	7.5 x 1.8"	14 - 16	-	-	-	FM	***	A bi-color, TripleSweet type, Quick Trip boasts a dark green husk with nice flags.		
	04034	<b>Aspire</b> 	80	Yellow	8 ½ x 1.8"	14 - 16	R	-	-	FM, HG	***	Offers similar characteristics to GH 0851 with improved insect resistance through the Attribute II trait stack. This trait also provides tolerance to Liberty and Touchdown herbicides for added flexibility in weed management programs.		
	04051	<b>Pursuit</b> 	82	Bi-color	8 x 2"	16-18	-	-	-	FM	****	Compare to Remedy. Does not exhibit the tassels and/or glumes under stress conditions that Remedy reveals. Has lighter green husk with a few flags.		
	04043	<b>Remedy</b> 	82	Bi-color	8 ½ x 1.9"	16	R	-	-	FM, HG	***	Remedy is a BC 0805 type with improved insect resistance through the Attribute II trait stack, providing built-in control of key pests. This product is tolerant to glyphosate and glufosinate herbicides approved for application over the top of Attribute® II Sweet Corn.		

**Agreement Needed:** Under certain stress conditions, Remedy sweet corn may exhibit tassels and/or glumes growing out of the ear. An additional agreement needs to be signed for this variety. See page 146.

Attribute II® varieties may be sprayed with conventional corn herbicides or either Liberty (glufosinate) herbicides and glyphosate herbicides. Be sure to read the label and confirm that the chemical you are spraying is 100% glufosinate or 100% glyphosate with no other active ingredients.





MILKY WAY ★



QUICK TRIP NEW



ASPIRE



PURSUIT ★



REMEDY

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ruppseedsinc/](http://www.facebook.com/ruppseedsinc/)



**syngenta®**

**Attribute®**  
Insect protection

**Attribute® Plus**  
Trait stacks

**Attribute® II**  
Insect protection

#### High Quality, Picture Perfect Ears

Attribute®, Attribute Plus and Attribute II trait stacks from Syngenta are a viable crop strategy for sweet corn growers throughout the country. Commercially grown since 1998, Attribute sweet corn seeds provide a high level of above-ground protection against European corn borers and corn earworms throughout the growing season. With Attribute sweet corn, growers have another option for harvesting outstanding yields of high-quality sweet corn that meets market needs. When managed in accordance with the recommendations outlined in the stewardship agreement, Attribute sweet corn can be a valuable addition to your crop management strategy for many years to come.

Attribute Plus sweet corn seeds further extends the high-yielding potential for sweet corn growers with added Vip3A. This additional trait features greater spectrum of insect control providing a high level of above-ground protection against European corn borers and corn earworms. In addition to improved insect control, Attribute Plus also features tolerance to glufosinate herbicide for added field advantage.

#### Documents Required:

145

If you purchase Attribute sweet corn, you are required by the EPA to fill out and sign a Stewardship Agreement for your farm. If you already have an Attribute license, please include your license number on your order form in the space provided.

The introduced Attribute II trait stack continues the Syngenta tradition of providing high performance traits to sweet corn growers, and now it has the added power of Vip3A – a unique mode of action proprietary to Syngenta. The combination of Vip3A with Cry1Ab, the protein found in Attribute sweet corn varieties, offers excellent control of key yield-robbing insects including European corn borer, corn earworm and fall armyworm and Western bean cutworm.

Additional information on the Attribute products can be found at the following link: [www.ruppseeds.com/Attribute](http://www.ruppseeds.com/Attribute)

Attribute® is a registered trademark of a Syngenta Group Company. LibertyLink®, Liberty® and the Water Droplet logo are registered trademarks of Bayer.

The Attribute Grower Stewardship Agreement can be found on page 145. You may also obtain your Attribute license by visiting [www.ruppseeds.com/Agcelerate](http://www.ruppseeds.com/Agcelerate) or call 1-800-768-6387 ext. 3 to register.

CORN ATTRIBUTE® Insect Protection		M=1,000 seeds	
Priced per 1,000 seeds in these package sizes		25M	100M
<b>SH2</b>			
03137 <b>BSS 0977</b> Bi-Color Cruiser		12.38	12.38
<b>Synergistic</b>			
04207 <b>BC 0528</b> Bi-Color Cruiser		12.11	12.11
04019 <b>BC 0805</b> Bi-Color Cruiser		11.66	11.66
04018 <b>WH 0809</b> White Cruiser		11.59	11.59

CORN ATTRIBUTE II® Insect Protection		M=1,000 seeds	
Priced per 1,000 seeds in these package sizes		25M	100M
<b>Synergistic</b>			
04034 <b>Aspire</b> Yellow Cruiser		15.53	15.53
04051 <b>Pursuit</b> Bi-Color Cruiser		15.67	15.67
04055 <b>Quick Trip</b> Bi-Color Cruiser		15.67	15.67
04043 <b>Remedy</b> Bi-Color Cruiser		15.63	15.63

CORN ATTRIBUTE PLUS® Insect Protection		M=1,000 seeds	
Priced per 1,000 seeds in these package sizes		25M	100M
<b>SH2</b>			
03101 <b>BSS 0761</b> Bi-Color Cruiser		14.18	14.18
03108 <b>Patriarch</b> Bi-Color Cruiser		15.84	15.84
<b>Synergistic</b>			
04042 <b>Milky Way</b> White Cruiser		15.53	15.53



Cruiser® seed treatment insecticide guards against a broad spectrum of early season sucking and chewing insect pests in beans and sweet corn. By protecting the crop from the start, growers can improve stand establishment, enhance plant vigor and increase yield potential.

[www.ruppseeds.com/Cruiser](http://www.ruppseeds.com/Cruiser)



Cruiser® treated items are highlighted in purple in the price tables.

Look for this symbol in the product description tables marking Cruiser treated items.

# Sweet Corn Genetic Types

Sweet corn is one of the most popular vegetables grown in the United States. Sweet corn hybrids, like many vegetable varieties, have seen improvements that enhance eating quality in the areas of sugar content, flavor, tenderness and appearance. Commercial growers also experience benefits of these improved hybrids with higher yields, disease resistance, better plant structure, insect and herbicide resistance, etc.

Producing and preserving the eating quality potential of the hybrids is a key factor for the grower's success in his market. Knowing the genetic type of each hybrid is essential as the grower prepares a cropping plan. Each genetic type has some risks of cross pollination with other types, which can negatively impact eating quality in the crop produced. Maintaining an isolation between types or selecting hybrids within compatible genetic type groups will ensure that the eating quality of each hybrid has been preserved.

Our 2021 Vegetable Resource Guide includes nearly 100 sweet corn hybrids in the 6 genetic types shown here. Several of these types are related, so from a variety selection and crop planning perspective, we view them as 3 genetic type groups. Each group has slightly different recommendations for the other types they need to be isolated from. Please see the genetic type groups to the right for more information on the characteristics of each group and its isolation requirements.

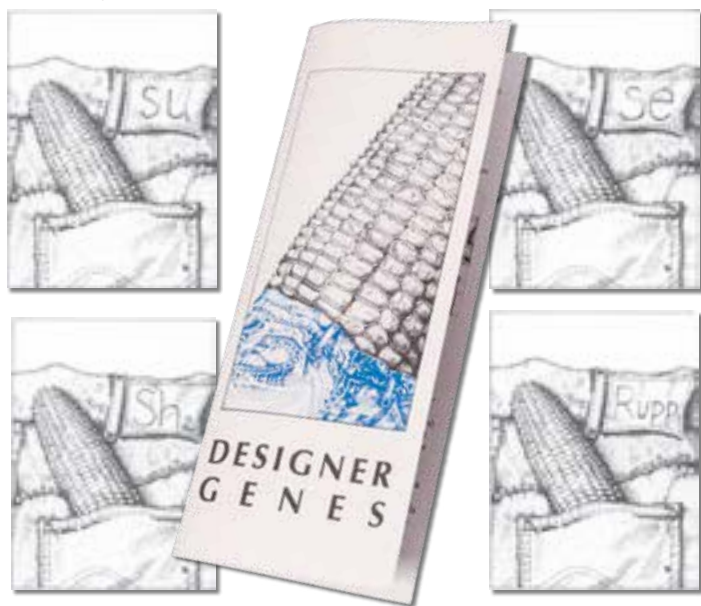
## ISOLATION

For all **high quality** sweet corn varieties, maintaining an isolation is required to protect the high sugar and flavor characteristics of the sweet corn as cross pollination from other types of sweet corn or different types of corn will result in starchy kernels.

SE/Synergistic types and SH2/Improved Super Sweet types should always be isolated both from each other and from other types of corn including field corn, popcorn, and ornamental corn.

An isolation can be achieved either by distance or by a difference in maturity. Preferable isolations would require 700 – 1000 feet distance from other corns, or 10 – 14 days between pollination.

*Helping growers produce the best sweet corn for their markets has been a priority for us since we started in the vegetable business. These graphics are from a "Designer Genes" brochure we published in the early 1980s.*



## SU NORMAL

- Traditional sweet corn genotype (SU gene)
- Exceptional seed vigor and germination
- Strong, old fashion corn flavor
- One day window where sugars are at their peak before converting to starch

*For best flavor, isolate from SH2 and Improved Super Sweet types and dent corn, popcorn, and ornamental corn.*

## SE

- Sugary enhancer (SE) gene
- Sweetness, flavor, and texture are improved over SU types
- Three day window where sugars are at their peak before converting to starch
- Typically used for freezing

## SYNERGISTIC

- Tender kernels with higher sugars than SE
- Long shelf life than SE
- Approximately five days from when sugars are at their peak before converting to starch
- Great for local and roadside markets seeking the balance between that old fashion flavor and the high sugar corns.

*For best flavor, isolate from SU, SH2, and Improved Super Sweet types and also dent corn, popcorn, and ornamental corn.*

## SH2

## SH2 EXTRA SWEET

- Shrunk (SH2) gene raises the sugar levels and field holding ability.
- Increased shelf life improves ease of distribution
- Harder kernel gives a snap bite
- Less damage during harvest
- Ten day window where sugars are at their peak before converting to starch
- Needs warmer soils (65° F or higher) for germination

## IMPROVED SUPER SWEETS

- A perfect blend of tender SE type kernel with the high sugar flavors of SH2
- Ten day window where sugars are at their peak before converting to starch
- Needs warmer soils (65° F or higher) for germination

*For best eating quality, isolate from SU, SE, and Synergistic types as well as dent corn, popcorn, and ornamental corn.*

## EATING QUALITY RATING

Rupp Seeds 5 Star rating system is used to help growers differentiate sweetcorn varieties within each genetic class for eating quality based on sweetness, tenderness and corn flavor. These ratings are an average of our sampling scores that are compiled from multiple locations across various growing regions.



# SWEET CORN INDEX

BI-COLOR	Relative Maturity	Genetic Type	Page #
Vitality	65	Synergistic	37
Catalyst XR	66	Improved Super Sweets	38
Fastlane	67	SE	36
Latte	68	Synergistic	37
Nighthawk	68	Improved Super Sweets	38
Kickoff XR	69	Improved Super Sweets	38
Solstice	70	Improved Super Sweets	38
Tempress	70	Synergistic	37
Hero XR	71	Improved Super Sweets	38
Profit	72	Synergistic	37
Quick Trip	72	Synergistic	32
Signature XR	72	Improved Super Sweets	38
Temptation	72	SE	36
Temptation II	72	SE	30
Xtra Tender 2472 XR	72	Improved Super Sweets	38
Anthem XR	73	Improved Super Sweets	38
Cappuccino	73	Synergistic	37
Xtra Tender 20173	73	Improved Super Sweets	38
Anthem XR II	74	SH2	30
Super Surprise	74	Improved Super Sweets	38
Xtra Tender 274A	74	Improved Super Sweets	38
Xanadu	74 - 75	Improved Super Sweets	39
Allure	75	Synergistic	37
Caliber XR	75	Improved Super Sweets	38
Luscious	75	SE	36
Nectar	75	Synergistic	37
Nirvana	75	Improved Super Sweets	38
American Dream	77	Improved Super Sweets	39
Cumberland	77	Improved Super Sweets	39
Accord	78	SE	36
ACes	78	Improved Super Sweets	40
AP358	78	Improved Super Sweets	40
BSS 0977	78	SH2	32
Cadence XR	78	Improved Super Sweets	40
Crave	78	Improved Super Sweets	40
Essence	78	Synergistic	37
SV9014SB	78	Synergistic	30
Enchanted	79	Improved Super Sweets	40
Montauk	79	Synergistic	37
Patriarch	79	SH2	32
7143 <small>EX08767143</small>	80	SH2	40
BSS 0761	80	SH2	32
Obsession II	80	SH2	30
BC 0528	81	Synergistic	32
Primus	81	Synergistic	37
SV9010SA	81	SH2	30
BC 0805	82	Synergistic	32
Providence	82	Synergistic	37
Pursuit	82	Synergistic	32
Remedy	82	Synergistic	32
Serendipity	82	Synergistic	37
Cameo	84	Synergistic	37
Delectable	84	SE	36

WHITE	Relative Maturity	Genetic Type	Page #
7401 Imp	75	Improved Super Sweets	41
Eden	76	Improved Super Sweets	41
Glacial	76	Improved Super Sweets	41
Mirage	78	Synergistic	41
WH 0809	80	Synergistic	32
Devotion II	82	SH2	30
Milky Way	82	Synergistic	32

YELLOW	Relative Maturity	Genetic Type	Page #
Café	68	Synergistic	42
Takeoff	69	Improved Super Sweets	43
Xtra Tender 1572	72	Improved Super Sweets	43
Inferno	74	Synergistic	42
Bodacious RM	75	SE	42
Gold Nuggets	75	SE	42
Honey Select	79	Synergistic	42
SV1077SD	79	SH2	43
Aspire	80	Synergistic	32
Passion II	81	SH2	30
SV9012SD	83	SH2	30
Incredible R/M	85	SE	42



FASTLANE



TEMPTATION



LUSCIOUS TSW



ACCORD



VITALITY



LATTE



TEMPTRESS



PROFIT



CAPPUCCINO



NECTAR



ALLURE



ESSENCE

CORN		BI-COLOR SE									
		Relative Maturity	Ear Height	Ear Size length x diameter	Kernel Rows	Rust	Stewart's	NLB	Use	Eating Quality	Features
02189	<b>Fastlane</b>	67	14"	7 x 1.7"	14 - 16	M	S	S	FM, HG	**	A first early variety with good cold soil vigor, very attractive ear.
02137	<b>Temptation</b>	72	18"	8 x 1.8"	16	S	S	S	FM	**	A Seminis product for the first early slot. Has excellent cold soil emergence.
02178	<b>Luscious</b>	75	15"	8 x 1.9"	16 - 18	M	M	M	FM, HG	***	A hybrid that produces an attractive blunt ear on an excellent plant package.
02167	<b>Accord</b>	78	16"	8 1/2 x 1.9"	18 - 20	M	M	M	FM, HG	***	A widely adapted hybrid with classy ears. A clean sturdy plant.
02132	<b>Delectable</b>	84	26"	9 x 2.1"	18	M	M	M	FM, HG	****	Bi-color version of Incredible. Large ear, dark green husk.

CORN BI-COLOR SE		M=1,000 seeds				
Priced per pound in these package sizes		1#	5#	25#	50#	100#*
02132	<b>Delectable</b>	15.85	14.60	14.25	13.85	13.55
Priced per 1,000 seeds in these package sizes		2.5M	10M	25M	100M	500M*
02167	<b>Accord</b> Cruiser	8.80	8.15	7.75	7.30	7.20
02189	<b>Fastlane</b> Cruiser	9.50	8.85	8.45	8.00	7.90
02178	<b>Luscious</b> Cruiser	6.65	6.00	5.60	5.15	5.05
02137	<b>Temptation</b> Cruiser	8.90	8.25	7.85	7.40	7.30

\* Multiple packages may be used to fill orders for these quantities.

CORN BI-COLOR Synergistic		M=1,000 seeds				
Priced per 1,000 seeds in these package sizes		2.5M	10M	25M	100M	500M*
04009	<b>Allure</b> Cruiser	10.50	9.80	9.40	8.95	8.85
04029	<b>Cameo</b> Cruiser	9.80	9.10	8.70	8.25	8.15
04044	<b>Cappuccino</b> Cruiser	10.45	9.75	9.35	8.90	8.80
04039	<b>Essence</b> Cruiser	10.60	9.90	9.50	9.05	8.95
04032	<b>Latte</b> Cruiser	10.70	10.00	9.60	9.15	9.05
04021	<b>Montauk</b> Cruiser	11.80	11.10	10.70	10.25	10.15
04052	<b>Nectar</b> Cruiser	11.00	10.30	9.90	9.45	9.35
04210	<b>Primus</b> Cruiser	10.80	10.10	9.70	9.25	9.15
04214	<b>Profit</b> Cruiser	9.45	8.75	8.35	7.90	7.80
04014	<b>Providence</b> Cruiser	8.60	7.90	7.50	7.05	6.95
04013	<b>Serendipity</b> Cruiser	7.90	7.20	6.80	6.35	6.25
04049	<b>Temptress</b> Cruiser	10.25	9.55	9.15	8.70	8.60
04204	<b>Vitality</b> Cruiser	9.30	8.60	8.20	7.75	7.65

\* Multiple packages may be used to fill orders for these quantities.



MONTAUK ★



PRIMUS


















PROVIDENCE ★



SERENDIPITY



CAMEO

CORN		BI-COLOR Synergistic										Pricing on page 36	
		Relative Maturity	Ear Height	Ear Size length x diameter	Kernel Rows	Rust	Stewart's	NLB	Use	Eating Quality	Features		
04204	Vitality 	65	18"	7 x 1.6"	14	S	M	S	FM	****	A Seminis hybrid with excellent plant and ear qualities, plus vigor to be a very good first early variety.		
04032	Latte 	68	20"	7 ½ - 8 x 1.7"	12 - 16	-	-	-	FM	**	First early variety with excellent ear length in this class. Very good eating corn with a dark green husk package.		
 04049	Tempress 	70	16"	7 ¾ x 2"	14 - 16	R	-	M	FM, HG	****	First "Quad Sweet" variety in our sweet corn lineup. Has an attractive ear with an eye-catching husk package. Moderately good cool soil emergence.		
04214	Profit 	72	22"	8 x 1.8"	14	M	M	M	FM, HG	***	Proved itself in recent multiple locations as one of the year's favorites. Very large ears with attractive flags, good husk cover and tip fill. Great eating quality.		
 04044	Cappuccino 	73	17"	7 ½ - 8 x 1.9"	16	M	M	M	FM, HG	***	Superb eating quality. Plant mid to late season or for rain gap filler. Excellent disease package.		
04052	Nectar 	75	18"	8 ¼ x 1.9"	14 - 16	-	-	MR	FM, HG	*****	Very good eating quality. Excellent ear size for roadside markets. High quality package includes dark husk color and flags. Stalk has solid standability.		
 04009	Allure 	75	25"	8 x 1.8"	16	R	R	R	FM, HG	****	A Seneca Vegetable Research hybrid with good early vigor. Nice husk package with great eating quality and flavor.		
04039	Essence 	78	18"	8 x 1.8"	16 - 18	M	M	M	FM	****	Excellent eating quality. High row count for a refined kernel. Compare to Providence with a few days earlier maturity.		
 04021	Montauk 	79	18"	8 x 1.8"	16 - 20	S	M	M	FM	****	A widely adapted hybrid with good vigor, high yields and excellent flavor.		
04210	Primus 	81	18"	8 x 2"	14 - 16	M	M	S	FM	*****	A proven TripleSweet PLUS variety from Syngenta with approximately 15% higher sugar than Providence. Performs well under plastic and in late plantings.		
 04014	Providence	82	18"	8 ½ x 1.9"	16 - 18	R	S	S	FM	****	A rust resistant version of Serendipity with excellent eating quality.		
04013	Serendipity	82	18"	8 x 1.9"	16 - 18	S	S	S	FM, HG	****	A variety with an added supersweet kick for extended shelf life and higher eating quality.		
04029	Cameo	84	18"	9 x 2.1"	18	M	M	M	FM	***	A synergistic version of Delectable with a tremendous boost in eating quality.		

#### EATING QUALITY RATING

Rupp Seeds 5 Star rating system is used to help growers differentiate sweetcorn varieties within each genetic class for eating quality based on sweetness, tenderness and corn flavor. These ratings are an average of our sampling scores that are compiled from multiple locations across various growing regions.





CATALYST XR



NIGHTHAWK NEW



KICKOFF XR ★






SOLSTICE



HERO XR



SIGNATURE XR

CORN		BI-COLOR SH2 Extra Sweet & Improved Super Sweets										Pricing on page 39	
		Relative Maturity	Ear Height	Ear Size length x diameter	Kernel Rows	Rust	Stewart's	NLB	Use	Eating Quality	Features		
03117	Catalyst XR 	66	27"	7.5-8.25 x 1.6-1.8"	16-18	R	-	-	FM, S	**	Catalyst XR is the earliest supersweet on the market. Has admirable ear size, strong tip fill, as well as outstanding kernel color and sweetness. Perfect for early fresh market and shipping.		
 03221	Nighthawk 	68	22"	7.1 x 1.9"	16-18	-	-	M	FM	***	An early maturing hybrid with excellent eating quality, good tip fill and husk cover on a nice sized ear. Well adapted for local and roadside early markets in the Midwest and Northeast.		
 03038	Kickoff XR 	69	28"	8 ¼ x 1.9"	16-18	M	-	-	FM, S	****	Impeccable eating quality for early in the season. Very good white to yellow kernel contrast. Strong tip fill.		
03109	Solstice 	70	20"	7.5 x 1.8"	16	-	-	M	FM	*****	Solstice is an early 70 day maturity. Has strong emergence, good ear size, a strong husk covered tip and exceptional tip fill. A quick snap for ease in picking and a short shank for packaging.		
03037	Hero XR 	71	23"	7 ¾ x 1.8"	14-16	R	-	MS	S	**	Excellent early variety with great husk protection. Kernels fill beautifully to form a very attractive ear early in the season.		
03215	Signature XR 	72	27"	7.5-8.25 x 1.85-1.95"	16-18	R	-	-	FM	*****	Signature XR has phenomenal IFSI Reserve eating quality. An attractive husk, excellent holding ability in the field, strong husk cover and great ear size make Signature XR the choice for quality driven fresh markets.		
03013	Xtra Tender 2472 XR 	72	24"	8 ½ x 1.6"	14 - 16	R	S	S	FM, S	****	Rust resistant version of Xtra Tender 2170.		
 03003	Anthem XR 	73	24"	8 x 1.8"	16 - 20	R	M	M	FM, S	****	Excellent yield potential and better than average lodging tolerance. Superb eating quality. Great all season long.		
03173	Xtra Tender 20173 	73	24"	7 ½ x 2"	16	R	M	-	FM	*****	Rust resistant version of Xtra Tender 2573.		
03035	Super Surprise 	74	22"	7 ¾ - 8 ½ x 1.8"	16 - 20	M	R	M	FM, S	***	Excellent late season compliment to 274A. Whereas 274A can be planted in the 1st and 2nd early slots, Super Surprise can be planted later in the year for better rust tolerance and tolerance to tip blanking. Slightly smaller ear than 274A and can be used for roadside markets or shipping.		
 03174	Xtra Tender 274A 	74	23"	8 x 2"	18 - 20	S	M	S	FM, HG	****	An IFSI bi-color hybrid with excellent cold soil vigor and fantastic eating quality. Has medium long husk protection.		
03091	Caliber XR 	75	21"	8 ¼ x 1.8"	16-18	M	-	-	FM	***	Superb eating quality with refined kernels for excellent texture. Plants are healthy and very clean for easier picking.		
 03025	Nirvana 	75	24"	8 x 1.8"	16	M	-	R	FM, HG	*****	Combination of great vigor and emergence along with fantastic flavor and texture.		



XTRA TENDER  
2472 XR



ANTHEM XR ★



XTRA TENDER  
20173



SUPER SURPRISE



XTRA TENDER ★  
274A



CALIBER XR



### UNIQUE TASTE & TEXTURE

From the Nirvana series of sweet corn from Crookham.



NIRVANA ★






XANADU NEW



EDEN ★

**CORN**
**BI-COLOR SH2 Extra Sweet & Improved Super Sweets**
Pricing on page 39

			Relative Maturity	Ear Height	Ear Size length x diameter	Kernel Rows	Rust	Stewart's	NLB	Use	Eating Quality	Features
<span style="background-color: red; color: white; padding: 2px;">NEW</span> 03119	<b>Xanadu</b> 		74 - 75	25"	8 x 1.75-2"	16 - 18	-	-	R	FM, HG	*****	<i>Xanadu, being part of the Nirvana series, incorporates a stronger plant, higher ear placement and improved disease resistance while maintaining exceptional eating quality and consumer appeal.</i>
03058	<b>American Dream</b> 		77	26"	7 1/4 x 1.9"	16-18	-	-	M	FM, HG	****	<i>Trim ear with extraordinary tip fill. Eats exceptionally well. Beautiful flag leaves for improved marketability. An AAS winner.</i>
03102	<b>Cumberland</b> 		77	30"	8 x 1.9"	16-18	R	-	-	FM, S	***	<i>Prolific Harris Moran variety with attractive ear and husk package. Sweet flavor and fantastic texture. Ideally grown for retail stands and farm markets.</i>

Additional Bi-Color Improved Super Sweet corn can be found on the next page --->.

CORN BI-COLOR SH2 Extra Sweet & Improved Super Sweets						
			Priced per 1,000 seeds in these package sizes			
			2.5M	10M	25M	100M 500M*
03199	<b>7143</b>	EX 08767143 Cruiser	11.10	10.40	10.00	9.55 9.45
03022	<b>7902R</b>	Cruiser	8.25	7.55	7.15	6.70 6.60
03023	<b>ACes</b>	2060 Cruiser	8.30	7.60	7.20	6.75 6.65
03058	<b>American Dream</b>	Cruiser	11.80	11.10	10.70	10.25 10.15
03003	<b>Anthem XR</b>	Cruiser	11.55	10.85	10.45	10.00 9.90
03007	<b>AP358</b>	Cruiser	12.15	11.45	11.05	10.60 10.50
03218	<b>Cadence XR</b>	Cruiser	11.40	10.70	10.30	9.85 9.75
03091	<b>Caliber XR</b>	Cruiser	11.20	10.50	10.10	9.65 9.55
03117	<b>Catalyst XR</b>	Cruiser	12.00	11.30	10.90	10.45 10.35
03216	<b>Crave</b>	Cruiser	9.15	8.45	8.05	7.60 7.50
03102	<b>Cumberland</b>	Cruiser	11.00	10.30	9.90	9.45 9.35
03039	<b>Enchanted</b>	Cruiser	10.45	9.75	9.35	8.90 8.80
03037	<b>Hero XR</b>	Cruiser	11.35	10.65	10.25	9.80 9.70
03103	<b>Honey &amp; Pearl</b>		8.50	7.80	7.40	6.95 6.85
03033	<b>Honor XR</b>	Cruiser	10.15	9.45	9.05	8.60 8.50

CORN BI-COLOR SH2 Extra Sweet & Improved Super Sweets						
			Priced per 1,000 seeds in these package sizes			
			2.5M	10M	25M	100M 500M*
03038	<b>Kickoff XR</b>	Cruiser	11.95	11.25	10.85	10.40 10.30
03221	<b>Nighthawk</b>	Cruiser	11.30	10.60	10.20	9.75 9.65
03025	<b>Nirvana</b>	Cruiser	11.95	11.25	10.85	10.40 10.30
03215	<b>Signature XR</b>	Cruiser	11.95	11.25	10.85	10.40 10.30
03109	<b>Solstice</b>	Cruiser	11.50	10.80	10.40	9.95 9.85
03035	<b>Super Surprise</b>	Cruiser	11.35	10.65	10.25	9.80 9.70
03119	<b>Xanadu</b>	Cruiser	12.05	11.35	10.95	10.50 10.40
03174	<b>Xtra Tender 274A</b>	Cruiser	11.35	10.65	10.25	9.80 9.70
03189	<b>Xtra Tender 2171</b>	Cruiser	10.95	10.25	9.85	9.40 9.30
03013	<b>Xtra Tender 2472 XR</b>	Cruiser	10.80	10.10	9.70	9.25 9.15
03019	<b>Xtra Tender 2475</b>	Cruiser	11.40	10.70	10.30	9.85 9.75
03173	<b>Xtra Tender 20173</b>	Cruiser	11.75	11.05	10.65	10.20 10.10

\* Multiple packages may be used to fill orders for these quantities.



AMERICAN DREAM



CUMBERLAND



ACES



AP358



CADENCE XR **NEW**



CRAVE **NEW**

## CORN

## BI-COLOR SH2 Extra Sweet & Improved Super Sweets

Pricing on page 39

		Relative Maturity	Ear Height	Ear Size length x diameter	Kernel Rows	Rust	Stewart's	NLB	Use	Eating Quality	Features
03023	ACes	78	28"	8 x 1.9"	16 - 18	R	R	MS	FM	****	No fear of getting lost in the shuffle, this variety has been smoking good in trials the past couple of years. High marks across the board. A game changer.
03007	AP358	78	20"	8 x 1.9"	16-18	M	M	M	FM	****	Crookham variety that sets a new standard for eating quality in the improved SH2 category. The AP in the name refers to Augmented PLUS. With easy snap, good tip fill and attractive husk package.
<b>NEW</b> 03218	Cadence XR	78	25"	7.5-8.25 x 1.9-2.1"	16 - 20	R	-	MS	FM, S	****	Cadence XR is a full season high eating quality hybrid with ideal ear size for roadside markets. Cadence XR has an attractive husk package with good flag leaves and resistance to common rust.
<b>NEW</b> 03216	Crave	78	20"	8 x 1.8"	16-18	-	-	-	FM, S	****	A Glacial bi-color type with a great husk package, large ear and excellent eating quality that customers will crave. Vibrant bi-color kernels, great husk length, color and flags. Medium tall plant.
★ 03039	Enchanted	79	28"	8 x 2"	18 - 20	M	M	M	FM, S	****	Offers all the flavor and texture you would expect from an augmented farm market hybrid. Plump, sweet kernels.
03199	7143 EX08767143	80	26"	8 x 1.9"	18 - 20	R	M	M	S	***	An improved version of Obsession that has a better rust package, eye appeal and eating quality.



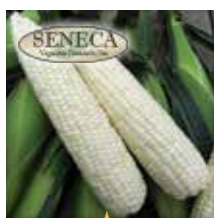




ENCHANTED ★



7143 EX08767143



MIRAGE ★




7401 IMP ★






EDEN ★



GLACIAL ★

CORN		WHITE Synergistic									
		Relative Maturity	Ear Height	Ear Size length x diameter	Kernel Rows	Rust	Stewart's	NLB	Use	Eating Quality	Features
★	04016 <b>Mirage</b> 	78	18"	8 x 1.8"	16 - 18	M	M	M	FM	****	Excellent eating quality. High row count for a refined kernel. High yield potential. White version of Essence.

CORN		WHITE SH2 Extra Sweet & Improved Super Sweets									
		Relative Maturity	Ear Height	Ear Size length x diameter	Kernel Rows	Rust	Stewart's	NLB	Use	Eating Quality	Features
★	03049 <b>7401 Imp</b> 	75	28"	8 x 1.8"	16 - 18	M	R	M	FM, HG	****	Bright kernel color. Good husk package. Fantastic flavor.
★	03036 <b>Eden</b> 	76	27"	7 1/2 - 8 x 1.8"	16 - 18	R	-	M	FM, HG	*****	Combines the exceptional quality of taste and texture of the augmented varieties with emergence and vigor. This high yielding and uniform sweet corn has great tip fill and beautiful white kernels with even rowing. It is also easy to pick, packs well and has holding power from field to consumer. In trial after trial, it has proven itself to be exceptional on every level.
★	03100 <b>Glacial</b> 	76	26"	8 x 1.9"	16 - 18	-	-	-	FM, P	*****	Has incredible white kernels that actually stay white! Very good tip fill and eating quality. Fine addition to a white corn planting program.

CORN WHITE Synergistic		M=1,000 seeds				
		Priced per 1,000 seeds in these package sizes				
		2.5M	10M	25M	100M	500M*
04016	<b>Mirage</b> <small>Cruiser</small>	9.95	9.25	8.85	8.40	8.30

\* Multiple packages may be used to fill orders for these quantities.

CORN WHITE SH2 Extra Sweet & Improved Super Sweets		M=1,000 seeds				
		Priced per 1,000 seeds in these package sizes				
		2.5M	10M	25M	100M	500M*
03049	<b>7401 Imp</b> <small>Cruiser</small>	10.45	9.75	9.35	8.90	8.80
03036	<b>Eden</b> <small>Cruiser</small>	11.75	11.05	10.65	10.20	10.10
03100	<b>Glacial</b> <small>Cruiser</small>	10.40	9.70	9.30	8.85	8.75
03222	<b>Xtra Tender 372A</b> <small>Cruiser</small>	11.25	10.55	10.15	9.70	9.60

\* Multiple packages may be used to fill orders for these quantities.

#### EATING QUALITY RATING

Rupp Seeds 5 Star rating system is used to help growers differentiate sweetcorn varieties within each genetic class for eating quality based on sweetness, tenderness and corn flavor. These ratings are an average of our sampling scores that are compiled from multiple locations across various growing regions.



BODACIOUS RM



GOLD NUGGETS



INCREDIBLE R/M




CAFÉ






INFERNO



HONEY SELECT ★

CORN		YELLOW SE										
		Relative Maturity	Ear Height	Ear Size length x diameter	Kernel Rows	Rust	Stewart's	NLB	Use	Eating Quality	Features	
02055	<b>Bodacious RM</b>	75	20"	8 x 1.8"	18	R	M	M	FM, HG	***	A rust resistant Bodacious, same flavor, superior plant and yield. Give this a try.	
02007	<b>Gold Nuggets</b> 	75	24"	8 x 2"	20	M	M	M	FM, HG	****	The best eating SE, large eared, superior holding. Good for freezer corn.	
02056	<b>Incredible R/M</b>	85	30"	9 x 2"	18	R	M	M	FM, HG	***	Rust resistant and MDM resistant Incredible.	

CORN		YELLOW Synergistic										
		Relative Maturity	Ear Height	Ear Size length x diameter	Kernel Rows	Use	Eating Quality	Features				
04045	<b>Café</b> 	68	15"	7 1/2 - 8 x 1.7"	14	FM, HG	***	Yellow version of Latte.				
04008	<b>Inferno</b> 	74	18"	8 1/4 x 1.8"	14 - 16	FM, HG	***	Has excellent husk cover with a dark green plant and flag leaves, creamy flavor with the right balance of texture.				
★ 04012	<b>Honey Select</b> 	79	18"	8 1/2 x 2"	18 - 20	FM, HG	***	A Syngenta AAS winner with similar genetic type to Serendipity only yellow kernels. Easy to grow, good vigor, and high sugars.				

CORN YELLOW SE						
Priced per pound in these package sizes						
	1#	5#	25#	50#	100#*	
02055 <b>Bodacious RM</b>	15.30	14.05	13.70	13.30	13.00	
02007 <b>Gold Nuggets</b>	15.45	14.20	13.85	13.45	13.15	
02056 <b>Incredible R/M</b>	15.20	13.95	13.60	13.20	12.90	

\* Multiple packages may be used to fill orders for these quantities.

CORN YELLOW Synergistic							M=1,000 seeds
Priced per 1,000 seeds in these package sizes							
	2.5M	10M	25M	100M	500M*		
04045 <b>Café</b> <small>Cruiser</small>	10.50	9.80	9.40	8.95	8.85		
04012 <b>Honey Select</b> <small>Cruiser</small>	7.10	6.40	6.00	5.55	5.45		
04008 <b>Inferno</b> <small>Cruiser</small>	9.40	8.70	8.30	7.85	7.75		

\* Multiple packages may be used to fill orders for these quantities.



TAKEOFF★



XTRA TENDER  
1572





SV1077SD



#### SAVE WITH CASH DISCOUNTS

Cash discounts are available throughout the season and are a great way to add money to your bottom line.  
See page 6 for all of the details.

December.....	6%
January.....	5%
February.....	4%
March.....	3%
April.....	2%

CORN			YELLOW SH2 Extra Sweet & Improved Super Sweets									
			▲ Relative Maturity	Ear Height	Ear Size length x diameter	Kernel Rows	Rust	Stewart's	NLB	Use	Eating Quality	Features
★	03120	Takeoff 	69	28"	7½ - 8½"	16 - 18	-	-	MS	FM, S	****	Incredible eating quality with excellent husk package. Impressive ear shape and size for early maturity. Strong seedling vigor. Yellow version of Kickoff.
	03031	Xtra Tender 1572 	72	20"	7½ - 8 x 1.9"	16 - 18	M	-	MS	FM, S	***	Very good eating quality with dark green husk package and excellent flags. Overall high quality hybrid for roadside or shipping. Yellow version of Anthem.
	03011	SV1077SD 	79	24"	8 x 1.9"	16 - 18	R	M	M	FM, S	***	A high quality yellow sweet corn hybrid for the fresh market. It offers great yield potential and flavor.

CORN YELLOW SH2 Extra Sweet & Improved Super Sweets						
		Priced per 1,000 seeds in these package sizes				
		2.5M	10M	25M	100M	500M*
03092	<b>4974 VX</b> Cruiser	10.60	9.90	9.50	9.05	8.95
03217	<b>Bullet XR</b> Cruiser	11.20	10.50	10.10	9.65	9.55
03220	<b>Sprinter XR</b> Cruiser	9.90	9.20	8.80	8.35	8.25
03011	<b>SV1077SD</b> Cruiser	10.55	9.85	9.45	9.00	8.90
03120	<b>Takeoff</b> Cruiser	11.65	10.95	10.55	10.10	10.00
03063	<b>Vista XR</b> Cruiser	11.20	10.50	10.10	9.65	9.55
03031	<b>Xtra Tender 1572</b> Cruiser	11.95	11.25	10.85	10.40	10.30

\* Multiple packages may be used to fill orders for these quantities.

CONTENTS SETTLE SHAKE CONTAINER WELL BEFORE MEASURING

**SabrEx**  
ROOT INOCULANT  
for CORN

**Application rate:** SabrEx for corn can be used for field corn, popcorn, sweet corn and sunflowers at a rate of 0.5 oz. per 50 lb. of seed.

**Directions for use:** Apply as a dry seed treatment prior to planting. Mix until uniform coverage is obtained.

**Compatibility:** SabrEx is compatible with many common fungicides and insecticides. For current compatibilities, contact your ABM representative or call 877-617-2461.

**Product specifications:** Contains proprietary and crop-specific combination of patent-pending strains of Trichoderma microorganism spores formulated with an 80/20 talc/graphite carrier.

**Minimum specifications:** 7x10<sup>7</sup> cfu/gm.

CONTAINS LIVING ORGANISMS. STORE IN A COOL DRY PLACE OUT OF SUNLIGHT.  
**Made in the USA**

**Net Contents: 1 oz.**

ABM ADVANCED BIOLOGICAL MARKETING | P.O. Box 222 | Van Wert, OH 45891 | USA | 877.617.2461 | ABM1st.com



## MANAGING INSECTS IN SWEET CORN

Everyone enjoys insect free corn. Corn earworm is potentially the greatest threat to sweet corn production for our customers. 2020 once again proved challenging with high insect counts. We also heard from growers that pyrethroid insecticides such as Warrior and Mustang Max didn't provide the control they needed with corn earworm this past season, while Coragen, Lannate, and/or Radiant seemed to provide better control.

We have put together several "Insect Scouting Resources" on page 44 to help monitor and combat this profit robbing insect. As well as other Lepidoptera that can cause severe damage to sweet corn such as: European corn borer, fall army worm and Western bean cut worm.

### MONITORING EUROPEAN CORN BORER AND CORN EARWORM

One of the keys to successfully managing European corn borers and corn earworms on sweet corn is to determine when the insects are active. European corn borers can be monitored effectively with blacklight traps and field observations, and corn earworms can be monitored with pheromone traps. When moths are being caught in the traps, it means they are laying eggs.

Corn borer eggs are laid on leaves, usually on the undersides, in the region of the ear. Larvae feed on the leaves and later may migrate to the ears (if present).

Corn earworm moths lay their eggs directly on green silks. The larvae that hatch from those eggs will follow the silks down into the tips of the ears.

Because these two insects' egg laying behavior differ, control strategies also differ. Corn borers can be controlled by spraying during the late whorl, tasselling, and silking stages. The migrating larvae should contact a lethal dose of insecticide while moving to the ear zone. Corn earworms must be controlled by directing sprays at the silks so larvae will immediately contact the insecticide after hatching.

For corn borers, treat during the late whorl stage if 20 percent or more of the plants show larval feeding. The presence of large numbers of moths in light traps also justifies treatment. One

application during the late whorl stage, followed by additional treatments every five days up until seven days of harvest, usually provides adequate control.

For corn earworms, treatment is justified if fresh green silks are present and moths are being caught in pheromone traps. In general, the higher the moth catches, the shorter the interval between sprays. If fewer than five moths are being caught per night, a five-day spray interval should be adequate. As moth catches approach 50 to 100 per night, a two- to three-day spray interval would be more appropriate. Determining the spray interval exactly depends on many factors, including how much damage you can tolerate, the crop's value, and the cost and effectiveness of the insecticide. Stop treating for corn earworms when 90 percent of the silks are brown.

Obviously, growers should not treat separately for these two pests. Some of the insecticides recommended here are effective against both species. Choose insecticides that are more effective against the particular pest that is most prevalent at the time of application. If both pests are present, choose an insecticide that will adequately control both.

### INSECT PROTECTED VARIETIES

Insect protected sweet corn varieties such as Syngenta's Attribute, Attribute Plus, and Attribute II Insect Protected corn and the Performance Series from Seminis should be considered as they will allow the grower to decrease the number of sprays that need to be applied. While these products have a built in resistance to some insects, they do not eliminate the need for insect scouting and occasional spraying. Using these varieties in combination with a reduced spray program will lead to great results. The extra investment in seed cost pays off in reduced spray and fuel costs as well as less time in the fields, making insect protected varieties an interesting alternative.

Wire traps and lures are available from several sources. A quick search on-line will guide you to many retailers including Gempler's.

### INSECT SCOUTING RESOURCES

[www.ruppseeds.com/InsectForecast](http://www.ruppseeds.com/InsectForecast)

Learn more about current corn insect pressure.



[www.ruppseeds.com/PestWatch](http://www.ruppseeds.com/PestWatch)

Pest Watch is a great resource to track insect movements nationwide. They also have a complete library of fact sheets about all of the different pest found in vegetable production.



[www.ruppseeds.com/NYSweetCorn](http://www.ruppseeds.com/NYSweetCorn)

This is a link to the NY Sweet Corn Trap Network Report. It also contains a mountain of information on best management practices for sweet corn growers. They also have several fact sheets on individual pest as well as videos on how to set up and maintain your own Trap and Monitoring system.



### SWEET CORN PRODUCTION RESOURCES

[www.ruppseeds.com/SCPestID](http://www.ruppseeds.com/SCPestID)

This is a resource from the Great Lakes Vegetable Working Group in addition to some of the leading researchers in the vegetable industry. It helps identify profit taking weeds and insects, and discusses best management practices for sweet corn.



[www.ruppseeds.com/UMassSC](http://www.ruppseeds.com/UMassSC)

This page from the University of Massachusetts offers information about multiple sweet corn pests and diseases.



[www.ruppseeds.com/uoiScout](http://www.ruppseeds.com/uoiScout)

Developed by Rick Weinzierl this link goes into discussing the difference between traps and economics of scouting.



For details and pricing on SabrEx inoculant, see page 125.

## CORN

## ORNAMENTAL POPCORN

	▲	Days	Features
06006	<b>Little Indian</b>	100	A popular variety with 4 - 5" multi-colored ears. Also very tender eating.
06005	<b>Strawberry</b>	100	A popular variety with strawberry shaped ears for either decoration or popping.

## CORN ORNAMENTAL POPCORN

	Priced per package 4 oz.				
	Priced per pound in these package sizes	1#	5#	25#	50#
06006 <b>Little Indian</b>	7.35	20.10	13.40	13.15	12.90
06005 <b>Strawberry</b>	5.75	15.75	10.50	10.25	10.00

## 2020 SWEET CORN TRIAL REPORT

Our 2020 cold soil trial consisted of 55 different varieties planted April 23. Just like everything in 2020, it started off great until May 12 and 13 when we experienced two nights that dipped below freezing. Even in this challenging environment, each of the following varieties had a stand that was better than average and we were able to gather valuable information from our plot.

In the Sh2 category, a few to highlight would be **Catalyst** (page 38), **Nighthawk** (38), **Kickoff** (38), **Anthem XR II** (30), and **Xtra Tender 274A** (38). Catalyst was new this past spring and would make a good first planting in bare soil. Nighthawk is a hybrid that would be interesting for growers to try to see how it performs in their region. The rest are good, proven varieties that have consistently performed over the years.

In the Sy/Se cold plot, a few that rose to the top were: **Latte** (37), **Quick Trip** (32), and **Temptress** (37). Latte and Temptress have been very consistent over the years and have gained confidence with a broad spectrum of customers. If you need a Bt and herbicide tolerant corn, Quick Trip will be one you will want to look at.

In our main season sweet corn trials, we looked at 137 different hybrids. In the Sy/Se segment a few separated themselves from the rest of the pack. Again, Temptress was an overall good corn with a good balance of plant structure and eating quality. Then came **Allure** (37), a very consistent main season corn that has exceptional eating quality. **Essence** (37) is a proven product with a nice, smooth, creamy flavor that will be a hit if you are growing Sy/Se's. **SV9014** (30) has risen to the top if you are needing the Roundup Ready® technology. It has a nice balance of plant integrity and eating quality. For the grower that is looking for a yellow Sy/Se's, **Inferno** (42) has consistently topped our trials for the last few years.

In the Sh2 trial we had some impressive competition between varieties and it's clear that the bar keeps moving up in this segment. **Solstice** (38) is a newer Crookham variety. We've seen this variety several times and we have gained more and more confidence in it. With its outstanding flavor and eating quality, it's one that you will want to put into your planting schedule. **Signature** (38), a newer variety from IFSI, expresses over all good ear placement, has a nice-looking husk package, and exceptional eating quality. **Nirvana** (38), a great eating corn, has been a very reliable corn for many growers across a wide growing region. **Xanadu** (39) is new for 2021, and will help separate your market from all the rest. Its good disease package makes it a great choice for a main or late season planting. **AP358** (40) consistently performs, keeping a spot in a grower's lineup. It might have more of a snap when you bite into it, but it will have a nice sweet flavor. **Crave** (40) is a 78-day bicolor that would be one to try if you are looking to transition from the Sy/Se market to the Sh2 type corns. It has a nice balance of texture, sugar, and a creamy flavor. The last bicolor to highlight would be **Cadence XR** (40), trialed under 2578XR. This product would be good to trial with your late maturity corns.

If you have a need for a white corn, **Eden** (41), and **Glacial** (41) are great choices. These three have consistently proven their place in our catalog and on growers' farms.

We also trialed several promising experimental varieties, and we are excited about what we will be able to offer you in the future.



R98114W pg. 47

# POPCORN

## EATING QUALITY

No popcorn varieties are hullless. Eating quality is a measurement of flavor, kernel tenderness and hulls that are thin and break and disperse during popping. Thicker hulled hybrids retain the hull in the popped product and tend to remain in your teeth after eating. Factors influencing popcorn quality include kernel moisture and expansion ratio, processing procedures, home storage and handling. Good popcorn should provide at least 98% popped kernels with well under 2% unpopped kernels. Proper care at the processing level helps to assure this.

## EATING QUALITY RATING

Good to Poor

## EXPANSION

Refers to the increase in volume of unpopped corn after it is popped. To illustrate, if a given volume of unpopped corn expanded to a 40 rating when popped, the volume increase was 40 times. All data is collected on the standard test popper.

## LODGING

The percentage of stalks broken below the ear at harvest time.

## MUSHROOM SHAPE

The popped shape that is the most desirable for manufacturing caramel corn etc. due to tougher more durable shape after popping. Always less desirable as eating corn.

## YIELD

Pounds of shelled corn adjusted to 13.5% moisture.

## STORAGE

To maintain the best quality popcorn, store at 13 - 14.5% moisture content.





AMERICAN WAY



EARTH TONES



FIESTA



INDIAN ART  
RED FIRE

CORN		POPCORN							
		Color	Days	Lodging	Yield per Acre	Expansion	Eating Quality	Mushroom	Features
<i>Commercial Varieties</i>									
06039	<b>R98114W</b> <sup>F1</sup>	White	105	2%	5000 lbs. +	45	Good	0	An excellent eating-quality white popcorn that yields as well as many yellow hybrids. Strong stalks and roots help resist lodging. It provides high resistance to common rust and intermediate resistance to Goss' Wilt.
06040	<b>R997</b> <sup>F1</sup>	Yellow	105	2%	5000 lbs. +	46	Good	0	A mid-season butterfly popcorn It has long cylinder-shaped ears with easy shelling large, orange kernels and improved stalk strength. It provides high resistance to Grey Leaf Spot and intermediate resistance to Common Rust, Northern Corn Leaf Blight, and Drought.
06027	<b>Ruby Red</b> <sup>F1</sup>	Red	100	5%		38	Good	0	A true breeding, glossy burgundy red hybrid with no white kernels. Has stalk strength, yield and expansion equal to the best white hybrids. One of the best eating popcorns.
06026	<b>Shaman's Blue</b> <sup>F1</sup>	Dark Blue	105	5%		43	Good	0	Dark blue popcorn hybrid. Has glossy dark blue kernels, large 8" ears, high expanding, tender flakes. Good stalk strength.
Ornamental Popcorn varieties can be found on page 45.									

CORN		ORNAMENTAL CORN	
		Days	Features
05535	<b>American Way</b>	115	A very large eared 10 - 13" variety that has become popular with fresh market growers.
05536	<b>Earth Tones</b>	105	Has marvelous shades of blue and green as well as traditional reds and oranges. Can be ground into cornmeal.
05507	<b>Fiesta</b>	100	A variety developed by the University of New Hampshire. Early maturing with 8" ears and kernels that are variegated and of many colors.
05101	<b>Indian Art Red Fire</b> <sup>F1</sup>	105	Newest release in the "Indian Art" series. Comprehensive hybrid red stalk and red husk package. Kernels are deeper red when compared to Bloody Butcher. 8 - 10" ear.
GCE1010	<b>Maze Corn Rupp XR E10-10</b> <sup>F1</sup>	110	Rupp XR E10-10 is a medium-tall hybrid from Rupp Seeds Grain and Forage Division with solid stalks that performs very well for farmers. An excellent choice for a long standing maze, 8 to 10 feet plant height. Can be harvested for grain once the maze is used.
VSHOCK	<b>Rupp Shock Corn</b> <sup>F1</sup>	103	We list this corn in our vegetable catalog for those that sell corn shocks for ornamental purposes. This hybrid is a tall plant and its plant health and standability are the best we have ever seen in any early mid-season hybrid. Has loads of eye appeal both in the field or shock. Medium maturity.

CORN POPCORN		M=1,000 seeds			
Priced per 1,000 seeds in these package sizes		2.5M	10M	25M	100M
<i>Commercial Varieties</i>					
06039	<b>R98114W</b> <sup>White</sup>	4.25	3.75	3.50	3.25
06040	<b>R997</b> <sup>Yellow</sup>	4.05	3.55	3.30	3.05
06027	<b>Ruby Red</b>	7.85	7.35	7.10	6.85
06026	<b>Shaman's Blue</b>	8.35	7.85	7.60	7.35

\* Multiple packages may be used to fill orders for these quantities.

CORN ORNAMENTAL CORN		M=1,000 seeds				
Priced per package 4 oz.						
Priced per pound in these package sizes		1#	5#	25#	50#*	
05535	<b>American Way</b>	5.75	22.45	14.95	14.70	14.45
05536U	<b>Earth Tones</b> <sup>Untreated</sup>	6.65	25.95	17.30	17.05	16.80
05507	<b>Fiesta</b>	4.05	15.85	10.55	10.30	10.05
05101	<b>Indian Art Red Fire</b>	7.25	28.35	18.90	18.65	18.40
Priced per package						
GCE1010	<b>Maze Corn Rupp XR E10-10</b>					221.15
VSHOCK	<b>Rupp Shock Corn</b>	56.35	113.65	310.40		

Maze and Shock corn prices include shipping.

\* Multiple packages may be used to fill orders for these quantities.



BRISTOL ★ pg. 50

# CUCUMBERS

## PLANTING

Direct seed ½" - 1" soils with 60°F+ temperatures. Row spacing should range from 30" - 36" apart. Space plants 12" apart in the row.

See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## MANAGEMENT

Scout fields weekly to make sure weed, insect, and disease pressure are kept in check.

## HARVEST

Harvest every other day. Slicing cucumbers should be picked when diameter is approximately 2". Cucumbers should be approximately 7 - 8" long and have a smooth surface. Pickling cucumbers should be 3" long by 1" wide when ready to pick.

## STORAGE

Store at 50 - 55° F and 90 - 95% humidity to ensure long shelf life.

## DISEASE CODES

A - Anthracnose  
ALS - Angular Leaf Spot  
Cca - Corynespora Cassicola  
Ccu - Cladosporium Cucumerium  
CMV - Cucumber Mosaic Virus  
CVYV - Cucumber Vein Yellowing Virus  
DM - Downy Mildew  
PM - Powdery Mildew  
PRSV - Papaya Ringspot Virus  
S - Cucumber Scab  
TLS - Target Leaf Spot  
WMV - Watermelon Mosaic Virus  
ZYMV - Zucchini Yellow Mosaic Virus

## COLOR CODES

DG - Dark Green  
G - Green  
MG - Medium Green  
MDG - Medium Dark Green  
VDG - Very Dark Green  
W - White

## HABIT TERMS

GY - Gynoecious  
Refers to all female sex expression when grown under ideal environmental conditions. Various stresses can cause more male flowers.

MO - Monoecious  
Refers to sex expression; having both male and female flowers on the same plant.

P - Parthenocarpic  
Refers to the tendency of a plant to set fruit without pollination.

PF - Predominately Female  
Refers to the blossoms produced by the plant as predominately female.



CORINTO



CITADEL



EUREKA ★



SUPREMO

**Natural**

Enhance root growth and increase seedling vigor for healthier plants and higher yields with Natural™ for Vegetables.

See page 125 for rates and pricing.

CUCUMBERS		PROTECTED CULTURE Parthenocarpic				
▲		Season	Plant	Length	Color	Disease
23576	<b>Corinto</b> <sup>F1</sup>	Spring /Autumn	Vigorous	8 - 10"	DG	CMV, CVYV, PM
		A very consistent dark green, cylindrical protective culture cucumber with a very low cull rate. Produces tight sets on a compact plant with excellent shelf life both on and off the plant.				

CUCUMBERS		PICKLING						Pricing on page 49
▲		Days	Habit	Plant	L/D Ratio	Color: Spine-Fruit	Disease	Features
23005	<b>Citadel</b> <sup>F1</sup>	50	GY	Medium	3.1	W-DG	A, ALS, CMV, DM, PM, S	Industry-leading disease package includes intermediate resistance to Downy Mildew. Excellent option for machine harvest due to concentrated fruit set.
★ 23014	<b>Eureka</b> <sup>F1</sup>	53	MO	Compact	3.1	W-DG	A, ALS, CMV, PM, PRSV, S, WMV	A monoecious hybrid with unique disease tolerances. Compare with your current favorite.
23003	<b>Supremo</b> <sup>F1</sup>	43	MO	Vigorous	3	W-DG	A, ALS, CMV, PM, PRSV, S, WMV, ZYMV	High quality dark green fruit with thick skin and a small seed cavity. Ideal for processing or fresh market. Can be staked or on the ground.
23025	<b>Vlasstar</b> <sup>F1</sup>	52	P	Vigorous	3	W-MDG	A, ALS, CMV, PM, S	A medium dark, blocky pickle that picks over a sustained multiple harvest.

CUCUMBERS PROTECTED CULTURE			
	Priced per package	100 Seeds	500 Seeds
23576 <b>Corinto</b>		32.95	109.70
			182.80

CUCUMBERS PICKLING		M=1,000 seeds				
	Priced per package	100 Seeds				
	Priced per 1,000 seeds in these package sizes		1M	5M	15M	75M*
23005 <b>Citadel</b> <sup>F1400</sup>	3.00	10.55	8.80	7.80	7.05	
23014 <b>Eureka</b> <sup>F1400</sup>	3.50	15.65	13.90	12.90	12.15	
23003 <b>Supremo</b> <sup>F1400</sup>	3.70	17.45	15.70	14.70	13.95	
23025 <b>Vlasstar</b> <sup>F1400</sup>	9.05	7.30	6.30	5.55		

\* Multiple packages may be used to fill orders for these quantities.

## GROWER PREFERRED ALL-STAR ★ CUCUMBERS

### PICKLING

Still continuing to rise, **Eureka** remains our #1 pickling variety, both in the number of customers that purchase and amount of seed sold. Eureka's high disease package and ideal length to diameter ratio provide an ideal product for grower and consumer alike. For tried and true, use Eureka.

### SLICER

**Bristol** is an exciting up and coming downy mildew tolerant slicing hybrid. Bristol yields a high percentage of fancy grade fruit due to plant health from multi-virus tolerance and the latest commercial strain of downy mildew tolerance. Use Bristol in late season plantings when downy mildew pressure is the highest.

### SLICER CONTINUED

Remaining strong, with the highest percentage of purchasing customers in the slicing cucumber section, is **Darlington**. Plant health and fruit quality are two of Darlington's greatest assets. While some varieties wilt under disease pressure like downy mildew, Darlington seems to power through due to its vigorous plant. Darlington is a proven variety.



Pete Dinius  
Product Development





BRISTOL ★



COBRA



DARLINGTON ★

**FarMore® FI400**  
Cucurbits

The early-season insect protection offered by FarMore Technology can prevent or eliminate damage caused by cucumber beetles.

[www.ruppseeds.com/fi400](http://www.ruppseeds.com/fi400)



FarMore® treated items are highlighted in green in the price tables. Look for this symbol in the product description tables marking FarMore treated items.

## CUCUMBERS

## SLICERS

		Days	Habit	Plant	L/D Ratio	Color	Disease	Features
★	23512 <b>Bristol</b> <sup>F1</sup>	54	GY	Moderately Vigorous	8 1/4 x 2 1/4"	DG	A, ALS, CMV, DM, PM, PRSV, S, ZYMV	Early maturing, second generation hybrid with intermediate resistance to downy mildew plus multi-virus tolerance that delivers an improved disease package when compared to SV3462CS and SV4719CS. High number of fancy fruit that allows the grower to potentially experience higher marketable yields.
	23004 <b>Cobra</b> <sup>F1</sup>	60	GY	Vigorous	9.5 x 2"	DG	A, ALS, CMV, PM, PRSV, S, WMV, ZYMV	Productive hybrid with an excellent disease package and outstanding fruit quality. Can be used on open ground or plastic production. Holds its length well even during periods of stress.
★	23568 <b>Darlington</b> <sup>F1</sup>	62	GY	Vigorous	8 - 9 x 2"	DG	A, ALS, CMV, PM, PRSV, S, TLS, WMV, ZYMV	A Seminis multi-virus tolerant variety that holds up well under foliar disease pressure. Consistent yield of select fruit that are straight and have excellent color. Maintains optimum length under Northeast conditions.

## CUCUMBERS SLICERS

M=1,000 seeds

Priced per package		100 Seeds				
Priced per 1,000 seeds in these package sizes		1M	5M	15M	75M*	350M
23512 <b>Bristol</b> <sup>FI400</sup>		17.80	16.30	15.30	14.55	13.55
23004 <b>Cobra</b> <sup>FI400</sup>		20.50	19.00	18.00	17.25	16.25
23568 <b>Darlington</b> <sup>FI400</sup>		6.80	24.55	23.05	22.05	21.30
23502 <b>Brickyard</b> <sup>FI400</sup>		17.80	16.30	15.30	14.55	13.55
23505 <b>Raceway</b> <sup>FI400</sup>		17.80	16.30	15.30	14.55	13.55
Special priced for bedding plants or market.						
23564 <b>Conquistador</b>		35.75	34.25	33.25	32.50	31.50
23504 <b>Potluck</b>		9.85	35.75	34.25	33.25	32.50
23552 <b>Thunderbird</b>		3.80	13.70	12.20	11.20	10.45

\* Multiple packages may be used to fill orders for these quantities.



FAIRY TALE



GAUDI **NEW**



HANSEL



WHITE STAR

EGGPLANT						
		Days	Plant Size	Fruit Shape	Color	Features
24505	<b>Epic</b> <sup>F1</sup>	64	36"	Oval	Purple Black	Commercial grower variety. Resistant to Tobacco Mosaic Virus.
24526	<b>Fairy Tale</b> <sup>F1</sup>	50	18 - 24"	Slender	Lavender	An AAS winner. Fruit are bright lavender, up to 5" long, good to eat, on a dwarf plant. Can be grown in pots, planters or on your patio.
<b>NEW</b> 24502	<b>Gaudi</b> <sup>F1</sup>	80	30 - 36"	Obovate	Deep Purple, Black	Gaudi has long oval shaped fruit with a bright green calyx. Usually the calyx is spineless, but under certain conditions a few small spines can develop. The fruit is firm and is grown on a medium-tall, upright strong growing bush. The variety can be grown indoor and outdoor with good results.
24525	<b>Hansel</b> <sup>F1</sup>	55	18"	Slender	Purple	AAS winning Japanese eggplant from Seminis. Fruit are dark glossy purple, born in finger-like clusters and have a bright green calyx. Yields are much higher than similar sized Little Fingers.
24524	<b>Nadia</b> <sup>F1</sup>	70	24 - 30"	Oval Long	Black	An attractive purple black hybrid from Vilmorin. Fruit are 9" long by 4½" around. Colors early, sets under cool conditions with a durable plant for frequent pickings.
24516	<b>Santana</b> <sup>F1</sup>	80	30"	Elongated Oval	Glossy Black Purple	A high yielding hybrid from Syngenta that performs where it matters most; yield, size and quality! One of the best for heat tolerance without fruit fading problems. Has reduced spines to prevent fruit scar.
24510	<b>White Star</b> <sup>F1</sup>	75	30 - 36"	Teardrop	White	Classic tapered teardrop shape. Creamy white fruit are smooth when mature. Approximately 5 to 7 inches in length with a diameter of 2 inches at top and 3.5 to 4 inches at bottom.

ENDIVE / ESCAROLE		CHICORY	
▲		Days	Features
Endive - narrow, finely cut, curly leaves			
25010	Tres Fine Maraichere	45	A finely cut, lovely green and very fine baby endive with outstanding flavor for the truly French gourmet salads. A petite, fern-like mound.

EGGPLANT		M=1,000 seeds				
	Priced per package	1/4 oz.	1/2 oz.	1 oz.	4 oz.	1#
24503 <b>Black Shine</b>		28.35	49.30	78.85	237.10	
	Priced per package	500 Seeds				
	Priced per 1,000 seeds in these package sizes	1M	5M	25M	100M	
24505 <b>Epic</b>		7.00	11.15	10.05	9.65	9.10
24526 <b>Fairy Tale</b>		40.35	64.55	63.45	63.05	62.50
24502 <b>Gaudi</b>		17.05	27.25	26.15	25.75	25.20
24525 <b>Hansel</b>		40.35	64.55	63.45	63.05	62.50
24524 <b>Nadia</b>		13.50	21.55	20.45	20.05	19.50
24516 <b>Santana</b>		9.50	15.20	14.10	13.70	13.15
24510 <b>White Star</b>		9.50	15.20	14.10	13.70	13.15

ENDIVE / ESCAROLE CHICORY		M=1,000 seeds		
	Priced per 1,000 seeds in these package sizes	10M	100M	400M
25010U <b>Tres Fine Maraichere</b> <sup>Untreated</sup>		0.55	0.50	0.40





GIZMO  pg. 53

# GOURDS

## PLANTING

Direct seed in soils that are above 70° F. Plant gourds ½" - 1" deep. For a general rule of thumb plant seed the depth of three times the thickness of the seed. Plant spacing varies depending on fruit size. For small and miniature gourds plant at approximately 5 - 10 sq. ft. per plant. For large gourds plant them at 30 sq. ft. per plant.

See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## MANAGEMENT

Scout fields every 7 days to ensure crop health. Look for insect, weed, and disease pressure. The first three weeks focus on weeds and insect pressure. Then focus on disease pressure. For weed, insect, and disease identification and treatments consult the Midwest Vegetable Production Guide: [www.ruppseeds.com/MVPG](http://www.ruppseeds.com/MVPG) or your local extension. Place pollinators in field to ensure maximum fruit set.

## HARVEST

Harvest when fruit have developed deep vibrant color or when plants start to die down. Clean gourds of dirt, then dip them in a 5% chlorine solution to ensure long shelf life.

## STORAGE

Place gourds in a dry place that will have good air circulation to prevent rotting.





AUTUMN WINGS  
LARGE SWAN



AUTUMN WINGS  
MEDIUM



AUTUMN WINGS  
BLEND



GALAXY OF STARS














GIZMO



GOBLIN EGGS

GOURDS		LAGENARIA SICERARIA		Pricing on page 54
		Days	Features	
26034	<b>Birdhouse Martinhouse</b>	100	A purified strain of the original birdhouse gourd. 10" diameter by 15" tall. Tan, smooth and hard shelled.	
26002	<b>Bushel</b>	120	12 - 18" diameter with fruit weighing from 30 - 100 lbs. Excellent for arts and crafts when cured.	
26035	<b>Extra Long Handled Dipper</b>	120	A dipper gourd with a 3 - 4' long handle. Grow on trellis for straight gourds.	
26033	<b>Large Speckled Apple</b>	120	A large true apple shaped gourd 4 - 5" in diameter and 6 - 7" tall. Great for table decorations.	
26025	<b>Miniature Bottle</b>	100	A miniature sized bottle gourd, 2" in diameter by 4" long.	
26004	<b>Mixed Large Types</b>	100 - 130	A new mix of large types that are favorites of Rupp growers including; Birdhouse Martinhouse, Calabash, Extra Long Handled Dipper, Large Bottle, Large Speckled Apple and Speckled Swan.	
26027	<b>Speckled Swan</b>	100	A large, crookneck gourd whose tip looks like a swan's head; 14 - 18" long with a 6" base.	

GOURDS		PEPO		Pricing on page 54
		Days	Features	
26501	<b>Autumn Wings Large Swan</b> 	100	A unique gourd of many colors with wings, warts, and the fruit shape of a swan gourd. Its bulb size is 2 ½ or 3" in diameter with a neck up to 12" long. A grand addition to our other fancy ornamental selections for the ornamental trade.	
26502	<b>Autumn Wings Medium</b> 	100	A unique gourd of many colors with the fruit shape of a spoon but with wings. Its bulb size is 2 ½ or 3" in diameter with a neck up to 6" long. A grand addition to our other fancy ornamental selections for the ornamental trade.	
26503	<b>Autumn Wings Small</b> 	100	A unique gourd of many colors with wings and fruit shape of a swan pear. Its bulb size is 2 ½ or 3" in diameter with a neck up to 4 - 5" long. Has great potential for the shipper if the wings can be protected from breakage.	
26510	<b>Autumn Wings Blend</b> 	100	A blend of 50% Autumn Wings Small, 25% Autumn Wings Medium, and 25% Autumn Wings Large.	
26042	<b>Galaxy of Stars</b> 	90 - 100	An exciting Rupp hybrid gourd mixture in the shape of a 5 point star in many colors that can be mechanically washed. A unique gourd for table decorations.	
 26009	<b>Gizmo</b> 	90 - 100	A Rupp winged gourd mix, which is unique for its bush plant type, offers fruit with rich colors including dark green, orange, yellow, light green, and white. This hard-shelled variety yields fruit that are 3 - 5" tall by 6 - 8" wide at the tip of the wings. Is sure to be another great addition to your fall decoration lineup.	
26039	<b>Goblin Eggs</b>	90 - 100	A Hollar product that produces a multitude of egg shaped gourds in a rainbow of colors and stripes. The logical replacement for Nest Egg gourd.	
 26012	<b>Hoargarth</b> 	90	A distinctive orange and dark green gourd that will add texture to your fall displays. The wart covered fruit are 7" wide by 5" high and grow on an intermediate bush plant.	
26043	<b>Lunch Lady</b>	110	A one-of-a-kind large warted gourd. It produces an array of shapes & colors with fruit sizes from 3-10 lbs, all hard shells with warts.	
26010	<b>Pear Bi-Color</b>	90	A pear shaped fruit that is smooth and hard, yellow on the upper half, green bottom half, yellow stripes.	
26026	<b>Rupp Fancy Warted</b> 	100	A mixture of warted gourds with shapes like spoons, pears, and rounds; all warted and very colorful.	
26005	<b>Rupp Small Formula Blend</b> 	90 - 100	A blend of fancy small types with a few plain varieties. Includes Shenot Crown of Thorns, Rupp Fancy Warted and Small Spoon.	



HOARGARTH



LUNCH LADY



RUPP FANCY  
WARTED



RUPP SMALL  
FORMULA BLEND

## GOURDS LAGENARIA SICERARIA

	Priced per package		1 oz.	4 oz.		
	Priced per pound				1#	5#
	in these package sizes					Seeds /lb.
26034 <b>Birdhouse Martinhouse</b>	8.95	21.05	59.70	58.70		3,500
26034U <b>Birdhouse Martinhouse</b> <small>Untreated</small>	8.95	21.05	59.70	58.70		3,500
26002U <b>Bushel</b> <small>Untreated**</small>	12.65	29.65	84.00			1,800
26035 <b>Extra Long Handled Dipper</b>	9.35	21.90	62.05	61.05		4,500
26033 <b>Large Speckled Apple</b>	10.35	24.35	69.05	68.05		2,400
26025 <b>Miniature Bottle</b>	10.95	25.75	72.95	71.95		5,000
26004 <b>Mixed Large Types</b>	10.40	24.45	69.25	68.25		2,400
26027 <b>Speckled Swan</b>	9.35	21.90	62.05	61.05		2,200

\*\* 15 seeds for \$5.25

## GOURDS PEPO

M=1,000 seeds Descriptions on page 53

	Priced per package		1 oz.	4 oz.		
	Priced per pound				1#	5#
	in these package sizes					Seeds /lb.
26043 <b>Lunch Lady</b>	20.00	47.05	137.35	134.35		3,300
26010 <b>Pear Bi-Color</b>	10.15	23.85	69.60	66.60		10,100
26026 <b>Rupp Fancy Warted</b>	14.25	33.45	97.60	94.60		8,600
26005 <b>Rupp Small Formula Blend</b>	10.50	24.60	71.75	68.75		9,300
	Priced per package		250 Seeds			
	Priced per 1,000 seeds				1M	5M
	in these package sizes					25M
						Seeds /lb.
26501 <b>Autumn Wings Large Swan</b>	8.50	24.45	23.45	22.45		7,300
26501 <b>Autumn Wings Large Swan</b> <small>F400</small>	10.55	30.25	29.25	28.25		7,300
26501U <b>Autumn Wings Large Swan</b> <small>Untreated</small>	8.50	24.45	23.45	22.45		7,300
26502 <b>Autumn Wings Medium</b>	8.50	24.45	23.45	22.45		8,000
26502 <b>Autumn Wings Medium</b> <small>F400</small>	10.55	30.25	29.25	28.25		8,000
26502U <b>Autumn Wings Medium</b> <small>Untreated</small>	8.50	24.45	23.45	22.45		8,000
26503 <b>Autumn Wings Small</b>	8.50	24.45	23.45	22.45		7,800
26503 <b>Autumn Wings Small</b> <small>F400</small>	10.55	30.25	29.25	28.25		7,800
26503U <b>Autumn Wings Small</b> <small>Untreated</small>	8.50	24.45	23.45	22.45		7,800
26510 <b>Autumn Wings Blend</b>	8.50	24.45	23.45	22.45		7,900
26042 <b>Galaxy of Stars</b>	27.65	79.45	78.45	77.45		10,000
26042 <b>Galaxy of Stars</b> <small>F400</small>	29.65	85.30	84.30	83.30		10,000
26042U <b>Galaxy of Stars</b> <small>Untreated</small>	27.65	79.45	78.45	77.45		10,000
26009 <b>Gizmo</b> <small>F400</small>	32.85	94.50	93.50	92.50		6,600
26039 <b>Goblin Eggs</b>	29.70	85.40	84.40	83.40		14,200
26012 <b>Hoargarth</b> <small>F400</small>	32.85	94.50	93.50	92.50		3,500
26041 <b>Koshare Yellow</b>	29.70	85.40	84.40	83.40		11,000

## FarMore® FI400

Cucurbits

The early-season insect protection offered by FarMore Technology can prevent or eliminate damage caused by cucumber beetles. Additionally, the insecticide component has shown a remarkable ability to improve plant vigor and growth under certain environmental conditions. This patented vigor effect leads to more advanced crop development and superior performance that is especially important when pumpkin crops are under stress. [www.ruppseeds.com/fi400](http://www.ruppseeds.com/fi400)



FarMore® treated items are highlighted in the green in the price tables.

Look for this symbol in the product description tables marking FarMore treated items.



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EMILY



EVERLEAF  
GENOVESE



GENOVESER



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## HERBS

Pricing on page 57

		Annual / Perennial	Features
<b>Basil</b>			
27003	<b>Eleonora</b>	A	Intermediate resistance to downy mildew. Big, lightly serrated leaves. For open field and in pots.
27035	<b>Emily</b>	A	A compact Genovese type basil with medium to large leaves. Because of improved shelf life Emily is recommended for summer production and year round in hot climates; works well in the field or greenhouse. Excellent performance against Fusarium.
27006	<b>Everleaf Genovese</b>	A	The first basil bred for season-long performance and continual harvesting. Flowers up to 8 weeks later than standard basil. Compact, highly branched plant perfect for in-ground and potted plant production. Robust Genovese flavor, perfect for pesto and other sauces. IR to downy mildew and R to Fusarium.
27033	<b>Genoveser</b>	A	A special, high yielding strain, dark green, cup shaped selection, glossy leaf, recommended for field production.
27012	<b>Italian Large Leaf</b>	A	Leaves are broad, oval and crinkly with spicy flavor. Used in perfumes, Italian seasonings, and soups.
27017	<b>Lemon</b>	A	Pleasing citrus aroma, excellent in vinegars or with fish.
27018	<b>Purple</b>	A	Has a plant with intense purple leaves used for ornamental plantings and seasonings.
27030	<b>Siam Queen</b>	A	An improved cultivar of ornamental and aromatic Thai basil. Has 3" leaves, distinctive purple stems, and is an eye catching addition with flowers for an edible landscape accent. Has an exotic flavor.
<b>Catnip</b>			
27509	<b>Catnip</b>	P	A vigorous growing mint loved by cats. Grayish green leaves have a strong mint-like flavor.
<b>Chervil</b>			
27005	<b>Chervil</b>	A	The fine cut, deep green leaves look like a delicate, lacy version of parsley. Flavor is a mild anise/parsley and goes well with fish, seafood, eggs or in salads. At its best fresh from the garden.
<b>Chives</b>			
27514	<b>Staro</b>	P	Extra thick, dark green leaved variety for all growing purposes. Excellent for forcing and pot growing as well as field production.
<b>Coriander / Cilantro</b>			
27002	<b>Calypso</b>	A	British bred coriander has excellent bolting resistance and can be cut back and allowed to re-grow at least 3 times throughout the summer due to its extremely low growing point. This quick growing annual herb is best grown for its delicious foliage that can be added to salads, curries and soups.
<b>Dill</b>			
27516	<b>Green Sleeves</b>	A	A very stable, fast growing, medium fine leafed variety of dark green dill for production of fresh bundles. Strong bolt resistance. 2 - 2 ½ feet tall.
<b>Lavender</b>			
27502	<b>Lavender</b> <sup>Vera</sup>	P	Great for dried flowers, perfuming linens, and repelling moths. Hardy.

Additional Herbs can be found on the next page --->.





GREEN SLEEVES



OREGANO  
VULGARE



GIGANTE D'ITALIA



SAGE



SUMMER SAVORY

## HERBS

Pricing on page 57

		Annual / Perennial	Features
<b>Oregano</b>			
27503	<b>Oregano</b> <small>Vulgare</small>	P	Purple flowered. Seasons tomato sauces, fish, salad dressings and pizza.
<b>Parsley</b> additional Parsley on page 69			
35012	<b>Gigante d'Italia</b>	A	A plain, dark green, large leaf sized variety; very aromatic and high yielding with multiple cuts.
<b>Peppermint</b>			
27504	<b>Peppermint</b>	P	Leaves used as mint tea and as a meat garnish. In addition, the mint oil has many other uses.
<b>Rosemary</b>			
27505	<b>Rosemary</b>	P	Leaves are used in seasoning meats, sauces, and wonderful for potpourri.
<b>Sage</b>			
27506	<b>Sage</b>	P	Most widely used herb. Seasons poultry, sausage, etc.
<b>Summer Savory</b>			
27011	<b>Summer Savory</b>	A	Fresh or dried, used as seasonings in gravies and stews.
<b>Thyme</b>			
27508	<b>German Winter</b>	P	Excellent seasoning for soups, i.e. clam chowder, as well as poultry, stews, sauces, pickles and salads.



## SAVE WITH CASH DISCOUNTS

Cash discounts are available throughout the season and are a great way to add money to your bottom line.  
See page 6 for all of the details.

December . . . . .6%  
January . . . . .5%  
February . . . . .4%  
March . . . . .3%  
April . . . . .2%

## HERBS FOR THE PROFESSIONAL

M=1,000 seeds

	Priced per package Priced per pound in these package sizes			M=1,000 seeds		
	1/4 oz	1 oz.	4 oz.	1#	5#	25#
<b>Basil</b>						
27035 <b>Emily</b>	2.60	6.00	17.55	46.70	45.70	44.70
27033 <b>Genoveser</b>	2.60	4.80	13.85	36.85	35.85	34.85
<b>Italian Large Leaf</b>						
27012U <b>Untreated</b>	2.60	3.45	10.05	26.70	25.70	24.70
27017U <b>Lemon Untreated</b>	3.10	9.80	28.75	76.60	75.60	
27018U <b>Purple Untreated</b>	3.25	10.35	30.30	80.80	79.80	
27030U <b>Siam Queen Thai Untreated</b>	6.75	21.60	63.40	169.00	168.00	
<b>Priced per 1,000 seeds in these package sizes</b>						
	1M	10M	100M	500M	1000M	
27003 <b>Eleonora</b>	0.70	0.55	0.45	0.40	0.35	
27006 <b>Everleaf Genovese</b>	19.25	19.10	19.00	18.95	18.90	
<b>Priced per package Priced per pound in these package sizes</b>						
	1/4 oz	1 oz.	4 oz.	1#	5#	25#
<b>Catnip</b>						
27509U <b>Catnip Untreated</b>	2.60	7.00	20.50	54.60		
<b>Chervil</b>						
27005U <b>Chervil Untreated</b>		2.80	7.50	19.90	18.90	
<b>Chives</b>						
27514 <b>Staro</b>	3.25	10.30	30.15	80.30	79.30	78.30
<b>Coriander / Cilantro</b>						
27002U <b>Calypso Untreated</b>		2.80	3.90	10.30	9.30	8.30
27039 <b>Marino</b>		2.50	3.55	9.35	8.35	7.35
<b>Dill</b>						
27516 <b>Green Sleeves</b>		3.00	8.05	21.40	20.40	19.40
<b>Lavender</b>						
27502U <b>Lavender Vera Untreated</b>	7.00	22.25	65.35	174.25	173.25	
<b>Oregano</b>						
27503U <b>Oregano Vulgare Untreated</b>	7.00	22.25	65.35	174.25	173.25	

## HERBS FOR THE PROFESSIONAL

M=1,000 seeds

	Priced per package Priced per pound in these package sizes			M=1,000 seeds		
	1/4 oz	1 oz.	4 oz.	1#	5#	25#
<b>Parsley</b>						
35012 <b>Gigante d'Italia</b>		4.65	6.45	18.30	17.30	16.30
35013 <b>Peione</b>		5.70	7.80	22.20	21.20	20.20
<b>Peppermint</b>						
27504U <b>Peppermint Untreated</b>	16.60	53.05	155.95	415.75	414.75	
<b>Rosemary</b>						
27505U <b>Rosemary Untreated</b>	31.45	100.55	295.70	788.50	787.50	
<b>Sage</b>						
27506U <b>Sage Untreated</b>		11.55	33.85	90.25	89.25	
<b>Summer Savory</b>						
27011U <b>Summer Savory Untreated</b>		3.90	11.25	29.90	28.90	
<b>Thyme</b>						
27508U <b>German Winter Untreated</b>	5.95	18.90	55.50	148.00	147.00	





BLUE RIDGE pg. 59

# KALE

## PLANTING

Plant rows 2' - 3' apart with plants 8" - 16" apart. Seeding rate should be approximately 2 to 4 pounds per acre. Preplant fertilizer should be 60 pounds per acre of nitrogen, 0 - 60 pounds of phosphorus, and 0 - 200 pounds of potassium per acre depending on soil test results.

See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## MANAGEMENT

Sidedress 30 - 60 pounds of nitrogen after transplants are established. Use crop rotation to help combat disease pressure. Scout fields for disease, mildew, and insects.

## HARVEST

Kale can be harvested three ways: whole plant, bunched leaves, or "stripped" leaves. "Stripped" kale is pre-packaged for fresh market in all methods; yellow or damaged leaves must be removed before packing.

## STORAGE

Leafy greens can be stored close to 32°F. At this temperature, they can be held for 10 - 14 days.





BLACK MAGIC



BLUE RIDGE



KOLIBRI **NEW**



QUICKSTAR

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KALE			
		Height	Features
<b>Fresh Market</b>			
28005	<b>Black Magic</b>	12 - 14"	Winter hardy Tuscan type with darker, savoyed leaves than conventional kales. Flavor improves with frost. Harvest early to use baby leaf as a savoyed brassica. Mature leaves grow as a rosette rather than on a true stem.
28504	<b>Blue Ridge</b> <sup>F1</sup>	12 - 14"	A superior quality kale that is slow to bolt and yields a highly frilled leaf suitable for both processing or fresh market bunching.
28503	<b>Winterbor</b> <sup>F1</sup>	18 - 24"	A Vates Blue Curled type with tall stems that allow easier stripping.
<b>Heritage Varieties</b>			
28004	<b>Red Russian</b>	24 - 36"	The most tender, mild flavored kale variety. Will wilt soon after harvest; should be cooled or consumed promptly.

KOHLRABI			
		Days	Features
<b>Fresh Market</b>			
<b>NEW</b> 29002	<b>Kolibri</b> <sup>F1</sup>	45	Prettiest, most uniform purple variety available. 3" bulb with deep purple skin and crisp white flesh.
29004	<b>Quickstar</b> <sup>F1</sup>	49	A Sakata variety that is slow to bolt. Slightly broad dark green leaves. Extremely uniform fruit.

KALE		M=1,000 seeds			
		Priced per 1,000 seeds in these package sizes			
		1M	5M	25M	100M
28005	<b>Black Magic</b>	3.65	2.60	1.90	1.40
28504	<b>Blue Ridge</b>	10.40	9.35	8.65	8.15
28503	<b>Winterbor</b>	10.40	9.35	8.65	8.15
		Priced per package 4 oz.			
		Priced per pound in these package sizes			
		1#	5#	25#	
28004U	<b>Red Russian</b> <sup>Untreated</sup>	13.80	30.70	30.20	29.95

KOHLRABI		M=1,000 seeds			
		Priced per 1,000 seeds in these package sizes			
		1M	5M	25M	100M
29002	<b>Kolibri</b>	14.80	14.25	13.75	13.25
29004	<b>Quickstar</b>	8.55	8.00	7.50	7.00



TADORNA



ALKINDUS



BARILLA



SOMERSET **NEW**



BERGAM'S GREEN



NEW RED FIRE

## LEEK

	Days	Features
30908 <b>Tadorna</b>	100	An Enza variety that grows upright with a long white shaft and dark blue green foliage. Excellent quality for fall harvest, but can be over wintered where moderate winter conditions prevail. Good field holding ability and very easy to clean.

## LETTUCE

	Features
<b>Butterhead</b>	
30309 <b>Alkindus</b> <sup>Red</sup>	A mid-sized variety with beautiful dark red color which is suitable for full season production.
30504 <b>Barilla</b> <sup>Green</sup>	A medium to dark green, thick-leaved lettuce with a strong base and good volume. It is strong against internal tipburn and appropriate for late spring and early autumn crops.
<b>Iceberg</b>	
<b>NEW</b> 30704 <b>Somerset</b> <sup>Green</sup>	A new summer Iceberg producing a flat round head with smooth ribs and great head protection. Somerset has good tolerance to tipburn and bolting.
<b>Leaf</b>	
30304 <b>Bergam's Green</b> <sup>Green</sup>	A non-heading, dark green variety.
30016 <b>New Red Fire</b> <sup>Red</sup>	The premier red lettuce for market growers. Superior appearance. Mosaic indexed.
30013 <b>Red Mist</b> <sup>Red &amp; Green</sup>	Early variety with nice color contrast between red and green and high bolting tolerance. Also has moderate cold tolerance and strong tolerance to heat. Harvest summer to fall. Adapted for all major lettuce growing regions.
<b>Romaine</b>	
30214 <b>Breen</b> <sup>Red</sup>	A unique variety due to its brilliant purple-red exterior color and the interior green color. Top closes nicely, resulting in a perfect formed heart. Great tasting with excellent shelf life.
30211 <b>Coastal Star</b> <sup>Green</sup>	Taller and darker plant for spring and fall harvest. Early maturing and produces large and heavy heads.
<b>Romaine Heart</b>	
30203 <b>Arroyo</b> <sup>Green</sup>	A commercial introduction suitable for carton, fresh market and heart production. Shiny dark green. Broad seasonal adaptability.



RED MIST



BREEN



ARROYO



## SAVE WITH CASH DISCOUNTS

Cash discounts are available throughout the season and are a great way to add money to your bottom line.  
See page 6 for all of the details.

December.....	6%
January.....	5%
February.....	4%
March.....	3%
April.....	2%

## LEEK

M=1,000 seeds

*Priced per 1,000 seeds  
in these package sizes*

	1M	10M	100M	500M*
30908P <b>Tadorna</b> Pelleted	5.60	5.35	5.15	5.00

\* Multiple packages may be used to fill orders for these quantities.

## LETTUCE EAZY LEAF

M=1,000 seeds

*Priced per 1,000 seeds  
in these package sizes*

	1M	10M
30404P <b>Jeanine</b> Pelleted	7.10	6.10

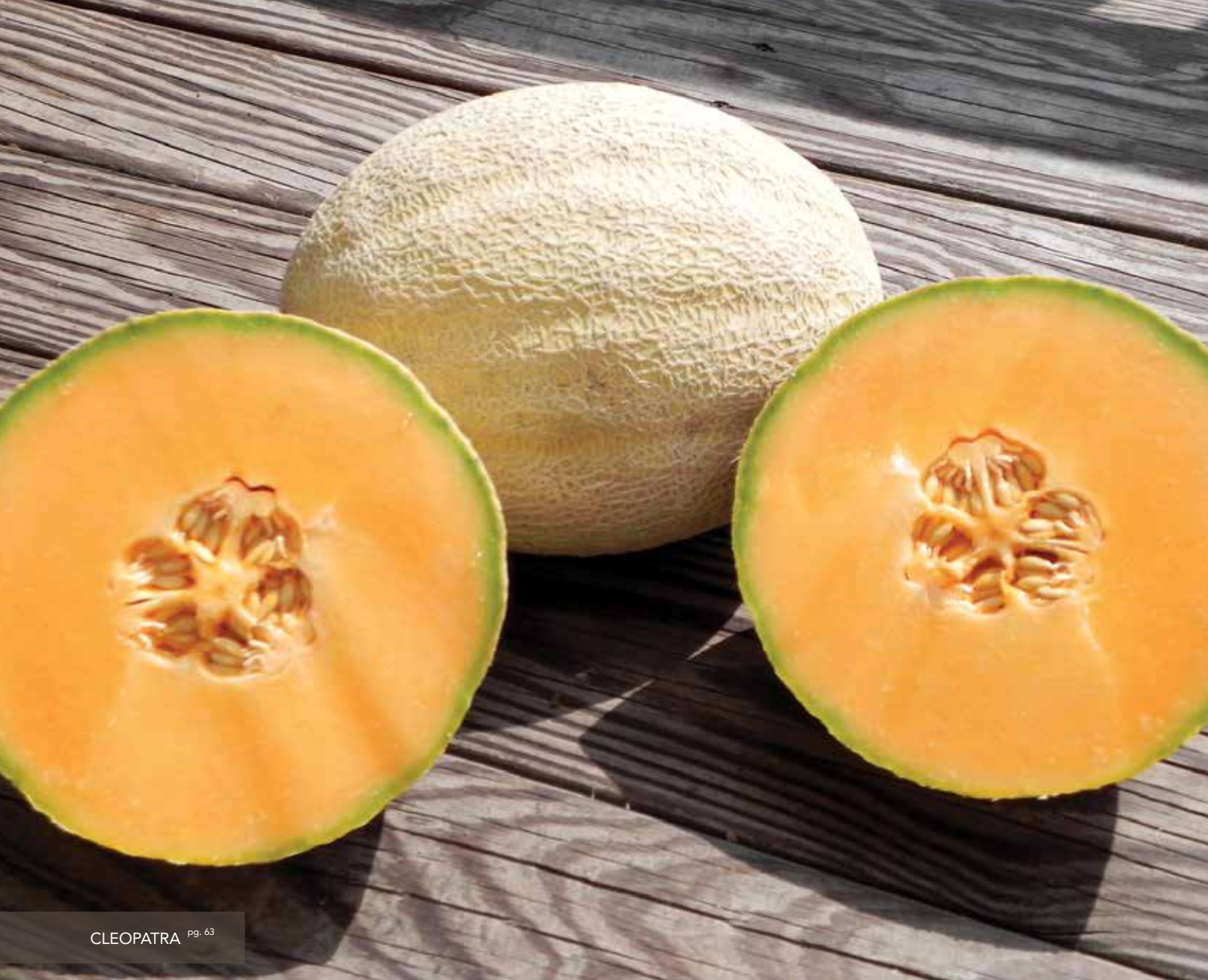
## LETTUCE

M=1,000 seeds

*Priced per 1,000 seeds  
in these package sizes*

	5M	100M	500M
<b>Butterhead</b>			
30309P <b>Alkindus</b> Primed/Pelleted	5.85	5.50	5.25
30504P <b>Barilla</b> Primed/Pelleted	3.65	3.30	3.05
<b>Iceberg</b>			
30704P <b>Somerset</b> Pelleted	2.50	2.15	1.90
<b>Leaf</b>			
30304P <b>Bergam's Green</b> Primed/Pelleted	2.20	1.85	1.60
30016P <b>New Red Fire</b> Pelleted	2.30	1.95	1.70
30016 <b>New Red Fire</b>	1.35	1.00	0.75
30013P <b>Red Mist</b> Primed/Pelleted	2.45	2.10	1.85
<b>Romaine</b>			
30214P <b>Breen</b> Pelleted	4.75	4.40	4.15
30211P <b>Coastal Star</b> Pelleted	2.10	1.75	1.50
<b>Romaine Heart</b>			
30203P <b>Arroyo</b> Pelleted	2.55	2.20	1.95





CLEOPATRA pg. 63

# MELONS

## PLANTING

When direct seeding plant  $\frac{1}{2}$ " - 1" deep. Soil temperature should be 75 - 85°F. Five to six feet is the recommended row spacing with 18 - 24 inches between plants. If starting with transplants sow 3 - 5 weeks prior to planting outside.

See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## MANAGEMENT

To ensure high yield place pollinators near fields. A melon needs to be visited by a bee three times to ensure proper pollination. Scout every seven days for weed, insect, and disease pressure. Contact your local extension agent or consult the Midwest Vegetable Production Guide for identification and treatment options. [www.ruppseeds.com/MVPG](http://www.ruppseeds.com/MVPG)

## HARVEST

Harvest 30 - 35 days after pollination. If shipping, pick at half slip. When picking for fresh market, pick at  $\frac{3}{4}$  to full slip. Wash fruit in peroxyacetic acid (peroxide and acetic acid), as a non-chlorine sanitizing option.

## STORAGE

Cool to at least 70°F and at 95% humidity. Shelf life is based on storage temperature. Do not cool below 32°F.

## DISEASE CODES

A - Anthracnose  
DM - Downy Mildew  
F - Fusarium  
GSB - Gummy Stem Blight  
PM - Powdery Mildew  
PRSV - Papaya Ring Spot Virus  
WMV - Watermelon Mosaic Virus  
ZYMV - Zucchini Yellow Mosaic Virus



ACCOLADE



AFTERGLOW ★



APHRODITE ★



ASTOUND



ATHENA ★










AVATAR ★

## MELONS

## CANTALOUPE Hybrid

Pricing on page 64

		Days	Fruit Size pounds	Net / Sutures	Flesh Color	Disease	Features
31015	<b>Accolade</b> 	73	6	Medium Net / Light Sutures	Orange	F <sup>0,1,2</sup> , PM	Improved internal fruit quality for extended shelf life. Enhanced vine strength. Tight seed cavity with firm flesh.
★ 31017	<b>Afterglow</b>	78	5 - 7	Medium Net / Deep Green Sutures	Orange	F <sup>0,1,2</sup> , PM <sup>1,2</sup>	Late sutured melon with high Brix and firm flesh for extended holdability.
★ 31071	<b>Aphrodite</b> 	75	6 - 8	Coarse Net / Light Sutures	Salmon	F <sup>0,1,2</sup> , PM <sup>1,2</sup>	Today's standard for Eastern shipping melons. Larger and better holding ability than the former standard, Athena.
31016	<b>Astound</b> 	75	6	Medium Net / Light Sutures	Orange	F <sup>0,1,2</sup> , PM	Another new Syngenta release with improved flesh firmness. Very similar to Accolade while maturing approximately 2 days later.
★ 31050	<b>Athena</b> 	80	5 - 7	Medium Net / Light Sutures	Salmon	F <sup>0,1,2</sup> , PM <sup>1,2</sup>	Athena delivers the sweet flavor and texture consumers demand. Athena melons stay firm even when harvested at full slip.
★ 31084	<b>Avatar</b> 	75	7 - 9	Full Net	Orange	F <sup>0,1,2</sup> , PM <sup>1,2</sup>	Large Eastern shipper with medium open cavity. Firm, flavorful orange flesh. Exterior is light green and turns to a yellow-tan when fully ripe. Ideal for higher latitudes.
31014	<b>Cleopatra</b>	70	4 - 6	Medium Net / Light Sutures	Orange	F <sup>0,1,2</sup> , PM <sup>1,2</sup>	Consistent early fruit set. Tight seed cavity and great quality for an early variety. Suitable for local delivery, roadside stands and fresh market. Great as a first early or to plant with Goddess.
 31020	<b>Damaris</b> 	78 - 80	5 - 6	Medium Net / No Sutures	Orange	F <sup>0,2</sup> , PM <sup>2,3,5</sup>	Damaris is an oval-shaped, extended shelf life melon with a solid disease package. Features a tight cavity with firm flesh.
★ 31075	<b>Goddess</b>	68	5 - 6	Medium Net / Light Sutures	Orange	F <sup>0,1,2</sup> , PM <sup>1,2</sup>	An extremely early Athena type with good disease tolerance and good holding ability.

Additional Cantaloupe Melons can be found on the next page --->.

## GROWER PREFERRED ALL-STARS ★ MELONS

These melons continue to be the top performing varieties for growers. If you are looking to add melons to your operation you can't go wrong with these All-Stars.

### CANTALOUPE

**Afterglow** is an extremely dependable half Tuscan melon with high sugars and firm flesh. Afterglow will keep your customers coming back for more.

The most widely grown melon in the North and Midwest is **Aphrodite**. It is still the standard for many of our growers. This melon yields with the best of them.

**Athena** is the most widely grown melon in the Eastern U.S. With its excellent disease tolerance and sought after quality, it is well known in the marketplace.

Flavor, size and yield have combined to make **Avatar** a favorite of many of our growers. For those of you who are looking for a large eastern type melon, this is one to try.

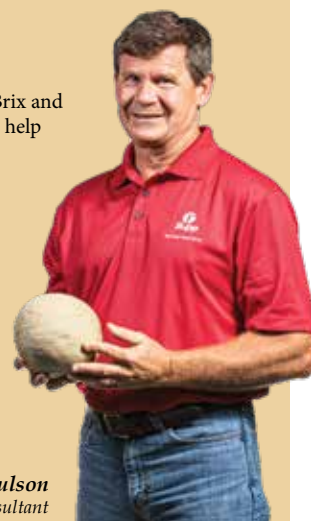
**Goddess** is an early Athena type with good disease tolerance and shipping ability. In the early category, this is the one you need to include in your program.

**Shockwave** is a long shelf life melon with high Brix and excellent flavor. It's color change at maturity will help indicate its peak quality at picking.

### PERSONAL SIZED

If you are looking for a personal sized hybrid, look no further than **Sugar Cube**, with perhaps the best eating quality of any melon on the market (high Brix, firm flesh, great flavor). Sample this one at your market and it will sell itself. It is also just the right size for smaller households or the CSA box. This melon slips easily and will hold and ship without losing quality. The perfect personal sized melon!

**Brad Paulson**  
Vegetable Consultant

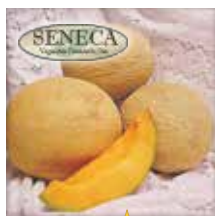




CLEOPATRA



DAMARIS **NEW**



GODDESS ★




INFINITE GOLD



SHOCKWAVE ★



SOLSTICE

MELONS		CANTALOUPE Hybrid					Pricing on page 64
		Days	Fruit Size pounds	Net / Sutures	Flesh Color	Disease	Features
31006	<b>Infinite Gold</b> 	84	5 - 7	Heavy Net / No Sutures	Deep Orange	F <sup>1,2</sup> , PM <sup>2</sup>	<i>This melon has been bred for strong performance and long shelf life, without sacrificing great flavor and fruit quality. Offers strong vines, high yield potential, uniform size and shape.</i>
★ 31009	<b>Shockwave</b>	85	4 - 6	Medium Net / No Sutures	Deep Orange	F <sup>0,1,2</sup> , PM <sup>1,2</sup>	<i>Outstanding eating quality with an average Brix of 15%. Has firm flesh with a very small seed cavity. This melon has an extended holdability for a controlled pick. Slips when mature.</i>
31085	<b>Solstice</b>	78	7 - 12	Heavy Net / Deep Sutures	Orange	F <sup>0,1,2</sup> , PM <sup>1,2</sup>	<i>A Seneca Vegetable Research release similar to old "Eastern" types. Has great sugar, flavor and yield. Very large fruit. Great disease package.</i>
31018	<b>Sugar Rush</b>	75	4	Medium Net / No Sutures	Orange	F <sup>0,1,2</sup> , PM <sup>1,2</sup>	<i>Quality meets size. This is the big brother to Sugar Cube. Productive plant and high Brix.</i>
31019	<b>Sun Blushed</b>	82	4 - 6	Heavy Net / Light Sutures	Deep Orange	F <sup>0,1</sup> , PM	<i>Extended shelf life (ESL) western type hybrid with excellent flavor. Firm and attractive flesh with extremely high Brix.</i>
31083	<b>Tirreno</b>	83	4 - 6	Medium Net / Deep Green Sutures	Orange	F <sup>1,2,5</sup> , PM <sup>1,2,3</sup>	<i>Possesses beautiful firm flesh and offers excellent holding ability. Also has shown tremendous plant health in the field for excellent yield potential. Very good eating quality.</i>

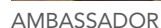
MELONS CANTALOUPE Hybrid		M=1,000 seeds					
	Priced per package	100 Seeds	500 Seeds	1M	5M	15M*	90M*
31015	<b>Accolade</b> <sup>F300</sup>	15.00	59.05	84.30	81.20	79.20	78.20
31017	<b>Afterglow</b>	11.10	43.55	62.20	59.10	57.10	56.10
31071	<b>Aphrodite</b> <sup>F300</sup>	13.45	52.95	75.60	72.50	70.50	69.50
31016	<b>Astound</b> <sup>F300</sup>	14.75	57.90	82.65	79.55	77.55	76.55
31050	<b>Athena</b> <sup>F300</sup>	13.75	54.00	77.10	74.00	72.00	71.00
31084	<b>Avatar</b> <sup>F300</sup>	11.70	46.05	65.75	62.65	60.65	59.65
31014	<b>Cleopatra</b>	11.15	43.80	62.55	59.45	57.45	56.45
31020	<b>Damaris</b> <sup>F300</sup>	14.75	57.95	82.75	79.65	77.65	76.65
31075	<b>Goddess</b>	12.15	47.80	68.25	65.15	63.15	62.15
31006	<b>Infinite Gold</b> <sup>F300</sup>	20.35	80.00	114.25	111.15	109.15	108.15
31009	<b>Shockwave</b>	15.30	60.05	85.75	82.65	80.65	79.65
31085	<b>Solstice</b>	11.15	43.80	62.55	59.45	57.45	56.45
31018	<b>Sugar Rush</b>	12.55	49.25	70.30	67.20	65.20	64.20
31019	<b>Sun Blushed</b>	13.00	51.00	72.85	69.75	67.75	66.75
31083	<b>Tirreno</b>	21.80	85.80	122.55	119.45	117.45	116.45

\* Multiple packages may be used to fill orders for these quantities.

MELONS MIXED/SPECIALTY Hybrid		M=1,000 seeds			
	Priced per package	100 Seeds	500 Seeds	1M	5M
31704	<b>Ambassador</b>	11.65	46.20	65.95	62.85
31011	<b>Earli-Dew</b> <sup>F300</sup>	12.65	50.15	71.60	68.50

\* Multiple packages may be used to fill orders for these quantities.





OKRA				
Priced per package		4 oz.		
Priced per pound in these package sizes		1#		5#
33003U	Dwarf Long Green Pod <small>Untreated</small>	5.90	9.05	8.80



RED CANYON **NEW** pg. 67

# ONIONS

## PLANTING

Onions are mostly direct seeded in the field, although some are transplanted as seedlings or sets. Transplants are sometimes used to improve bulb size, as well as to hasten maturity, or to avoid infection by some plant diseases, but this method of crop establishment is more expensive. Planting occurs from late March through early May. Between-row spacing varies considerably depending upon weed and foliar disease management, seeder capability, and harvesting equipment. In-row spacing also varies depending upon variety, desired bulb size, between row spacing, soil type, and other management considerations.

**Bunching Onions** - Direct seed in spring when the soil reaches 50°F. Plant seed ¼" deep and approximately ½" apart.

**Bulb Onions/Short Day** - Typically short day onions are direct seeded in the southern region of the United States. In order to grow short day onions in the northern region of the United States the seed has to be sown in greenhouses and then transplanted into the field. Use pelleted seed if direct seeding to help achieve better singulation.

**Bulb Onions/Intermediate Day** - Direct seed intermediate day onions as soon as soil allows in April or early May. Sow seed 2" apart and thin to 3 - 4" apart for larger onions. Seeding depth should be approximately ¼" deep. If

transplanting seed in flats in late February to mid March, tops may be clipped to 5" tall. Use pelleted seed if direct seeding to help achieve better singulation.

**Bulb Onions/Long Day** - Direct seed long day onions as soon as soil allows in April or early May. Sow seed 2" apart and thin to 3 - 4" apart for larger onions. Seeding depth should be approximately ¼" deep. If transplanting seed in flats in late February to mid March, tops may be clipped to 5" tall. Use pelleted seed if direct seeding to help achieve better singulation. Plant long day onions in the northern latitudes.

*See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.*

## MANAGEMENT

Keep onions well weeded with shallow cultivation. Onions are shallow rooted and grow best in moist soil; irrigation may be required. Keep direct seeded onions away from onion sets because onion sets are more prone to disease. Long day onions should be planted in northern latitudes because of daylight requirements for bulbing.

## HARVEST

Onions are ready to harvest when tops approximately have 50 - 75% fallen over and the skins have dried. Pull the bulbs by hand or use equipment such as a potato digger or under-cutter to cut the roots and lift the bulbs. Wait until all the leaves are dead and dry. It is likely the outer skins will loosen. Pulling onions too green will make them difficult to cure and will affect storing them. Harvest when the weather is dry.

## STORAGE

Cure onions at 65 - 85°F at 70% humidity. Curing decreases the incidence of neck rot, reduces water loss during storage, prevents microbial infection, and is desirable for development of good scale color. Curing can be done in the field, preferably when the weather is warm and dry. If it rains let them dry fully before handling. A greenhouse or hoophouse also provides good conditions for curing. Temperatures in the 80's will enhance the bronze color in the skins. Sunshine is good as long as it is not too hot. Extreme sun can produce sunscald. Store onions out of the sun; exposure to light after curing will induce greening of outer scales. Optimum temperature for long term storage of onions is 32°F with 65 - 70% humidity. It is important to cool them down slowly. Using cool late summer and fall temperatures works great to cool onions down slowly.



CHIANTI



CANDY



GREAT WESTERN



GREAT WHITE



RED CANYON **NEW**

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SPANISH  
MEDALLION



GENESIS



RED DEFENDER



SV4643NT



ISHIKURA IMPROVED  
BUNCHING



RED BUNCHING

## ONIONS

Pricing on page 68

		Maturity	Color	Bulb Shape	Storage	Features
<b>Bulb Onions / Short Day</b>						
34046	<b>Chianti</b> <sup>F1</sup>	125	Red	Flattened Globe		Produces high yields under normal conditions. The red color moves inside as the bulb matures and the interior is red after curing.
<b>Bulb Onions / Intermediate Day</b>						
34020	<b>Candy</b> <sup>F1</sup>	100	Yellow	Globe	Short	A mild flavored Seminis onion that will perform well when plants are transplanted for extra large to jumbo sizes. Short term storage only.
34004	<b>Great Western</b> <sup>F1</sup>	110	Yellow	Globe	Short	Can be grown in all intermediate growing areas. Has good firmness with good skin retention. It will cut a high percentage of single centers and can be direct seeded or transplanted. This variety has strong plant growth with sizes that range from colossal to jumbo.
34021	<b>Great White</b> <sup>F1</sup>	103	White	Globe	Medium	Great yield potential for its maturity. Has attractive, luminescent white package with a high rate of single centers.
<b>NEW</b> 34016	<b>Red Canyon</b> <sup>F1</sup>	100	Red	Globe	Medium	Red Canyon is an early choice for intermediates. It has a solid and consistent globe shape and a bold red color. Dependable yields with a high percentage of single centers containing distinct red rings.
34039	<b>Spanish Medallion</b> <sup>F1</sup>	115	Yellow	Globe	Short	This Sweet Spanish type yellow onion is firm with excellent skin retention. It is globe to tall globe shape and jumbo to colossal in size. It is tolerant to pink root and fusarium basal rot.
<b>Bulb Onions / Long Day</b>						
34051	<b>Genesis</b> <sup>F1</sup>	100	Yellow	Globe	Medium	An early maturing hybrid that produces uniform globe shaped bulbs with golden brown coloring. Boasts good tolerance to both pink root and fusarium.
34045	<b>Red Defender</b> <sup>F1</sup>	125	Red	Globe	Long	Very dark red interior and exterior with uniform bulbs. Good for transplanting.
34000	<b>SV4643NT</b> <sup>F1</sup>	112	Red	Flattened Globe	Long	Bold red colored variety with excellent yield potential. Has both superb interior and exterior color. Stores very well.
<b>Bunching Onions</b>						
34510	<b>Ishikura Improved Bunching</b>	120	White			A Tokyo Long type with fancy, lengthy, white stalks. A good shipper.
34036	<b>Red Bunching</b> <sup>F1</sup> <small>DPS 3047</small>	55	Red			A red skinned, white fleshed bunching onion with an attractive deep color. This onion makes a striking presentation in the market.





COLORED  
UPRIGHTS



MIXED COLORS

**Natural**

#### VEGETABLE ROOT INOCULANT

Natural™ for Vegetables contains proprietary and patent pending biologicals that colonize the root system of plants. Crop stress such as disease and dry weather can be alleviated, and often systemically, so that root colonization by this treatment can affect the physiology of the whole plant resulting in higher yields. See page 125 for application rates and pricing.

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ORNAMENTAL		SORGHUM / BROOMCORN	
		Days	Features
05534	<b>Colored Uprights</b>	120	A colored sorghum with colors similar to Mixed Colors broomcorn but much more compact heads and shorter broom fiber. Colors are intense and vibrant. Very useful ingredient for the floral industry in arrangements and bouquets. Seeds hold well in heads.
05513	<b>Mixed Colors</b>	120	Similar to our other broomcorn but having mixed broom colors of black, red, purple, brown and yellow.

ONIONS		Descriptions on page 67. M=1,000 seeds		
	Priced per 1,000 seeds in these package sizes	5M	25M	100M
34020	<b>Candy</b> <sup>F300</sup>	4.60	3.80	2.80
34020P	<b>Candy</b> <sup>F300 Pelleted</sup>	5.30	4.40	3.25
34046P	<b>Chianti</b> <sup>F300 Pelleted</sup>	8.10	6.75	5.00
34051U	<b>Genesis</b> <sup>Untreated</sup>	3.40	2.80	2.05
34004	<b>Great Western</b>	5.55	4.60	3.40
34021P	<b>Great White</b> <sup>F300 Pelleted</sup>	7.75	6.45	4.75
34036	<b>Red Bunching</b> <sup>DPS 3047</sup>	7.10	5.90	4.35
34016P	<b>Red Canyon</b> <sup>F300 Pelleted</sup>	7.10	5.90	4.35
34045	<b>Red Defender</b>	4.50	3.75	2.75
34039	<b>Spanish Medallion</b> <sup>F300</sup>	5.40	4.50	3.30
34000	<b>SV4643NT</b> <sup>F300</sup>	6.20	5.15	3.80
Priced per package		1 oz.	4 oz.	1#
34510	<b>Ishikura Improved Bunching</b>	5.40	14.30	35.70

ORNAMENTAL SORGHUM / BROOMCORN				
	Priced per package	4 oz.		
	Priced per pound in these package sizes		1#	5#
05534U	<b>Colored Uprights</b> <sup>Untreated</sup>	10.70	30.65	28.90
05513U	<b>Mixed Colors</b> <sup>Untreated</sup>	10.70	30.65	28.90

### FarMore® F300 Onion

FarMore F300, an advanced fungicide seed treatment technology, delivers protection for a variety of small-seeded vegetable crops against a broad spectrum of seed and seedling diseases. With the active ingredients mefenoxam (Apron XL), fludioxonil (Maxim 4FS) and azoxystrobin (Dynasty), FarMore F300 enhances seedling emergence, plant stand establishment, plant health, early-season vigor and yield potential. [www.ruppseeds.com/f300](http://www.ruppseeds.com/f300)



FarMore® treated items are highlighted in green in the price tables.

Look for this symbol in the product description tables marking FarMore treated items.



#### SAVE WITH CASH DISCOUNTS

Cash discounts are available throughout the season and are a great way to add money to your bottom line.  
See page 6 for all of the details.

December.....	6%
January.....	5%
February.....	4%
March.....	3%
April.....	2%

PARSLEY			
		Days	Features
35012	<b>Gigante d'Italia</b>	75	A plain, dark green, large leaf sized variety; very aromatic and high yielding with multiple cuts.

PARSNIPS			
		Days	Features
36005	<b>Javelin</b> <sup>F1</sup>	110	A hybrid developed in Europe for the pre-pack market with high marketable yield in the desired size range. Roots have level crowns and wash easily. Superior quality and marketability vs. OP varieties.

PARSLEY					
Priced per package		1 oz.	4 oz.		
Priced per pound in these package sizes				1#	5#
35012	<b>Gigante d'Italia</b>	4.65	6.45	18.30	16.30

PARSNIPS		M=1,000 seeds			
Priced per 1,000 seeds in these package sizes		5M	50M	100M	500M
36005P	<b>Javelin</b> <sup>Primed, Pelleted</sup>	5.10	4.55	4.30	3.95



PLS595  pg. 71

 Purpure Seeds, Inc.

# PEAS

## PLANTING

Direct seed 1½" - 2" deep in soils that are at least 40° F. Plant in rows that are 30" - 36" apart and 1" - 2" between the plants.

See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## MANAGEMENT

Scout field for insect, weed, and disease pressure.

## HARVEST

Harvest peas when ripe. In shelling peas, pods should be filled out and able to feel individual peas. Pea pods should be harvested before seed develops inside the pod.

## STORAGE

After harvest store peas at 50 - 60°F with 95% humidity to ensure quality.

## DISEASE CODES

MV - Enation Mosaic Virus  
F - Fusarium  
NW - Near Wilt  
PM - Powdery Mildew  
RR - Root Rot  
W - Common Wilt Race 1  
WP - Western Pea Streak Virus  
YM - Bean Yellow Mosaic



**VEGETABLE ROOT INOCULANT**

Naturall™ for Vegetables contains proprietary and patent pending biologicals that colonize the root system of plants. Crop stress such as disease and dry weather can be alleviated, and often systemically, so that root colonization by this treatment can affect the physiology of the whole plant resulting in higher yields. See page 125 for application rates and pricing.

PEAS							
	▲	Days	Height	Pod Length	Peas per Pod	Disease	Features
<i>Fresh Market</i>							
12033	<b>Legacy</b>	67	26"	3 ½"	7 - 9	F, PM	<i>A Bolero replacement, one day earlier with resistance to Powdery Mildew.</i>
12003	<b>Maestro</b>	61	18"	4"	9	MV, PM, W, YM	<i>Heavy crops, very disease resistant.</i>
12008	<b>PLS595</b>	67	30"	3.6"	9 - 10	F, PM	<i>Fresh market or processor. High yields. Great taste.</i>
12035	<b>Sabre</b>	65	24"	3 ½"	9 - 10	F, RR, PM	<i>Sabre is a normal vine type with long pods. The dark green berries produce wonderful yields of frozen, canned or fresh product.</i>

PEAS		SNOW PEA Flat Oriental	
	▲	Days	Features
12102	<b>Oregon Sugar Pod II</b>	68	<i>30" vine with 4" pods, disease resistant.</i>

PEAS		SUGAR SNAP	
	▲	Days	Features
12206	<b>Cascadia</b>	67	<i>A snap pea with unusually thick pod walls on a 30" vine. Pods remain tender and sweeter longer than other cultivars. Flavor improves until seeds are over mature. Has outstanding disease tolerance, eating quality and yielding ability.</i>
12201	<b>Sugar Ann</b>	60	<i>Earliest and shortest snap pea. 18" vine. Can be shelled.</i>
12209	<b>Sugar Sprint</b>	62	<i>A variety from Syngenta which replaces Sugar Ann. Has resistance to powdery mildew and tolerant to Pea Enation Mosaic Virus. 3" sweet and stringless pods with a plant height of 26".</i>

PEAS		Priced per pound in these package sizes				
		1#	5#	25#	50#*	500#*
12033	<b>Legacy</b>	5.60	3.70	3.45	3.20	3.10
12003	<b>Maestro</b>	5.45	3.60	3.35	3.10	3.00
12008	<b>PLS595</b>	5.70	3.75	3.50	3.25	3.15
12035	<b>Sabre</b>	5.60	3.70	3.45	3.20	3.10

\* Multiple packages may be used to fill orders for these quantities.

PEAS SNOW PEA		Priced per pound in these package sizes				
		1#	5#	25#	50#*	500#*
12102	<b>Oregon Sugar Pod II</b>	5.45	3.60	3.35	3.10	3.00

\* Multiple packages may be used to fill orders for these quantities.

PEAS SUGAR SNAP		Priced per pound in these package sizes				
		1#	5#	25#	50#*	500#*
12206	<b>Cascadia</b>	5.45	3.60	3.35	3.10	3.00
12201	<b>Sugar Ann</b>	6.05	4.00	3.75	3.50	3.40
12209	<b>Sugar Sprint</b>	7.10	4.70	4.45	4.20	4.10

\* Multiple packages may be used to fill orders for these quantities.



SAILFISH **NEW** pg. 73

# PEPPERS

## PLANTING

Sow in the greenhouse 7 - 9 weeks before desired planting date. Allow plants to harden 7 days before transplanting. Plant transplants halfway between rootball and bottom leaves. This will help prevent lodging.

See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## MANAGEMENT

Scout every 7 days to ensure crop development. Consult the Midwest Vegetable Production Guide:

[www.ruppseeds.com/MVPG](http://www.ruppseeds.com/MVPG) or your local extension agent for identification and treatments.

## HARVEST

Cut or break pepper off the plant but leave at least 1" of the stem attached to the pepper.

## STORAGE

Clean and wax peppers. Pre-cool at 45°F. Store at 45 - 50°F with 90 - 95% humidity; this will ensure the longest shelf life.

## DISEASE CODES

BLS - Bacterial Leaf Spot  
CMV - Cucumber Mosaic Virus  
PHY - Phytophthora Root Rot  
PMV - Pepper Mottle Virus  
PVY - Potato Virus Y  
S - Stip  
TEV - Tobacco Etch Virus  
TMV - Tobacco Mosaic Virus  
TSW - Tomato Spotted Wilt

## USE RECOMMENDATIONS

FM - Fresh Market  
P - Processing  
PP - Place Pack



ARISTOTLE X3R® ★



BAYONET



MERCER NEW



NITRO X10R NEW



OUTSIDER



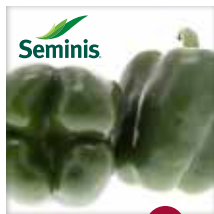
PS09941819 XSR® ★



SAILFISH X10R® NEW



SPRINTER



TARPON X10R® NEW



TURNPIKE XSR® ★

#### CASH DISCOUNTS

Cash discounts are a great way to add to your bottom line. See page 6 for details.

PEPPERS		BELL GREEN TO RED Hybrid				Pricing on page 74
		Days	Flesh	Disease	Use	Features
★	37125 Aristotle X3R™	72	Thick	BLS <sup>1,2,3</sup> , PVY, TMV	FM	A Seminis hybrid with heavy set, thick walls, excellent disease protection and enormous fruit size. 3 - 4 lobed. The industry standard.
	37001 Bayonet	72	Thick	BLS <sup>1,2,3,4,5,7,8,9</sup> , PHY, TMV	FM, PP	A Syngenta hybrid with large blocky fruit. Excellent fruit color, fruit firmness, shoulder appearance, fruit uniformity and wall thickness. High yield potential.
NEW	37065 Mercer	72	Thick	BLS <sup>0,3,7,8</sup> , TMV, PHY	FM, PP, P	Mercer is a widely adapted green-to-red bell pepper well suited for the North Eastern U.S. growing regions. The maturity is mid-early, with high yields of extra-large fruit with good quality. Plants are vigorous, sturdy, have good cover and have high yield potential. The fruit are firm, dark green and mature to a very attractive deep red color.
NEW	37041 Nitro S10 with X10R	75	Thick	BLS <sup>0-10</sup> , PHY, TSW,	FM, PP	Nitro S10® is a high quality, mid maturing hybrid suited for place pack. It is adapted to summer production in the northeast and suited for production where bacterial leaf spot is a concern. The fruit have good size uniformity and are smooth, firm, glossy dark green and mature to red color. Nitro S10 benefits from a nutritional management program that helps build a productive plant.
	37036 Outsider	Early	Thick	BLS <sup>1-10</sup> , TSW,	FM, PP	Outsider is the "box-filling pepper" that delivers great yield and quality. Produces early concentrated sets of jumbo and XL fruit. Strong disease and virus resistance package.
★	37161 PS 09941819 with XSR	75	Thick	BLS <sup>1,2,3,4,5</sup> , PHY	FM	The largest sized pepper we carry. Produces a continuous set of large to extra-large, 3 and 4 lobed fruits on a small to medium sized plant. Fruits are anthocyaninless and appear to have good field tolerance for epidermal separation.
	37119 Red Knight X3R™	63	Thick	BLS <sup>1,2,3</sup> , PVY	P	A Seminis medium to large blocky hybrid. Early to red, like North Star, with resistance to BLS races 1, 2 and 3.
NEW	37046 Sailfish with X10R	Early	Thick	BLS <sup>0-10</sup> , PHY, TMV	Fm, P	An early red bell pepper for fresh market, with high-quality, blocky smooth fruit, and excellent red color.
	37014 Sprinter	Early	Medium Thick	TMV <sup>0-3</sup>	FM, PP	Produces quality yields of uniform fruit over a long harvest window. Compact plants. It sets fruit well under row cover. Strong against blossom-end rot and russetting. Turns red early.
NEW	37042 Tarpon with X10R	Main	Thick	BLS <sup>0-10</sup> , PHY, TMV	FM, PP	Tarpon is a main-season hybrid with X10R® technology and intermediate resistance to Phytophthora blight for the northeast and midwest United States and eastern Canada. Tarpon has a compact plant and produces dark green, smooth blocky fruits.
★	37023 Turnpike with XSR	72	Thick	BLS <sup>1,2,3,4,5,7,9</sup> , PHY, TMV	FM	Extra large sized fruit with massively thick walls. Provides industry leading potential for yield.

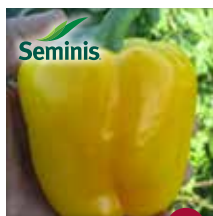




ABAY



DICAPRIO



SVPB8415 X10R



CHOCOLATE  
BEAUTY



DELIRIO



MILENA



CORNITO ROSSO



CORNITO GIALLO



ORANOS



SWEETIE ORANGE



SWEETIE RED



SWEETIE YELLOW

PEPPERS		BELL YELLOW Hybrid				
		Days	Flesh	Disease	Use	Features
37015	<b>Abay</b>	80	Medium Thick	BLS <sup>1-5</sup>	FM	Offers strong bacterial leaf spot resistance. Very strong plant with high yield potential. Outstanding coloration. Excellent firmness and fruit quality. Continuous setting.
37034	<b>Dicaprio</b>	80	Medium Thick	TMV <sup>0-3</sup> , TSW	FM	Good variety for high tunnels or unheated greenhouses from Enza Zaden.
37108	<b>Early Sunsation X3R</b>	70	Thick	BLS <sup>1,2,3</sup> , PVY, TMV	FM	A Seminis hybrid with Bacterial Leaf Spot 1, 2 and 3 resistance. Is early with dark green blocky fruit turning golden and sweet at maturity. Maintains firmness in mature stage and has heat setting ability.
37045	<b>SVPB8415</b> X10R	73 Green / 83 Yellow	Thick	BLS <sup>1,2,3</sup> , PVY, TMV	FM	Offers fast color change from green to yellow. Very adaptable across many growing conditions in the eastern U.S.

PEPPERS BELL GREEN TO RED Hybrid							M=1,000 seeds
Priced per package		100 Seeds	500 Seeds				
Priced per 1,000 seeds in these package sizes				1M	5M	25M	50M
37169	<b>Archimedes</b> F300	14.65	64.75	92.45	85.60	81.50	78.35
37125	<b>Aristotle X3R™</b> F300	15.85	70.10	100.10	92.65	88.20	84.80
37125P	<b>Aristotle X3R™</b> F300 Pelleted	16.10	71.05	101.45	93.90	89.40	85.95
37001	<b>Bayonet</b>	9.80	43.30	61.85	57.25	54.50	52.40
37065	<b>Mercer</b> F300	15.10	66.70	95.25	88.15	83.95	80.70
37041	<b>Nitro S10</b> F300	16.45	72.60	103.70	96.00	91.40	87.85
37024	<b>North Star</b>	10.60	46.70	66.65	61.70	58.75	56.45
37036	<b>Outsider</b>	14.70	64.85	92.60	85.70	81.60	78.45
37161P	<b>PS 09941819</b> with X5R F300 Pelleted	16.85	74.50	106.40	98.50	93.80	90.15
37119	<b>Red Knight X3R™</b>	11.80	52.00	74.25	68.75	65.45	62.90
37046	<b>Sailfish</b> with X10R	17.10	75.50	107.85	99.85	95.05	91.35
37014	<b>Sprinter</b>	49.80	220.30	314.65	291.30	277.40	266.70
37042P	<b>Tarpon</b> with X10R F300 Pelleted	17.60	77.75	111.05	102.80	97.90	94.10
37023	<b>Turnpike X5R™</b>	16.85	74.45	106.30	98.40	93.70	90.05

\* Multiple packages may be used to fill orders for these quantities.

PEPPERS BELL YELLOW Hybrid							M=1,000 seeds
Priced per package		100 Seeds	500 Seeds				
Priced per 1,000 seeds in these package sizes				1M	5M	25M	50M
37015	<b>Abay</b>	15.05	66.45	94.90	87.85	83.65	80.40
37034	<b>Dicaprio</b>	73.65	325.85	465.45	430.95	410.40	394.60
37108	<b>Early Sunsation X3R</b>	11.55	51.10	73.00	67.55	64.30	61.80
37045	<b>SVPB8415 X10R</b>	17.45	77.15	110.20	102.00	97.10	93.35

\* Multiple packages may be used to fill orders for these quantities.

PEPPERS BELL OTHER COLORS Hybrid							M=1,000 seeds
Priced per package		100 Seeds	500 Seeds				
Priced per 1,000 seeds in these package sizes				1M	5M	25M	50M
37083	<b>Bianca</b>	18.15	80.10	114.40	105.90	100.85	96.95
37029	<b>Chocolate Beauty</b>	9.60	42.35	60.45	55.95	53.25	51.20
37090	<b>Delirio</b>	16.25	71.75	102.45	94.85	90.30	86.80
37013	<b>Milena</b>	50.55	223.65	319.50	295.80	281.70	270.85
37088	<b>Tequila</b>	18.50	81.70	116.65	108.00	102.85	98.85

\* Multiple packages may be used to fill orders for these quantities.



YELLOW SPARKLER

**Natural<sup>ll</sup>**

Enhance root growth and increase seedling vigor for healthier plants and higher yields with Natural<sup>ll</sup>™ for Vegetables.

See page 125 for rates and pricing.

PEPPERS		BELL OTHER COLORS Hybrid				
▲		Days	Flesh		Disease	Use Features
37083	<b>Bianca</b>	66	Thick		TMV <sup>0</sup>	FM <i>Bianca means white in Italian. Larger and whiter than competitive varieties. Very early and slow coloring from white to light red. 3 - 4 lobe.</i>
37029	<b>Chocolate Beauty</b>	67	Thick		TMV <sup>0</sup>	FM <i>Three to four lobed beautiful brown colored fruit that adds an additional color dimension to the farm stand bell pepper display.</i>
37090	<b>Delirio</b>	68	Thick		TMV <sup>0</sup>	FM, PP <i>An early maturing, medium to large blocky, dark green to vivid bright orange, sweet bell pepper. Good holding quality.</i>
37013	<b>Milena</b>	Early	Thick		PVY, TMV <sup>0-3</sup> , TSW	FM, PP <i>Thick walls and uniform 3-4 lobed fruit. Peppers average ½ lb and 3" x 4" in size. Vigorous open plant habit with good yield and solid set, even under hot conditions. Plants average 28" tall and are upright and sturdy. Works well in the greenhouse, unheated tunnels or open field. Strong disease package.</i>
37088	<b>Tequila</b>	68	Thick		TMV <sup>0</sup>	FM <i>Larger and better quality than its other lilac competitors. Matures from lilac to a medium red color. 3 - 4 lobe.</i>

PEPPERS		MISCELLANEOUS SWEET Hybrid					Pricing on page 76
▲		Days	Flesh	Color	Shape	Disease	Features
<i>Super Sweet Cones</i>							
	37198	<b>Cornito Rosso</b>	80	Red	1 ½ x 5"		<i>A half-size Corno di Toro type pepper. Very early and attractive. Grow and sell them individually, or as mixed colors, loose or in a clamshell.</i>
	37195	<b>Cornito Giallo</b>	80	Yellow	1 ½ x 5"		<i>Exceptionally sweet and attractive. Half-size corno di toro. Perfect for grilling and roasting. An AAS winner.</i>
	37174	<b>Oranos</b>	70	Medium	Orange	1 ½ x 7"	TMV <sup>0</sup> <i>The most outstanding orange conical hybrid available! A very early variety that produces vigorous plants with fruit that are especially appreciated for their unique flavor and product presentation. Sets well in the heat.</i>
	37179	<b>Conical Blend</b>	70	Medium	Red, Orange, Yellow	1 ½ x 8"	<i>A multi-colored blend of the three conical peppers listed above. Only available in 100 seed packs.</i>
<i>Miniature Sweet Cones - Snack Peppers</i>							
	37190	<b>Sweetie Orange</b>	70 from transplant	Thick	Orange	2 ½ - 3" long	<i>These peppers are extremely sweet and the perfect size for snacking. Uniform fruit feature an open seed cavity. They grow great in both open field and protected culture.</i>
	37194	<b>Sweetie Purple</b>	70 from transplant	Thick	Purple	2 ½ - 3" long	
	37191	<b>Sweetie Red</b>	70 from transplant	Thick	Red	2 ½ - 3" long	
	37192	<b>Sweetie Yellow</b>	70 from transplant	Thick	Yellow	2 ½ - 3" long	
	37193	<b>Sweetie Blend</b>	70 from transplant	Thick	Orange, Purple, Red, Yellow	2 ½ - 3" long	<i>A multi-colored blend of the four Sweetie Peppers. Only available in 100 seed packs.</i>
	37176	<b>Yellow Sparkler</b>	70	Medium	Yellow	1 x 3"	TMV <sup>0</sup> <i>Sweet mini "snack" pepper with fantastic flavor. Two lobed fruit with very few seeds. Performs well in low to mid-tech protected culture as well as open field.</i>



LOLA



SV3782PP X3R® ★



#### SAVE WITH CASH DISCOUNTS

Cash discounts are available throughout the season and are a great way to add money to your bottom line.  
See page 6 for all of the details.

December.....	6%
January.....	5%
February.....	4%
March.....	3%
April.....	2%

## PEPPERS

## MISCELLANEOUS Hybrid

		Days	Flesh	Color	Disease	Features
Banana						
37038	<b>Lola</b>	60 - 65	Thick	Light Green to Red	BLS <sup>0,3,7,8</sup> , TSWV	Widely adapted variety well suited where bacterial leaf spot or TSWV are a concern. High yield potential of large and extra-large fruit. Plants are medium strong and vigorous with good cover.
★ 37082	<b>SV3782PP X3R®</b>	70	Thick	Light Yellow to Red	BLS <sup>0,3,7,8</sup>	AKA Sweet Sunset, this variety has won the AAS. Used for 2nd early in the processing industry.

## PEPPERS MISCELLANEOUS SWEET Hybrid

M=1,000 seeds

	Priced per package Priced per 1,000 seeds in these package sizes	100	500				
		Seeds	Seeds	1M	5M	25M	50M
Super Sweet Cones							
37198	Cornito Rosso	13.20	58.40	83.40	77.20	73.50	70.65
37195	Cornito Giallo	13.20	58.40	83.40	77.20	73.50	70.65
37174	Oranos	37.50	165.80	236.85	219.30	208.85	200.80
37179	Conical Blend	24.70					
Miniature Sweet Cones - Snack Peppers							
37190	Sweetie Orange	28.05	124.05	177.20	164.05	156.20	150.15
37194	Sweetie Purple	30.90	136.65	195.20	180.70	172.05	165.40
37191	Sweetie Red	28.05	124.05	177.20	164.05	156.20	150.15
37192	Sweetie Yellow	28.05	124.05	177.20	164.05	156.20	150.15
37193	Sweetie Blend						
	Orange, Purple, Red, Yellow	31.50					
37176	Yellow Sparkler	12.75	56.40	80.55	74.55	71.00	68.25
Hungarian Cheese							
37181	Orange You Sweet	9.70					
37182	Right on Red	9.70	42.75	61.05			
37183	Yes to Yellow!	9.70	42.75	61.05			
Miniature Bell							
37105	Baby Block Yellow	17.90	79.10	113.00	104.60	99.60	95.75
* Multiple packages may be used to fill orders for these quantities.							

\* Multiple packages may be used to fill orders for these quantities.

## PEPPERS MISCELLANEOUS Hybrid

M=1,000 seeds

	Priced per package	100 Seeds	500 Seeds				
	Priced per 1,000 seeds in these package sizes			1M	5M	25M	50M
	Banana						
37038	<b>Lola</b>	11.30	49.95	71.30	66.00	62.85	60.40
37166	<b>Sopron</b> <sup>F300</sup>	10.45	46.15	65.90	61.00	58.05	55.80
37082	<b>SV3782PP X3R*</b>	11.90	52.60	75.10	69.50	66.15	63.60
* Multiple packages may be used to fill orders for these quantities.							

\* Multiple packages may be used to fill orders for these quantities.

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## GROWER PREFERRED ALL-STARS ★ PEPPERS

### GREEN TO RED BELLS

**Aristotle X3R\*** is the best overall performer with a consistent early set of large sized fruit. A favorite with many growers – a real money-maker!

If you are concerned about Phytophthora pressure, consider using **Turnpike X5R\***. It has one of the strongest tolerances of any bell pepper that we carry and the fruit quality is exceptional. It also provides the grower with X5R bacterial leaf spot resistance.

**PS09941819 X5R\*** is the one for you if your customers are looking for a jumbo sized bell! It also has a very dark green color and X5R Bacterial Leaf Spot resistance.

### OTHER COLORED BELLS

**SVPB8415** is a new yellow X10R bell pepper from Seminis that you need to try for your colored bell pepper mix. It turns from green to yellow quickly and has very high quality large size fruit.

### SWEET BANANAS

**SV3782PP X3R\*** has fruit quality similar to Ethem but it also has resistance to bacterial spot races 0-3, 7 and 8. Fruits are 8" x 1 1/2" and very smooth.

### ANCHO / POBLANO

**Tiburon** has the quality your customers expect in this category. Pungency levels are milder and will work very well in Mexican dishes. Tiburon is a poblano (turns red).

### JALAPEÑO

**Mammoth** is the jalapeno you are looking for if you want consistent large fruit size and medium heat levels. Mammoth has a continuous fruit set so you can expect very good yields throughout the growing season.



*Dave Silveus*  
Vegetable Consultant

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MAMMOTH ★ pg. 81

# HOT PEPPER TYPES

## ANAHEIM

(Hatch - New Mexican) chili. Fruit are from 4 - 12" long and 2" wide, green to red at maturity, but also may be yellow, orange to brown. Many different varieties abound. Range from sweet to hot. Use green as fresh, canned or frozen. Mature are usually dried and ground into chili powder or paprika if sweet. Also used in salsas.

## ANCHO

(Poblano) The fruit are heart shaped, pointed, thin walled with an indented stem attachment. Immature fruit are dark green with mature fruit being either red or brown. Fruit are 3 - 4" long and about 2" wide and are mildly pungent. The pepper of choice to make chili rellenos.

## CAYENNE

Mature red fruit are 5 - 10" long and wrinkled. Irregular in shape, highly pungent, often used as dried, ground powder. Also used fresh in salads, sauces and dishes.

## CHERRY

Like the name suggests, round or slightly flattened, green to red, hot or sweet. Similar use to wax pepper.

## CHINENSE

(Habanero-Scotch Bonnet- Bahamian-Jamaican) In this species, diversity is enormous. Popular in Jamaica, Yucatan and Brazil. Very, very hot and persistent, but aromatic. Fruit are 1 - 2½" long and 1 - 2" wide. Green to variable mature colors of yellow, orange, red or white. Use dried as a spice, fresh or processed. Plant starts slower than most other pepper types.

## GHOST

Subconical to conical shape measuring 2.5 to 3.5 inches in length. Approximately three times hotter than typical habaneros. Red is the most common color at maturity, with orange, yellow and chocolate as rarer varieties.

## JALAPEÑO

Fruit are thick walled, conical shaped, dark green when immature turning red at maturity and most cultivars are highly pungent. Fruit may show cracking or corkiness which is a desirable trait in Mexico. Length vary widely. Use canned, pickled, salsas or fresh. When dried, by smoking, they are called chipotle.

## ORNAMENTALS

Peppers classified as ornamentals do not carry a characteristic that makes them in-edible. They are individuals from the many groups previously listed that happen to have leaves and fruit that are particularly attractive and give them ornamental value.

## PASILLA

Pod length is 6 - 12" long and 1 - 2" wide. Fruit color is dark green, turning brown at maturity. Usually dried before use in moles and salsas.

## RED CHILI

Fruit are 2½" long by ½" wide, green when immature changing to red at maturity. Fruit have thin walls, taper to a point and are used for drying, processing and sauce. Hot!

## SERRANO

Fruit are ½" wide and 2 - 3" long. Medium walls and shaped similar to Jalapeño and is the pepper of choice in Salsa Verde and other southwestern relishes.

## THAI HOT

Green fruit to red at maturity, very hot, tiny 3/8" wide by 1" long fruit. Popular in oriental markets.

## WAX

Yellow when immature, orange-red at maturity. Can be pungent or non-pungent. Vary from 2 - 8" long and about 2" wide. Use pickled or fresh in salads and relishes.



CHARGER



SPITFIRE



CARRANZA



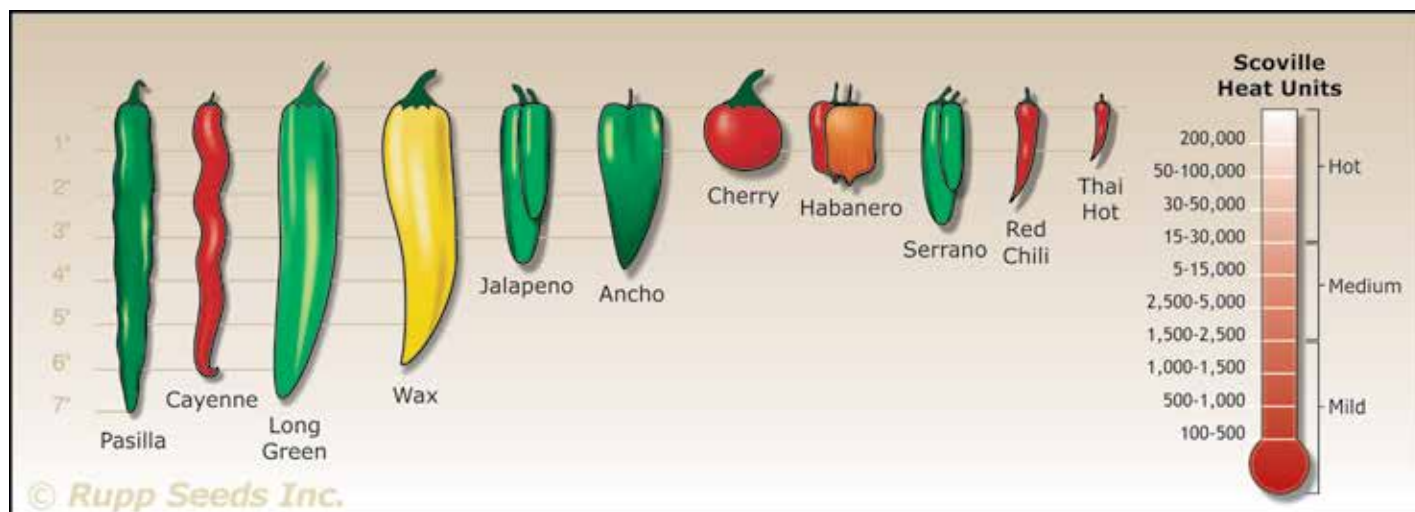
TIBURON★



TRIDENT



ARAPAHO



PEPPERS		HOT Hybrid		Pricing on pages 80 & 82				
		Days	Flesh	Color	Relative Scoville Rating	Disease	Use	Features
<b>Anaheim</b>								
37412	<b>Charger</b>	75	Thick	Green to Deep Red	1,000 to 2,000	TSW	FM	The leader in Anaheims with large, smooth, two lobed fruit. Vigorous, erect plant with excellent foliage cover protecting the fruit.
37462	<b>Spitfire</b>			Green to Red	90 to 130	PHY	FM	Only known Anaheim hybrid with phytophthora resistance. Large fruit size.
<b>Ancho</b>								
37463	<b>Carranza</b>			Dark Green to Red	200 to 300		FM	Selected for its performance in heat. Main use is for fresh when green and dried when red.
★ 37455	<b>Tiburon</b>	73	Thick	Very Dark Green to Red	250 to 1,500		FM	A true poblano producing excellent yields of extra large fruit for stuffing (chile rellenos) or drying; continuous fruit set.
37425	<b>Trident</b>	80 - 85	Thick	Very Dark Green to Red	250 to 1,500	TMV	FM	Extra-large glossy fruit. Suited for multiple harvests where it has the ability to maintain fruit size. The fruit are mid-long tapering, firm, straight and have a high percentage of two lobes. Has a good dry weight ratio and is well suited for the fresh and drying market.
<b>Cayenne</b>								
37458	<b>Arapaho</b> <small>Cheyenne</small>	70	Thick	Light Green to Red	2,000 to 4,000		FM, P	A cayenne with large, long, narrow fruit. Produces high yields of early maturing fruit; compact plant. Medium pungency.

Additional Hot Peppers can be found on the next page --->.





BOMBITA



TIME BOMB



KABAL



REY PAKAL



BLAZING BANANA



MAMMOTH★

## PEPPERS

HOT Hybrid

Pricing on pages 80 & 82

		Days	Flesh	Color	Relative Scoville Rating	Disease	Use	Features
<b>Hot Cherry</b>								
37467	<b>Bombita</b>	68		Green to Red	-	-	FM, P	Bombita is the perfect shape, 1.25-1.5" average, for pickling, stuffing and processing. Great tasting and easy to pick.
37417	<b>Time Bomb</b>	65		Green to Red	1,000	TMV	FM, P	Produces red, hot cherry peppers with a light smoky flavor. Fruit is 1.6 x 1.6". Has light heat and are great pickled, processed or chopped into salsas.
<b>Habanero</b>								
37423	<b>Kabal</b>	95	Thin	Green to Orange	300,000		FM	High yielding variety with a vigorous, healthy plant that has a continuous set throughout harvest. Fruit average 1.5 - 2 inches in length with typical habanero shape.
37432	<b>Rey Pakal</b>	135	Thin	Green to Red	200,000	CMV	FM	Vigorous plant that provides for prolonged, high yielding harvests. Demonstrates the ability to reach full maturity with exposure to less than optimal heat units.
<b>Hot Wax</b>								
37422	<b>Blazing Banana</b>	60 - 70	Thick	Yellow to Red	6,000 to 6,500	BLS <sup>1,2,3</sup>	FM, P	Outstanding early maturing variety that displays a strong branched plant with excellent fruit coverage. Fruit size of 9 x 1.75 - 2".

## PEPPERS HOT Hybrid

M=1,000 seeds

		100 Seeds	500 Seeds				
	Priced per package						
	Priced per 1,000 seeds in these package sizes			1M	5M	25M	50M
Anaheim							
37412	<b>Charger</b>	13.65	60.35	86.15	79.75	75.95	73.00
37462	<b>Spitfire</b>	10.70	47.25	67.45	62.45	59.45	57.15
Ancho							
37463	<b>Carranza</b>	9.70	42.70	61.00	56.45	53.75	51.65
37455	<b>Tiburón</b> <sup>F300</sup>	7.55	33.20	47.40	43.85	41.75	40.10
37425	<b>Trident</b> <sup>F300</sup>	10.20	44.95	64.20	59.40	56.55	54.35
Cayenne							
37458	<b>Arapaho</b> <sup>Cheyenne</sup>	10.35	45.75	65.35	60.50	57.60	55.35
Hot Cherry							
37467	<b>Bombita</b>	15.80	69.80	99.65	92.25	87.85	84.45
37417	<b>Time Bomb</b>	12.80	56.55	80.75	74.75	71.15	68.40
Habanero							
37423	<b>Kabal</b>	12.75	56.40	80.55	74.55	71.00	68.25
37432	<b>Rey Pakal</b>	12.75	56.40	80.55	74.55	71.00	68.25
37466	<b>Rey Kawiil</b> <sup>USAP 10074</sup>	12.75	56.40	80.55	74.55	71.00	68.25

## PEPPERS HOT Hybrid

M=1,000 seeds

	Priced per package  Priced per 1,000 seeds in these package sizes	100	500				
		Seeds	Seeds	1M	5M	25M	50M
		Hot Wax					
37422	Blazing Banana	11.20	49.50	70.65	65.40	62.25	59.85
Jalapeño							
37436	Ballpark	7.90	34.75	49.60	45.90	43.70	42.00
37460	Compadre	10.25	45.25	64.60	59.80	56.95	54.75
37450	El Jefe	6.80	30.00	42.80	39.60	37.70	36.25
37448	Mammoth	11.10	49.05	70.05	64.85	61.75	59.35
37451	Talon	10.05	44.25	63.20	58.50	55.70	53.55
37430	Tzotzil <sup>F300</sup>	10.30	45.55	65.05	60.20	57.30	55.05



TALON



TZOTZIL

PEPPERS		HOT Hybrid							Pricing on pages 80 & 82
		Days	Flesh	Color	Relative Scoville Rating	Disease	Use	Features	
Jalapeño									
★	37448 Mammoth	72	Very Thick	Dark Green	3,000 to 5,000	PVY, TMV	FM, P	Produces high quality, uniform, dark green fruit making it ideal for fresh and processing. Truly "mammoth" in size, this jumbo jalapeño is very adaptable for the most discerning markets. Superior yields complement its excellent fruit quality. Continuous set provides for extended harvest window.	
	37451 Talon	75-80	Thick	Dark Green to Red	3,500 to 6,000	BLS <sup>1,2,3</sup>	FM, P	Consistently produces high yields of fruit that are tolerant to anthocyanin and cracking. Vigorous plant. Very adaptable.	
	37430 Tzotzil	60	Very Thick	Dark Green to Red	750 to 1,000	BLS <sup>0,3,7,8</sup> , PHY	FM, P	Phytophthora tolerant version of PS 11435810. Fruit may be a little longer and slightly more narrow than the 5810.	

Additional Hot Peppers can be found on the next page --->.



BECAN



CRACKLE



POTOSI



TAKARA



FLAMETHROWER  
BLEND



FRESNO BLEND

## PEPPERS

HOT Hybrid

Pricing on pages 80 & 82

	Days	Flesh	Color	Relative Scoville Rating	Disease	Use	Features
<b>Miscellaneous Hot</b>							
37464 <b>Becan</b>			Pale Yellow to Red	800 - 1,000	PHY	FM	<i>Santa Fe Grande type hybrid which is used mainly for stuffing. Phytophthora tolerant conversion of Rio de Oro.</i>
37421 <b>Crackle</b>	65	Thin	Green to Red	1,500 to 3,000		FM	<i>"Finger Hot" type with length of 4 - 5 inches. Multiple harvests with fruit maintaining good size.</i>
37465 <b>Potosi</b>				4,000 to 4,500	BLS <sup>9-3,7,8</sup> , N, TMV	FM	<i>A hybrid Serrano type with large fruit size and classic shape. Very productive.</i>
37402 <b>Super Chili</b>	75	Thin	Green to Orange Red	40,000 to 50,000		FM, HG	<i>AAS winner. Early, very productive. Home garden. An excellent substitute for Asian cooking.</i>
37420 <b>Takara</b>	60	Thin	Bright Green to Bright Red	50 to 200		FM	<i>Typical shishito type pepper with small fruit and mild but rich flavor. The compact plant has a spreading habit, short internodes, is well branched and has high production potential. The fruit uniformity is superior to OP strains. The peduncle holds well to the fruit.</i>
<b>Specialty Hot Blends</b>							
37480 <b>Flamethrower Blend</b>		Thin	Brown, Orange, Pink, Red, White, Yellow	200,000		FM	<i>Diverse blend of six vividly colored habanero varieties. Give your customers color options for their hot, hot salsa!</i>
37470 <b>Fresno Blend</b>		Thin	Red, Orange, Yellow	5,000		FM	<i>Assorted mixture of three brightly colored fresno type varieties. Beautiful on the farm stand.</i>

## PEPPERS HOT Hybrid

M=1,000 seeds

	Priced per package	100 Seeds	500 Seeds				
	Priced per 1,000 seeds in these package sizes			1M	5M	25M	50M
<b>Miscellaneous Hot</b>							
37464 <b>Becan</b>	14.00	61.85	88.30	81.75	77.85	74.85	
37421 <b>Crackle</b>	7.70	33.85	48.35	44.75	42.60	40.95	
37465 <b>Potosi</b>	9.40	41.55	59.35	54.95	52.30	50.25	
37402 <b>Super Chili</b>	8.75	38.60	55.10	51.00	48.55	46.65	
37420 <b>Takara</b>	11.30	49.85	71.20	65.90	62.75	60.30	

## PEPPERS HOT Hybrid

M=1,000 seeds

	Priced per package	100 Seeds	500 Seeds				
	Priced per 1,000 seeds in these package sizes			1M	5M	25M	50M
<b>Specialty Hot Blends</b>							
37480 <b>Flamethrower Blend</b>	17.50	77.25	110.30	102.10	97.20	93.45	
37470 <b>Fresno Blend</b>	24.65	109.05	155.75	144.20	137.30	132.00	

\* Multiple packages may be used to fill orders for these quantities.



**Naturall**™ **VEGETABLE ROOT INOCULANT**  
 Naturall™ for Vegetables contains proprietary and patent pending biologicals that colonize the root system of plants. Crop stress such as disease and dry weather can be alleviated, and often systemically, so that root colonization by this treatment can affect the physiology of the whole plant resulting in higher yields. See page 125 for application rates and pricing.



#### SAVE WITH CASH DISCOUNTS

Cash discounts are available throughout the season and are a great way to add money to your bottom line.  
 See page 6 for all of the details.

December . . . . .6%  
 January . . . . .5%  
 February . . . . .4%  
 March . . . . .3%  
 April . . . . .2%

PEPPERS		HOT OP Heritage Varieties						
		Days	Flesh	Color	Class Type	Relative Scoville Rating	Use	Features
37507	<b>Cayenne Large Thick</b>	75	Medium Thick	Green to Red	Cayenne	30,000 to 50,000	P	<i>The commercial variety of the long thin pepper used as a dried ground powder.</i>
37502	<b>Cayenne Long Slim</b>	72	Thin	Green to Red	Cayenne	30,000 to 50,000	P	<i>Very productive, pungent, home garden variety.</i>
37501	<b>Hungarian Yellow Wax</b>	70	Medium Thick	Yellow to Red	Wax	750 to 3,000	FM, P	<i>Cylindrical fruit are 6 to 8" long x 1 ½ - 2" diameter fruit.</i>
37512	<b>Red Cherry</b> <small>Large</small>	75	Medium Thick	Medium Green to Red	Cherry	3,500	FM, P	<i>Processing, home garden, and pickling.</i>

PEPPERS HOT OP Heritage Varieties		M=1,000 seeds			
	Priced per package	1/2 oz	1 oz.	4 oz	1#
37502	<b>Cayenne Long Slim</b>	4.40	6.40	19.95	57.75
37501	<b>Hungarian Yellow Wax</b>	4.70	6.80	21.25	61.45
37512	<b>Red Cherry</b> <small>Large</small>	7.00	10.20	31.75	91.90

PEPPERS HOT OP Heritage Varieties				M=1,000 seeds		
	Priced per package	250 Seeds	500 Seeds			
	Priced per 1,000 seeds in these package sizes			1M	5M	50M
37507	<b>Cayenne Large Thick</b>	5.85	7.90	10.50	7.00	5.80
37515	<b>Pasillo Bajio</b>	6.30	8.55	11.40	7.60	
* Multiple packages may be used to fill orders for these quantities.						



YOSEMITE **NEW** pg. 89

# PUMPKINS

## PLANTING

Plant pumpkins ½" - 1" deep. For a general rule of thumb plant seed the depth of three times the thickness of the seed. Plant spacing varies depending on fruit size. If planting a large pumpkin give plant approximately 72 sq. ft. of space. Medium sized pumpkins require 30 sq. ft. of space. Pie pumpkins require 24 - 30 sq. ft. of space. Miniature pumpkins require 10 - 24 sq. ft. of space. See the "Pumpkin Planting/Harvesting Timing Chart" on page 89 for additional information.

See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## MANAGEMENT

Scout fields every 7 days to ensure crop health. Look for insect, weed, and disease pressure. The first three weeks focus on weeds and insect pressure. Then focus on disease pressure. For weed, insect, and disease identification and treatments consult the Midwest Vegetable Production Guide:

[www.ruppseeds.com/MVPG](http://www.ruppseeds.com/MVPG) or your local extension. Place pollinators in field to ensure maximum fruit set.

## HARVEST

Harvest when fruit has developed deep color. Handles will appear dry. Cut handles with shears to protect handles from being broken off.

## STORAGE

Clean fruit of dirt and wash in 5% chlorine solution. Let air dry and cure for 10 - 12 days. Make sure air is able to circulate around fruit. It is important to keep fruit dry.

## POWDERY MILDEW RATINGS

HR - High Resistance  
IR - Intermediate Resistance  
T - Tolerant

## PLANT SPACING

Each variety or type of pumpkin has an optimum plant spacing for its best performance. If plants are too close, stress and competition can decrease fruit size and possibly even reduce the number of female flowers. Under extreme stress, tight spacing may eliminate the crop entirely.

- Optimum spacing for maximum yield, especially for jack-o-lantern pumpkins, will not necessarily be the best spacing for large fruit size. For large fruit, we would suggest reducing plant density to the next recommended plant population.

## PLANT SPACING (CONTINUED)

- Accurate plant spacing will be an equal opportunity environment for every plant.
- Suggested populations are for final plant stands.
- To achieve ideal plant populations it is necessary to either over-plant and hand thin or to plant according to recommendations and hand plant later to fill skips.
- Seed corn maggots, wire worms, mice and birds, floods or lack of rain are all common problems that effect accurate stand establishment.

## PLANT SPACING CHART

	Row Width	Distance Between Plants	Plants Per Acre
<b>Category 1</b>	12'	6'	605
<b>Category 2</b>	7 ½ to 9'	4'	1,210 to 1,450
<b>Category 3</b>	6 to 7 ½'	4'	1,450 to 1,815
<b>Category 4</b>	5 to 6'	2'	3,600 to 4,350



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**Naturall**

#### VEGETABLE ROOT INOCULANT

Naturall™ for Vegetables contains proprietary and patent pending biologicals that colonize the root system of plants. Crop stress such as disease and dry weather can be alleviated, and often systemically, so that root colonization by this treatment can affect the physiology of the whole plant resulting in higher yields. See page 125 for application rates and pricing.

## GROWER PREFERRED ALL-STARS ★ PUMPKINS

Growers had great success with these varieties again in 2020. If you are just getting started with pumpkins or looking for a proven variety, take a look at these All-Stars.

### LARGE

A long awaited variety in the powdery mildew resistant class with a nice black handle atop a really dark orange, deep ribbed fruit is **Bayhorse Gold**. An 18-22lb. fruit average make this one a sure winner for the wholesale market.

**Carbonado Gold** is a 40 count pumpkin that has a very uniform round shape with strong PMT. It's dark orange fruit with black handles will make this variety an industry standard.

With its early 95 day maturity, growers can plant **Early Giant** later and still get orange pumpkins for fall. This makes it a preferred choice when challenging spring weather delays planting.

Under ideal growing conditions **Gold Medal** will produce fruit in the 30lb. size category. This dark orange, large handled variety has a full vine and 90 day maturity.

Growers are still telling us that **Solid Gold** is one of the best varieties that they have ever grown. It is the most uniform 20-25lb. variety on the market. Remember to give it room, 25 square feet per plant at a minimum. It also has a 105 day maturity so plant accordingly. Its dark orange color and large handle make Solid Gold a winner.

### MID SIZE

Growers tell us **Gold Standard** is the highest yielding 13-15lb. pumpkin in the market. Its dark orange fruit and nice handles make it a winner.

### SMALL / PIE

**Prankster** is a 3-5lb. PMR pie pumpkin that is dark orange, deep ribbed, and has a very nice sized black handle making this one of the prettiest pie pumpkins on the market.

### MINIATURE

A mini pumpkin with powdery mildew tolerance, **Gold Speck** delivers very uniform darker orange fruit, has a larger stem and is higher yielding than similar miniature varieties. Gold Speck is 20% smaller than Jack-B-Quik.

### SPECIALTY

With the red veins on a white background, **One Too Many** is the only thing like it on the market. That is what makes it sell.

### WHITE

At 20-30lb. average, **Crystal Star** is one of the largest white pumpkins on the market. Its round shape and classic white color make this fly off the shelf. It has a large vine, so give it room to grow.



Barry Rupp  
Vegetable Consultant

PUMPKINS							GIANT
		Days	Weight pounds	Skin	Vine	Spacing Category	Features
38501	<b>Dill's Atlantic Giant</b> <sup>P/P</sup>	120	100 - 600	Orange	Very Large	1	<i>Produces giant show pumpkins.</i>
38092	<b>Monster Smash</b> <sup>F1</sup>	120	50 - 150	Bright Orange	Very Large	1	<i>Complete with slightly flattened/round fruit with moderately defined ribbing, this Rupp release is targeted for those growers who have a passion to enhance their already existing Rupp "Gold Series" pumpkin line. Without question, this invention is sure to be a "smashing" success!</i>
38007	<b>Prizewinner</b> <sup>F1</sup>	120	50 - 200	Orange	Very Large	1	<i>An excellent display pumpkin with superior shape and color to Atlantic Giant.</i>
38074	<b>World of Color</b> <sup>Blend</sup>	120	50 - 125	Multi Colored Mix	Very Large	1	<i>A Rupp product that is a blend of very large pumpkins with coats of many colors. The base of the blend will be a dark red-orange pumpkin that does not fade in the sun. Other colors are white, pink &amp; blue, hubbard blue, plus peach and other nuances discovered in our breeding nursery. All of the fruit are pumpkin shaped and will definitely create a new concept in fall displays.</i>

### PUMPKINS GIANT

M=1,000 seeds

	Priced per package		Priced per pound in these package sizes	
	1 oz.	4 oz.	1#	5#
38501 <b>Dill's Atlantic Giant</b>	13.70	35.95	108.00	105.00
				1,400

### PUMPKINS GIANT

M=1,000 seeds

	Priced per package		Priced per 1,000 seeds in these package sizes	
	100 Seeds	250 Seeds	1M	3M
38092 <b>Monster Smash</b>	57.50	106.40	283.65	280.40
38007 <b>Prizewinner</b>	87.15	161.30	430.05	426.80
38074 <b>World of Color</b> <sup>Blend</sup>	60.50	112.00	298.55	295.30
				293.05





20 KARAT GOLD



BAYHORSE GOLD ★



BELLATRIX



CARBONADO ★  
GOLD



EAGLE CITY GOLD



EARLY GIANT ★



GOLD MEDAL ★



GOLD MEDALLION



GOLD RUSH













ORANGE RAVE



PHAT JACK



SOLID GOLD ★

PUMPKINS		LARGE							
		Days	Weight pounds	Skin	Powdery Mildew	Vine	Spacing Category	Bin Count	Features
38068	<b>20 Karat Gold</b> <sup>F1</sup>  	100	18 - 22	Dark Orange	IR	Semi Bush	2	40	A Rupp pmt, semi-bush hybrid with dark orange rind color and good handles. A potential option for the shipper market. U.S. Patent #5,811,642
★ 38061	<b>Bayhorse Gold</b> <sup>F1</sup>  	100	15 - 20	Very Dark Orange	IR	Vine	3	40	Uniform, slightly elevated hybrid with strikingly gorgeous, very dark orange fruit and elongated dark handle. Can be used for roadside sales or wholesale shipping in 40 count bins. Gaining popularity with growers!
38060	<b>Bellatrix</b> <sup>F1</sup> 	95	25+	Orange	IR	Large Vine	1 or 2	35	Large, round, attractive orange pumpkin with a strong, dark green handle.
★ 38069	<b>Carbonado Gold</b> <sup>F1</sup>  	100	15 - 18	Very Dark Orange	HR	Vine	3	40	Dynamic new Rupp pumpkin variety with extremely uniform shape and strong handle. Similar in weight to Bayhorse Gold, with a more rounded shape. Perfect for 40 count shipping bins or roadside retail market.
38062	<b>Eagle City Gold</b> <sup>F1</sup>  	100	18 - 24	Medium Orange	IR	Vine	3	35 - 40	The shallow ribs on the round fruit make it an ideal choice for carving. Has intermediate resistance to powdery mildew.
★ 38009	<b>Early Giant</b> <sup>F1</sup> 	95	25 - 30	Dark Orange	IR	Large Vine	2	30 - 35	Upright fruit on a productive plant with excellent orange color. Intermediate resistance to powdery mildew.
★ 38050	<b>Gold Medal</b> <sup>F1</sup>  	95	25+	Deep Orange		Large	1 or 2	30	A Rupp hybrid that is at the top of the class in appearance for the retail marketer. A large pumpkin with dark color and a great, long handle. U.S. Patent #5,811,642
38071	<b>Gold Medallion</b> <sup>F1</sup>  	110	30+	Orange		Large	1 or 2	30	A sister hybrid to Gold Medal that is 2 lbs. larger and has a larger vine. U.S. Patent #5,811,642
38523	<b>Gold Rush</b>  	120	20 - 35	Deep Orange		Large	1 or 2	30	A large Rupp pumpkin with handles 4" long and 3" in diameter, thick flesh and heavy. U.S. Patent #5,811,642
38508	<b>Howden</b>	105	25	Dark Orange		Vine	2	35	Popular for home garden.
38500	<b>Jumpin Jack</b> <sup>TM</sup> 	120	20 - 40	Orange		Large Very Vigorous	1 or 2	30	A Rupp exclusive. Very large, well handled, taller than wide variety.



WOLF



#### SAVE WITH CASH DISCOUNTS

Cash discounts are available throughout the season and are a great way to add money to your bottom line. See page 6 for all of the details.

December.....	6%
January.....	5%
February.....	4%
March.....	3%
April.....	2%

PUMPKINS		LARGE							
		Days	Weight pounds	Skin	Powdery Mildew	Vine	Spacing Category	Bin Count	Features
38001	<b>Orange Rave</b> <sup>F1</sup>	100	15 - 25	Dark Orange	IR	Semi Vine	2	35 - 40	A hybrid with rounded to slightly upright fruit and moderate ribbing. Has preferred dark orange color and intermediate resistance to powdery mildew.
38072	<b>Phat Jack</b>	125	50 +	Orange		Medium	1 or 2	25	A very large Jack O' Lantern pumpkin from Siegers. Tall with a thick handle.
★ 38085	<b>Solid Gold</b> <sup>F1</sup>	100	25	Deep Orange		Medium	2	35	A Rupp hybrid that has performed very well on the farm. Has excellent color, handles and yields. U.S. Patent #5,811,642
38550	<b>Wolf</b> <sup>PVP</sup>	120	15 - 25	Deep Orange		Large	1	40	Round to oblate shaped fruit with moderate ribs and very thick, long handles. The flesh thickness is excellent which helps to prevent against flat-sided fruit and makes them heavy for their size.

PUMPKINS LARGE		M=1,000 seeds				
Priced per package		250 Seeds				
Priced per 1,000 seeds in these package sizes			1M	3M	25M	100M
38068	20 Karat Gold	21.30	56.70	53.45	50.95	49.65
38068	20 Karat Gold <sup>F1400</sup>	23.45	62.50	59.25	56.75	55.45
38061	Bayhorse Gold <sup>F1400</sup>	36.40	96.95	93.70	91.20	89.90
38060	Bellatrix <sup>F1400</sup>	30.90	82.40	79.15	76.65	75.35
38069	Carbonado Gold <sup>F1400</sup>	37.40	99.70	96.45	93.95	92.65
38062	Eagle City Gold <sup>F1400</sup>	35.95	95.85	92.60	90.10	88.80
38009	Early Giant <sup>F1400</sup>	27.70	73.80	70.55	68.05	66.75
38050	Gold Medal	20.75	55.25	52.00	49.50	48.20
38050	Gold Medal <sup>F1400</sup>	22.95	61.10	57.85	55.35	54.05
38050U	Gold Medal <sup>Untreated</sup>	20.75	55.25	52.00	49.50	48.20
38071	Gold Medallion	19.05	50.75	47.50	45.00	43.70
38071	Gold Medallion <sup>F1400</sup>	21.25	56.60	53.35	50.85	49.55
38523	Gold Rush	12.25	32.65	29.40	26.90	25.60
38523	Gold Rush <sup>F1400</sup>	14.45	38.45	35.20	32.70	31.40
38001	Orange Rave <sup>F1400</sup>	32.40	86.35	83.10	80.60	79.30
38085	Solid Gold	26.35	70.15	66.90	64.40	63.10
38085	Solid Gold <sup>F1400</sup>	28.50	75.95	72.70	70.20	68.90

PUMPKINS LARGE		M=1,000 seeds				
Priced per package		1 oz.	4 oz.			
Priced per pound in these package sizes				1#	5#	25#
38508	Howden	3.40	10.00	30.75	27.75	25.75
38500	Jumpin' Jack™	7.55	22.35	68.70	65.70	63.70
38072	Phat Jack F1400	13.85	40.95	125.90	122.90	120.90
38550	Wolf F1400	17.35	51.40	158.15	155.15	153.15



GOLD STANDARD ★



SECRETARIAT



SKIDOO GOLD



BISBEE GOLD 🔥



DARLING



FORT KNOX **NEW**

PUMPKINS				MID SIZE								
▲				Days	Diameter Height	Weight pounds	Skin	Powdery Mildew	Vine	Spacing Category	Bin Count	Features
★	38045	Gold Standard <sup>F1</sup>		90	13 x 13"	16	Deep Orange		Restricted Vine	3	45	A Rupp pumpkin with good handles, high yields and deep orange color. Will blend right in with Howden to bring the average size down.
	38034	Secretariat <sup>F1</sup>		105	12 x 9"	15	Dark Orange	IR	Restricted Vine	3	45	Prolific plants produce beautiful, slightly-flattened fruit with thick handles. Works well for binned markets or road-side growers.
	38076	Skidoo Gold <sup>F1</sup>		90	10 x 11"	12 - 15	Deep Orange	HR	Restricted Vine	3	45	Blocky, heavily ribbed, mid-sized hybrid with powdery mildew tolerance. Improved uniformity and color over comparable varieties in the same weight class.

PUMPKINS MID SIZE		M=1,000 seeds					
Priced per package		250 Seeds					
Priced per 1,000 seeds in these package sizes			1M	3M	25M	100M	Seeds /lb.
38010	<b>Bus Stop</b> <sup>F1400</sup>	14.80	39.40	36.15	33.65	32.35	3,400
38045	<b>Gold Standard</b>	13.45	35.75	32.50	30.00	28.70	3,100
38045	<b>Gold Standard</b> <sup>F1400</sup>	15.60	41.55	38.30	35.80	34.50	3,100
38045U	<b>Gold Standard</b> <sup>Untreated</sup>	13.45	35.75	32.50	30.00	28.70	3,200
38034	<b>Secretariat</b> <sup>F1400</sup>	31.70	84.45	81.20	78.70	77.40	3,000
38076	<b>Skidoo Gold</b> <sup>F1400</sup>	32.15	85.65	82.40	79.90	78.60	2,800

PUMPKINS SMALL / PIE		M=1,000 seeds					
Priced per package		250 seed					
Priced per 1,000 seeds in these package sizes			1M	3M	25M	100M	Seeds /lb.
38075	<b>Bisbee Gold</b> <sup>F1400</sup>	34.50	91.95	88.70	86.20	84.90	3,100
38020	<b>Darling</b> <sup>F1400</sup>	29.55	78.75	75.50	73.00	71.70	4,100
38115	<b>Fort Knox</b> <sup>F1400</sup>	34.80	92.80	89.55	87.05	85.75	2,500
38046	<b>Hybrid Pam</b> <sup>F1400</sup>	17.75	47.30	44.05	41.55	40.25	2,800
38003	<b>Jack Sprat</b> <sup>F1400</sup>	32.10	85.50	82.25	79.75	78.45	5,800
38038	<b>Pik-A-Pie</b>	12.50	33.25	30.00	27.50	26.20	3,800
38038	<b>Pik-A-Pie</b> <sup>F1400</sup>	14.70	39.10	35.85	33.35	32.05	3,700
38038U	<b>Pik-A-Pie</b> <sup>Untreated</sup>	12.50	33.25	30.00	27.50	26.20	3,800
38067	<b>Prankster</b> <sup>F1400</sup>	21.95	58.45	55.20	52.70	51.40	3,400
38047	<b>Touch of Autumn</b>	11.05	29.35	26.10	23.60	22.30	5,500
38047	<b>Touch of Autumn</b> <sup>F1400</sup>	13.20	35.15	31.90	29.40	28.10	5,500
38047U	<b>Touch of Autumn</b> <sup>Untreated</sup>	11.05	29.35	26.10	23.60	22.30	5,500
38116	<b>Yosemite</b> <sup>F1400</sup>	34.05	90.80	87.55	85.05	83.75	2,400
Priced per package		1 oz.	4 oz.				Seeds /lb.
Priced per pound in these package sizes				1#	5#	25#	
38507	<b>Small Sugar</b> <sup>Asgrow Strain</sup>	4.85	14.30	43.85	40.85	38.85	3,700





JACK SPRAT



PIK-A-PIE




















PRANKSTER ★



TOUCH OF AUTUMN



YOSEMITE **NEW**

PUMPKINS			SMALL / PIE							
			Days	Diameter Height	Weight pounds	Skin	Powdery Mildew	Vine	Spacing Category	Features
	38075	<b>Bisbee Gold</b> <sup>F1</sup>  	90	6 ½ x 6 ½"	6 - 7	Very Dark Orange	HR	Semi Bush	3	Gorgeous dark orange fruit and jet black handles. Has tremendously refined ribbing and high resistance to P.M. Top of the line!
	38020	<b>Darling</b> <sup>F1</sup> 	90	8 x 12"	6 - 8	Dark Orange	IR	Semi Bush	3	Unique tall pie pumpkin with intermediate resistance to powdery mildew.
<b>NEW</b>	38115	<b>Fort Knox</b> <sup>RPX 6875</sup>  	90	7 x 7"	6	Dark Orange	HR	Medium	3	High yielding pumpkin with a handle that appears as indestructible as its namesake.
	38046	<b>Hybrid Pam</b> <sup>F1</sup> 	90	6 x 6"	5 - 7	Deep Orange		Semi Bush	3	A restricted vine, Spookie type hybrid.
	38003	<b>Jack Sprat</b> <sup>F1</sup> 	100	5" x 6"	2 - 3	Dark Orange	IR	Semi Bush	3	Fruit have a nice dark orange exterior and dark green embedded handles. Very uniform in size and shape. High fruit numbers per plant with an excellent yield potential.
	38038	<b>Pik-A-Pie</b> <sup>F1</sup>  	85	6 x 5"	5 - 6	Dark Orange		Semi Bush	3	Produces uniform fruit with a large, dark green handle. Yields an abundance of excellent quality pumpkins.
	38067	<b>Prankster</b> <sup>F1</sup>  	85	6 x 4"	3	Dark Orange	IR	Semi Bush	3	An excellent stemmed powdery mildew tolerant pumpkin. Good size for boxing, painting and the school market.
	38507	<b>Small Sugar</b> <sup>Asgrow Strain</sup>	100	6 x 7"	5 - 6	Orange		Medium	3	A selection with a distinctly superior handle when compared to other Small Sugar strains.
	38047	<b>Touch of Autumn</b> <sup>F1</sup>  	95	6 x 5"	2 ¼	Medium Deep Orange	IR	Semi Bush	3	A hybrid, with excellent handles and is just the right size for boxing. In most university trials is the highest yielding in fruit numbers and pounds per acre.
<b>NEW</b>	38116	<b>Yosemite</b> <sup>RPX 6880</sup>  	90	6 ½ x 7"	6 - 7	Deep Red/Orange	IR	Medium	3	The extra-long handle on Yosemite makes it an attractive addition for your farm market display and a nice option for kids to carry. Our trial cooperators love its "stunning shape and color". Stores extremely well. Picture on page 89.

## PUMPKIN PLANTING/HARVESTING TIMING CHART

Pumpkin growers who are planting multiple varieties need to consider multiple planting dates so that they can harvest their crop at its peak. The planting date plus the maturity of the variety should equal the potential harvest date. Keep in mind that higher or lower than average heat and sunlight may also impact the development of the crop by decreasing or increasing its maturity.

Use the following chart to align your pumpkin variety maturity with your desired harvest date to schedule planting.

Variety Maturity	Planting Date: May 1 Harvest Range	Planting Date: May 15 Harvest Range	Planting Date: June 1 Harvest Range	Planting Date: June 15 Harvest Range	Planting Date: July 1 Harvest Range
<b>80</b>	July 10 - July 30	July 24 - Aug. 13	Aug. 10 - Aug. 30	Aug. 24 - Sept. 13	Sept. 9 - Sept. 29
<b>85</b>	July 15 - Aug. 4	July 29 - Aug. 18	Aug. 15 - Sept. 4	Aug. 29 - Sept. 18	Sept. 14 - Oct. 4
<b>90</b>	July 20 - Aug. 9	Aug. 3 - Aug. 23	Aug. 20 - Sept. 9	Sept. 3 - Sept. 23	Sept. 19 - Oct. 9
<b>95</b>	July 25 - Aug. 14	Aug. 8 - Aug. 28	Aug. 25 - Sept. 14	Sept. 8 - Sept. 28	Sept. 24 - Oct. 14
<b>100</b>	July 30 - Aug. 19	Aug. 13 - Sept. 2	Aug. 30 - Sept. 19	Sept. 13 - Oct. 3	Sept. 29 - Oct. 19
<b>105</b>	Aug. 4 - Aug. 24	Aug. 18 - Sept. 7	Sept. 4 - Sept. 24	Sept. 18 - Oct. 8	Oct. 4 - Oct. 24
<b>110</b>	Aug. 9 - Aug. 29	Aug. 23 - Sept. 12	Sept. 9 - Sept. 29	Sept. 23 - Oct. 13	Oct. 9 - Oct. 29
<b>115</b>	Aug. 14 - Sept. 3	Aug. 28 - Sept. 17	Sept. 14 - Oct. 4	Sept. 28 - Oct. 18	Oct. 14 - Nov. 3
<b>120</b>	Aug. 19 - Sept. 8	Sept. 2 - Sept. 22	Sept. 19 - Oct. 9	Oct. 3 - Oct. 23	Oct. 19 - Nov. 8

Pumpkin quality will be the best when harvested nearest to the variety's actual maturity. First, select the maturity of the variety you are using, then pick the date you would like your pumpkins to look the freshest (nice green handle). The required planting date will be at the top of the column. For example; if you are planting Gold Medal (95 day) and you want them to look their freshest on September 15th, you will want to plant on June 15. However, if you are planting Gold Rush (120 day) and you also want them to look their freshest on September 15th, you will want to plant on May 15.



BATWING MIX



GOLD DUST



GOLD SPECK ★














JACK-B-QUIK



ORANGITA



SPARK

PUMPKINS			MINIATURE							
▲			Days	Diameter Height	Weight pounds	Skin	Powdery Mildew	Vine	Spacing Category	Features
38548	Batwing Mix		90	3"	¼	Orange/ Green		Semi Bush	4	A unique orange and dark green colored pumpkin when harvested early to full orange color at maturity.
38066	Gold Dust <sup>F1</sup>   		95	3 ½ x 2"	.3	Orange	IR	Semi Bush	4	A Rupp developed semi bush hybrid with darker fruit than Jack-B-Quik plus powdery mildew tolerance. Most fruit set close to the crown early and escape virus flecking. The strain that growers prefer.
Waiver Needed: Our current seed lot may produce up to 15% fruit that vary in shape, color, and size. We ask that you sign the “Gold Dust Agreement” on page 138. Pricing has been adjusted for this current seed lot.										
★ 38077	Gold Speck <sup>F1</sup>  		95	3 x 2"	¼	Orange	IR	Bush	4	A Rupp sister bush hybrid to Gold Dust, with similar vine and fruit characteristics, but smaller than Jack-B-Quik and Munchkin. Most fruit set close to the crown early and escape virus flecking. Our highest yielding Jack-B-Little type. The strain that growers prefer.
38525	Jack-B-Quik 		95	3 x 2"	¼	Orange		Medium	4	A more ribbed mini with taller and darker orange fruit.
38042	Orangita 		80	5 x 3"	1 - 1 ½	Orange	HR	Semi Bush	4	Beautiful mini pumpkin featuring a disk shape with deep ribbing. Makes for an excellent display.
38043	Spark		90	3.5 x 2"	½	Deep Orange / Yellow Stripes	HR	Vine	4	Very uniform, striped ornamental variety with a dark green handle that is strongly attached to the fruit. Excellent for Fall decorations when used together with Caperita.
38538	Wee-B-Little <sup>PVP</sup>  		95	3 x 3"	½	Orange		Bush	3	An AAS winner from Syngenta that can be carved plus excellent plant health on a tight bush plant. A true mini pumpkin.
Growing Tip: Wee-B-Little is known for its poor yields! High levels of nitrogen causes excessive plant growth and low fruit set. If you force it into the survival mode (more like a weed) with low nitrogen, plant size will be reduced and fruit numbers will multiply and give much better yields. We have proven to ourselves that low input production improves yields.										
38078	WeeeeeOne Blend <sup>F1</sup>  		95	3 x 3" - 1 ½ x 1 ½"	½	Orange		Large Bush	3	A unique miniature pumpkin with shallow ribs. Vigorous bush with intermediate resistance to powdery mildew and very high yields. WeeeeeOne Blend approximate size range from 1 ½ x 1 ½" up to 3 x 3" fruit size. A must have in your miniature and gourd lineup



WEE-B-LITTLE



WEEEEONE BLEND

## GROW YOUR BEST PUMPKINS YET!



Our pumpkin guide features tips from product selection through planting and harvest. Visit our website to download it or request a printed copy.



[www.ruppseeds.com/PumpkinGuide](http://www.ruppseeds.com/PumpkinGuide)

## PUMPKINS MINIATURE

M=1,000 seeds

	Priced per package Priced per 1,000 seeds in these package sizes	250 seed					
			1M	3M	25M	100M	Seeds /lb.
38066 <b>Gold Dust</b>		17.20	45.75	42.50	40.00	38.70	6,600
38066 <b>Gold Dust</b> <sup>FI400</sup>		19.35	51.60	48.35	45.85	44.55	6,600
38066U <b>Gold Dust</b> <sup>Untreated</sup>		17.20	45.75	42.50	40.00	38.70	6,700
38077 <b>Gold Speck</b>		20.60	54.85	51.60	49.10	47.80	7,000
38077 <b>Gold Speck</b> <sup>FI400</sup>		22.80	60.70	57.45	54.95	53.65	7,000
38077U <b>Gold Speck</b> <sup>Untreated</sup>		20.60	54.85	51.60	49.10	47.80	7,000
38042 <b>Orangita</b> <sup>FI400</sup>		25.75	68.60	65.35	62.85	61.55	6,500
38043 <b>Spark</b>		28.45	75.80	72.55	70.05	68.75	5,900

## PUMPKINS MINIATURE

M=1,000 seeds

	Priced per package Priced per 1,000 seeds in these package sizes	250 seed					
			1M	3M	25M	100M	Seeds /lb.
38538 <b>Wee-B-Little</b>		10.40	27.65	24.40	21.90	20.60	5,500
38538 <b>Wee-B-Little</b> <sup>FI400</sup>		12.60	33.50	30.25	27.75	26.45	5,400
38538U <b>Wee-B-Little</b> <sup>Untreated</sup>		10.40	27.65	24.40	21.90	20.60	5,500
<b>WeeeeOne Blend</b>							
38078 <sup>FI400</sup>		24.55	65.35	62.10	59.60	58.30	7,600
<b>WeeeeOne Blend</b>							
38078U <sup>Untreated</sup>		22.35	59.50	56.25	53.75	52.45	7,900
	Priced per package Priced per pound in these package sizes	1 oz.	4 oz.				Seeds /lb.
				1#	5#	25#	
38548 <b>Batwing Mix</b>		13.50	39.85	122.50	119.50	117.50	5,800
38525 <b>Jack-B-Quik</b>		9.25	27.35	84.10	81.10	79.10	7,000

## BARRY'S PUMPKIN GROWING TIPS FOR SUCCESS

My name is Barry Rupp and I have been serving growers as a vegetable seed consultant with Rupp Seeds for over 30 years. Our company started breeding pumpkins about 25 years ago and I've been passionate about them ever since. Following are my "Tips for Success for the Novice Pumpkin Grower" or maybe "Reminders for Success for the Experienced Pumpkin Grower". Regardless of your experience in raising pumpkins, here are nine helpful suggestions, listed in no particular order:

### CROP ROTATION

I strongly recommend that growers NOT plant pumpkins in the same field in consecutive years and would suggest that waiting a minimum of three years between pumpkin crops would be best. If you have adequate acreage, I would even prefer that you wait 5 to 7 years before raising another pumpkin crop in that same field. This helps to reduce and possibly even prevent soil diseases and pest infestations. When possible, raising pumpkins after wheat is a great option. Rotating pumpkins in after corn and soybeans can increase the likelihood of higher rootworm populations and phytophthora, which will be detrimental to the crop.

### PLANT SPACING

Correct plant spacing is very important and will vary by product. Planting a full vine variety too close can increase disease pressure. Diseases like powdery mildew or fruit rot can become more prevalent when the vine foliage does not have adequate space for air movement to aid in removing moisture in the plant canopy. Planting too closely will also affect fruit size and yield by holding too much heat in the field and restricting the ability for pollinators to do their job. It also impedes insecticide and fungicide effectiveness by restricting spray penetration.

### PEST CONTROL

The biggest problem I hear about concerning insect and disease control is when growers are using the same product in repeated applications. Rotate your insecticide and fungicides based on their mode of action and NOT just brand name or active ingredient. Remember scouting is one of your best tools. For chemical recommendations, consult the Midwest Vegetable Production Guide [www.ruppseeds.com/MVPG](http://www.ruppseeds.com/MVPG).

### POLLINATION

Pollinators can have a significant effect on pumpkin yield. I have heard it can take 14 – 17 visits by a pollinator (bees, etc.) in order for a flower to be fully pollinated. Scout your fields in the morning and if you don't see or hear bees, I recommend bringing in 1 hive of bees per acre.

### VARIETY CHOICE

Make sure you know your target market before selecting which hybrids you want to grow. Most retail markets will accept a wide range of sizes, shapes and colors, where wholesale markets tend to have more specific requirements around bin count, size, shape, color and handle.

### FIELD LOCATION

Vine crops typically perform better on well-drained sandy soils. The heavier the soils, the greater the importance of drainage. When a pumpkin is ripe, any rain that gets taken up by the plant is deposited into the seed cavity, which may lead to and even speed up the process of fruit rot.

### BIOLOGICS

Beneficial bacteria in the soil, or added at planting time, will colonize on the roots and improve root and plant health which will help the plant handle stress (i.e. – drought or excessive water) later in the season.

### PLANTING TIMING

This is a topic we discuss often as we continue to develop new varieties. If you are currently growing a late maturing variety and choose to also plant an early variety, DO NOT plant them on the same day. The early variety usually ripens way too early for your market and will likely rot before you harvest. We have a very handy "Pumpkin Planting/Harvesting Timing Chart" on page 89 to assist you with your planting dates.

### FERTILITY

Soil testing can't be emphasized enough. Know what is already in your soil, and what you need to add. For invaluable information on this, see the Midwest Vegetable Production Guide link listed under Pest Control.







BLACK KAT



BLUE DOLL



FOOL'S GOLD **NEW**



FRIGHT **NEW**



GOOSE BUMPS II  
KNUCKLE HEAD



HSC151



INDIAN DOLL



MELLOW YELLOW



NAKED BEAR



NEW ENGLAND  
CHEDDAR

Plant Porcelain Doll and help in the fight against breast cancer. Visit [www.PinkPumpkinPatch.org](http://www.PinkPumpkinPatch.org) for details.

Send pledge form and funds to:

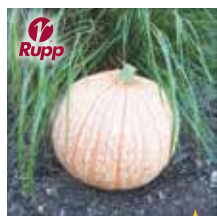
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PO Box 670  
Rocky Ford, CO 81067

For promotional materials,  
please visit

[www.ruppseeds.com/PinkPumpkin](http://www.ruppseeds.com/PinkPumpkin)



PUMPKINS		SPECIALTY						Features
		Days	Diameter Height	Weight pounds	Skin	Vine	Spacing Category	
38089	<b>Black Kat</b> <sup>F1</sup>	77		½ - 1	Black	Semi Bush	4	Very dark green pumpkin having a classic shape with deep ridges. Will start to turn orange after approximately 2 months of storage. Intermediate tolerance to PM. <b>Plant no earlier than June 22.</b>
38012	<b>Blue Doll</b> <sup>F1</sup>	100	12 x 10"	20 - 24	Blue	Very Large Vine	2	Features an exotic blue color and an almost square appearance with deep ribbing. Exhibits deep orange, sweet flesh that can be used for pies, soup, and gourmet culinary delights. Great for stacking displays.
<b>NEW</b> 38114	<b>Fool's Gold</b> <sup>F1 RPX 6229</sup>	90	9½ x 9¼"	11 - 12	Tan	Large Vine	3	With its unique tan color, Fool's Gold will catch your customer's eye and it looks great when displayed in a mix with orange and white varieties. Intermediate resistance to powdery mildew.
<b>NEW</b> 38118	<b>Fright</b>	90	10 x 9 ½"	12	Orange with green warts	Medium	3	Add a frightening look to your fall display with this heavily-warted variety. The green warts pop out on this orange pumpkin, making it a favorite of our trial cooperators.
38093	<b>Goose Bumps II</b> <sup>F1</sup>	95	8 x 8"	8 - 12	Orange	Medium	3	Improved Goose Bumps with higher percentage of fruit covered with warts.
38048	<b>HSC151</b>	110	8 ½ x 11"	9 - 14	Medium Orange / Green Stripes	Medium	3	Totally hullless, the roasted seeds are delicious with a nutty texture. Compared to other hullless varieties, maturity is earlier and seed yield is exceptional.
38081	<b>Indian Doll</b> <sup>F1</sup>	100		20 - 24	Deep Orange	Vine	2	Indian Doll features a deep-orange color and an almost square appearance. Sweet flesh is great for pies, soup and gourmet culinary delights. Great for fall decorations.
42939	<b>Jarrahdale</b>	95	10"	7 - 8	Blue	Medium	2	The favorite Australian winter squash. Excellent quality flesh, beautiful looking fruit. Good to use for both food or ornamental use.
38088	<b>Knuckle Head</b> <sup>F1</sup>	105	12 x 10"	12 - 16	Orange	Medium	3	Largest variety in the Super Freak series.
38044	<b>Mellow Yellow</b>	100	10 x 12"	12 - 15	Yellow	Vine	2	Slightly elevated profile. Medium ribbing. Intermediate tolerance to PM.
38030	<b>Naked Bear</b>	105	5 x 6"	2 - 4	Light Orange	Medium	3	Large handled, naked seeded variety. High yielding product for either boxed pie pumpkin or edible seed pack markets.
42969	<b>New England Cheddar</b> <sup>F1</sup>	112	8 ½ x 12"	15	Tan	Vine	2	A hybrid that is excellent for industrial, or home processing (canning or pies) or other uses. It has a uniform rind color and deep orange flesh. It has superior dry matter and sugar content when compared with Long Island Cheese or Dickinson Field.



ONE TOO MANY★



PORCELAIN DOLL



RED WARTY THING



SMALL WORLD OF COLOR








THUMPKIN

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PUMPKINS			SPECIALTY						
	▲		Days	Diameter Height	Weight pounds	Skin	Vine	Spacing Category	Features
★	42961	One Too Many <sup>F1</sup> 	110	14"	20	White Back-ground with Red Veins	Large Vine	2	A Rupp product with outstanding potential for decorative use, developed through cross species breeding work. Fruit are 75% round with about 25% oblong fruit.
	38029	Porcelain Doll <sup>F1</sup> FI400 	110	12 x 10"	20 - 24	Pink	Very Large Vine	3	This eye-catching hybrid pink pumpkin with deep ribbing and almost square appearance, stacks well and is sure to be a winner for your market stand! When picking, wait for the stem to get fully corky for maximum pink potential.
	42953	Red Warty Thing <sup>Essex Turban</sup> 	110	14"	20	Bright Orange / Warted	Large Vine	2	A variety sourced from the U.S. Seed Bank with an appearance that is well suited as an unusual addition for the decorative market. Good eating, Hubbard type flesh, very hard, thick rind.
	38533	Rouge Vif d'Etampes <sup>Cinderella</sup>	105	15 x 6"	20	Reddish Orange	Vine	2	A unique pumpkin from France. A flattened, deeply ridged fruit. Surprising beauty, great yield and flavor. Cinderella type used for stacking displays.
	38084	Small World of Color 	110	12 x 11"	25 - 30	Multi Color	Vine	1	A Rupp mix with round pumpkin shaped fruit in the maxima class that can be used in a new way of decorating. The blend contains Crystal Star that will keep its white color (not turn blue or yellow), plus a pink and also a pink & blue variety.
	38549	Thumpkin 	120	14 x 8"	15 - 25	Dark Orange	Vine	1	Hard stemmed pumpkin with unique flattened fruit and a gigantic handle. Plant at 72 square feet per plant. Crowding results in fewer but larger pumpkins. From the same supplier as Wolf.

PUMPKINS SPECIALTY			M=1,000 seeds				
Priced per package			100 Seed	250 Seed			
Priced per 1,000 seeds in these package sizes					1M	3M	25M 55M
38089	<b>Black Kat</b> <sup>F1400</sup>		17.00	31.40	83.65	80.40	77.90 76.60
38012	<b>Blue Doll</b> <sup>F1400</sup>		18.10	33.50	89.30	86.05	83.55 82.25
38114	<b>Fool's Gold</b> <sup>F1400</sup>		21.40	39.60	105.55	102.30	99.80 98.50
38118	<b>Fright</b> <sup>F1400</sup>		23.00	42.55	113.45	110.20	107.70 106.40
38093	<b>Goose Bumps II</b> <sup>F1400</sup>		23.15	42.85	114.15	110.90	108.40 107.10
38048	<b>HSC151</b> <sup>F1400</sup>		13.15	24.30	64.80	61.55	59.05 57.75
38081	<b>Indian Doll</b> <sup>F1400</sup>		18.10	33.50	89.25	86.00	83.50 82.20
38088	<b>Knuckle Head</b> <sup>F1400</sup>		23.15	42.85	114.15	110.90	108.40 107.10
38044	<b>Mellow Yellow</b> <sup>F1400</sup>		20.90	38.70	103.15	99.90	97.40 96.10
38030	<b>Naked Bear</b>		14.95	27.60	73.50	70.25	67.75 66.45
42969	<b>New England Cheddar</b>		7.40	13.65	36.40	33.15	30.65 29.35
42969U	<b>New England Cheddar</b> <sup>Untreated</sup>		7.40	13.65	36.40	33.15	30.65 29.35

PUMPKINS SPECIALTY			M=1,000 seeds				
Priced per package			100 Seed	250 Seed			
Priced per 1,000 seeds in these package sizes					1M	3M	25M 55M
42961	<b>One Too Many</b>		33.30	61.65	164.35	161.10	158.60 157.30
42961U	<b>One Too Many</b> <sup>Untreated</sup>		33.30	61.65	164.35	161.10	158.60 157.30
42961	<b>One Too Many</b> <sup>F1400</sup>		34.50	63.85	170.20	166.95	164.45 163.15
38029	<b>Porcelain Doll</b> <sup>F1400</sup>		24.95	46.20	123.20	119.95	117.45 116.15
38084	<b>Small World of Color</b>		46.65	86.35	230.15	226.90	224.40 223.10
Priced per package			1 oz.	4 oz.			
Priced per pound					1#	5#	25# Seeds /lb.
42939	<b>Jarrahdale</b>		4.90	14.45	44.40	41.40	39.40 2,800
42953	<b>Red Warty Thing</b>		10.30	30.45	93.60	90.60	88.60 1,900
42953U	<b>Red Warty Thing</b> <sup>Untreated</sup>		10.30	30.45	93.60	90.60	88.60 1,900
38533	<b>Rouge Vif d'Etampes</b>		8.05	23.85	73.25	70.25	68.25 1,500
38549	<b>Thumpkin</b> <sup>F1400</sup>		18.75	55.55	170.80	167.80	165.80 2,200



CASPERITA



SNOWBALL



BLANCO



COTTON CANDY



WHITE GOLD **NEW**



FLAT WHITE BOER FORD

PUMPKINS		WHITE							
		Days	Diameter Height	Weight pounds	Skin	Powdery Mildew	Vine	Spacing Category	Features
38532	<b>Baby Boo</b> <sup>PVP</sup>	100	3 x 2"	¼	White		Vine	4	A white Jack-B-Quik type variety. Should be planted later than Jack-B-Quik types because it will turn a pale yellow at full maturity.
38032	<b>Casperita</b> <sup>F1</sup>	77	3 x 2"	½ - 1	White	IR	Semi Bush	4	Stunning personal sized hybrid with good yield. Classic shape that can be used for both ornamental and edible purposes. Ideal size for restaurant use.
38004	<b>Snowball</b> <sup>F1</sup>	90	6 x 6"	1-2	White	IR	Vine	4	Very high yielding variety with attractive smooth round fruit. Bright white coloration with a dark green stem. Has the ability to hold white color under stress.
38033	<b>Blanco</b>	100	8 x 6"	4 - 6	White		Medium	4	Flattened shape, medium rib and long handle. Has shown moderate resistance to color change due to sun or light frost. Great alternative for growers who require a consistent high quality white pumpkin. The stay white gene extends the harvest window.
38065	<b>Cotton Candy</b> <sup>F1</sup>	110	9 x 8"	5 - 12	White		Vine	3	A Rupp white pumpkin with good handles, a blend of strains that range between 5 and 12 lbs. Harvest and store in the dark to maintain best white color. Excellent for painting. Flesh color is white. Despite its name, this is not good for eating.
<b>NEW</b> 38119	<b>White Gold</b> <sup>F1 RPPX 6927</sup>	90	7½ x 8¾"	8	White		Medium	3	A new generation of white pumpkin with uniform, slightly ribbed fruit and a well attached black handle.
38016	<b>Casper</b>	90	8 x 10"	10 - 20	White		Medium	3	A smooth, white-skinned pumpkin for painting. Bright white background.
38510	<b>Flat White Boer Ford</b>	115	10 x 4"	15 - 17	White		Large	2	A flat pumpkin with a creamy white rind and thick orange flesh. The vines are vigorous, providing good cover for the fruit. It is both superbly tasty and great for fall decoration. Stacks well.
38041	<b>Flat Stacker</b>	90 - 95		15 - 20	White		Semi Bush	4	Extremely oblate shape with deep ribbing. Great for stacking. Good disease resistance.
★ 38086	<b>Crystal Star</b>	100	12 x 11"	25 - 35	White		Medium	2	A Rupp variety that will maintain its true white color (not turn blue or yellow at maturity) and be a pumpkin shape.
38547	<b>Full Moon</b> <sup>PVP</sup>	115		25 - 75	White		Large	2	A large white display pumpkin from Hollar. Harvest when white and store in the shade to maintain white color.





FLAT STACKER



CRYSTAL STAR ★



CELESTA



CHAMPION



CRUNCHY KING



EDNA NEW

RADISH				
▲		Days	Shape	Features
39104	<b>Celesta</b> <sup>F1</sup>	25	Globe	Excellent quality and reliability. Uniform round bulbs, bright red bulb color, very good internal quality. Strong against Peronospora on bulbs and foliage.
39003	<b>Champion</b>	21	Globe	Bright red, globe-shaped, very firm. Slow to pith.
39105	<b>Crunchy King</b> <sup>F1</sup>	24	Globe	Holds round shape and does well all season. Strongest in Fall and Spring slots. Bright white interior with attractive dark red skin. Has very high recovery and is slow to pith.
39001	<b>Easter Egg II</b>	28	Globe	Multi-line mix for the home garden. Red, pink, purple, violet and white radishes; good flavor.
39007	<b>French Breakfast</b>	24	Oblong	Skin is rose scarlet with a white tip. Flesh is white, tender and coarser than most varieties.
39102	<b>Pearl</b> <sup>F1</sup>	25	Globe	White round radish with a small green neck for open field production. Very vigorous growth and good resistance to cracking. Nice mix with reds.

RADISH		WINTER / ORIENTAL		
▲		Days	Features	
39701	<b>April Cross</b> <sup>F1</sup> Daikon Japanese Type	60	Extra slow bolting. Plant in early spring. Up to 15" long and 2 lbs.	

SPINACH		Hybrid		
▲		Days	Features	
<span style="background-color: red; color: white; border-radius: 50%; padding: 2px;">NEW</span> 41008	<b>Edna</b>	35	New baby leaf variety with beautiful, dark green, glossy, semi-savoy leaves. Combined white rust and downy mildew disease package. Well suited for late fall and early spring plantings.	
41001	<b>Olympia</b>	45	A fast growing and long standing smooth leaf hybrid for early spring or late summer sowing. Tolerant to downy mildew.	

PUMPKINS WHITE		M=1,000 seeds					
Priced per package		100 seed	250 seed				
Priced per 1,000 seeds in these package sizes				1M	3M	25M	100M
38033	<b>Blanco</b> <sup>F1400</sup>	30.45		81.10	77.85	75.35	74.05
38032	<b>Casperita</b> <sup>F1400</sup>	28.15		75.05	71.80	69.30	68.00
38065	<b>Cotton Candy</b>	15.40		40.95	37.70	35.20	33.90
38065	<b>Cotton Candy</b> <sup>F1400</sup>	17.55		46.75	43.50	41.00	39.70
38065U	<b>Cotton Candy</b> <sup>Untreated</sup>	15.40		40.95	37.70	35.20	33.90
38086	<b>Crystal Star</b> <sup>F1400</sup>	41.15	76.15	202.95	199.70	197.20	195.90
38086U	<b>Crystal Star</b> <sup>Untreated</sup>	39.95	73.95	197.10	193.85	191.35	190.05
38510	<b>Flat White Boer Ford</b> <sup>F1400</sup>	19.25	51.25	48.00	45.50	44.20	
38041	<b>Flat Stacker</b> <sup>F1400</sup>	17.65	32.60	86.85	83.60	81.10	79.80
38547	<b>Full Moon</b>	33.05	61.15	163.00	159.75	157.25	155.95
38004	<b>Snowball</b> <sup>F1400</sup>	34.55	92.10	88.85	86.35	85.05	
38119	<b>White Gold</b> <sup>F1400</sup>	21.40	39.60	105.55	102.30	99.80	98.50
Priced per package		1 oz.	4 oz.				
Priced per pound in these package sizes				1#	5#	25#	
38532	<b>Baby Boo</b>	14.65	43.30	133.10	130.10	128.10	
38016	<b>Casper</b>	6.35	18.70	57.50	54.50	52.50	

RADISH		M=1,000 seeds			
Priced per package		4 oz.			
Priced per pound in these package sizes			1#	5#	25#
39003U	<b>Champion</b> <sup>Untreated</sup>	4.10	9.70	9.45	9.20
39001	<b>Easter Egg II</b>	8.60	20.45	20.20	19.95
39007U	<b>French Breakfast</b> <sup>Untreated</sup>	4.10	9.70	9.45	9.20
Priced per 1,000 seeds in these package sizes		10M	50M	250M	1000M
39104	<b>Celesta</b>	1.23	1.13	1.08	1.03
39105	<b>Crunchy King</b> <sup>F300</sup>	1.49	1.39	1.34	1.29
39102	<b>Pearl</b>	2.44	2.34	2.29	2.24

RADISH WINTER/ORIENTAL		M=1,000 seeds		
Priced per 1,000 seeds in these package sizes		1M	5M	25M
39701	<b>April Cross</b>	11.40	10.00	9.05

SPINACH Hybrid		M=1,000 seeds			
Priced per 1,000 seeds in these package sizes		5M	25M	250M	1,000M
41008	<b>Edna</b> <sup>F300</sup>	0.54	0.46	0.41	0.38
41001	<b>Olympia</b> <sup>F300</sup>	0.56	0.48	0.43	0.40



BLONDE BEAUTY ★ pg. 98

# SQUASH SUMMER

## PLANTING

Direct seed into field. Plant  $\frac{1}{2}$ " -  $\frac{3}{4}$ " deep. Row spacing should range from 36" - 60" apart. In row spacing ranges from 18" - 24".

See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## MANAGEMENT

Scout fields every 7 days. Inspect for weeds, insect, and disease infestation.

## HARVEST

Harvest every other day. Fruit should be 7 - 8" in length and 1 -  $2\frac{1}{2}$ " in diameter. Another way to determine harvestability is to harvest when blossom has wilted.

## STORAGE

Store at 40 - 50°F and at 95% humidity.

## DISEASE CODES

CMV - Cucumber Mosaic Virus  
DM - Downy Mildew  
PM - Powdery Mildew  
PRV - Papaya Ringspot Virus  
WMV - Watermelon Mosaic Virus  
ZYMV - Zucchini Yellows Mosaic Virus

## HERBICIDE CAUTION

Some pre-emergence herbicides can and will cause distortions in squash and pumpkins, especially the species with the corky stems. It also has been noticed in hardstem varieties. These distortions may show up in both color or shape.





BASIMA



DUNJA ★



GREEN MACHINE



KOPANA

**Naturall™**

Enhance root growth and increase seedling vigor for healthier plants and higher yields with Naturall™ for Vegetables.

See page 125 for rates and pricing.



LIBERTY



PAYCHECK



SPINELESS BEAUTY ★



SPINELESS PERFECTION ★



SPINELESS SUPREME



STARSHIP

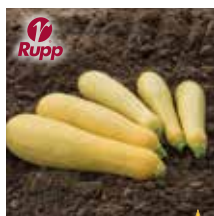
## SQUASH

## SUMMER GREEN Hybrid

Pricing on page 98

		Days	Harvest Length	Color	Type	Fruit Shape	Disease	Features
42092	<b>Basima</b>	40	4"	Pale Green	Lebanese	Tapered	WMV, ZYMV	Strong plant habit with semi-erect stem and open habit. Very productive. Perfect for stuffing.
★ 42096	<b>Dunja</b>	45	7 - 8"	Dark Green	Zucchini	Cylindrical	PM, WMV, ZYMV	A high yielding variety with a compact and open plant for ease of picking. Glossy fruit also exudes fine flecking for a quite handsome exterior.
42009	<b>Green Machine</b>	45	7 - 8"	Medium Dark Green	Zucchini	Cylindrical	CMV, PM, WMV, ZYMV	Widely adaptable, high yielding variety. Has a strong semi-open plant with an excellent disease package.
42017	<b>Kopana</b>	45	7 - 8"	Dark Green	Zucchini	Cylindrical	PM, PRSV, WMV, ZYMV	Selected for high tunnel production in the spring. Vigorous, open plant with shiny and slightly flecked fruit. Works best in the presence of some pollination. Uniform high quality fruit for early market. High yielding. Can get nine feet tall.
42052	<b>Liberty</b>	45	8"	Dark Green	Zucchini	Cylindrical	PRSV, WMV, ZYMV	Strong, open and spineless plant promoting ease of picking and less damage at harvest. Attractive glossy fruit maintain a cylindrical shape and twist off easily at maturity.
42088	<b>Paycheck</b>	42	7 - 8"	Medium Green	Zucchini	Cylindrical	CMV, PM, WMV, ZYMV	In eastern trials, it has shown good adaptability and excellent fruit quality. Works well in cooler conditions.
★ 42027	<b>Spineless Beauty</b>	50	7 ½ - 8 ½"	Medium Green	Zucchini	Cylindrical		Popular with growers due to lack of petiole spines, open plant habit, large yields, classy cylindrical fruit, and continuous setting ability.
★ 42094	<b>Spineless Perfection</b>	44	7 - 8"	Medium Green	Zucchini	Cylindrical	PM, WMV, ZYMV	A spineless variety that integrates more refined flecking onto a rich looking glossy fruit. Contains the "easy pick" characteristic meaning the fruit are easily twisted from the plant leaving the peduncle and fruit still intact.
42051	<b>Spineless Supreme</b>	45	7 - 8"	Medium Green	Zucchini	Cylindrical	CMV, PM, WMV, ZYMV	Newest of the spineless series from Syngenta. Offers improved virus and disease protection over its predecessors.
42135	<b>Starship</b>	45	2 x 3 - 4"	Medium Dark Green	Scallop	Dish		A quality scallop squash that consistently maintains its shape and glossy dark green color through multiple harvests without rounding. A vigorous bush plant.





BLONDE BEAUTY ★



GOLDEN GLORY ★



GRANDPRIZE



ONE BALL

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## SQUASH

## SUMMER YELLOW Hybrid

Pricing on page 98

			Days	Harvest Length	Color	Type	Fruit Shape	Disease	Features
★	42018	<b>Blonde Beauty</b>	40	5 - 7"	Glossy Yellow	Straightneck	Tapered		Spineless petioles provide less painful picking on this hybrid from the Slickpick series. Standard commercial shape with an open plant makes a desirable package all around!
★	42133	<b>Golden Glory</b>	50	7 - 8"	Golden Yellow	Gold Zucchini	Cylindrical	PM, WMV, ZYMV	Produces high quality uniform fruit on an open, upright and vigorous plant.
	42049	<b>Grandprize</b>	42	6 - 7"	Yellow	Straightneck	Cylindrical	PM, WMV, ZYMV	Offers improved fruit coloring, great plant vigor, and solid yield potential. Solid outer texture to withstand harvest. Increased virus resistance over Grandprize.
	42080	<b>One Ball</b>	38	3 x 3"	Gold	Zucchini	Round		Fruit set at every node and grow very rapidly after flowering. Has occasional green fruit.
	42010	<b>Sunburst</b>	50	2 1/2 x 3"	Bright Yellow	Scallop	Dish		AAS winner. Attractive, colorful fruit. Best when young.

## SQUASH SUMMER GREEN Hybrid

M=1,000 seeds

		100 Seeds	250 Seeds	M=1,000 seeds			
Priced per package							
Priced per 1,000 seeds in these package sizes				1M	3M	25M	55M
42092	<b>Basima</b>	9.50	15.80	45.10	39.20	37.45	36.45
42072	<b>CashFlow</b> <sup>FI400</sup>	15.00	25.00	71.40	62.05	60.30	59.30
42096	<b>Dunja</b> <sup>FI400</sup>	14.85	24.75	70.70	61.45	59.70	58.70
42009	<b>Green Machine</b> <sup>FI400</sup>	14.80	24.65	70.40	61.20	59.45	58.45
42017	<b>Kopana</b>	27.30	45.50	129.95	113.00		
42052	<b>Liberty</b> <sup>FI400</sup>	12.55	20.85	59.55	51.75	50.00	49.00
42088	<b>Paycheck</b> <sup>FI400</sup>	17.80	29.65	84.60	73.55	71.80	70.80
42075	<b>Payroll</b> <sup>FI400</sup>	16.45	27.35	78.05	67.85	66.10	65.10
42027	<b>Spineless Beauty</b> <sup>FI400</sup>	12.05	20.05	57.25	49.75	48.00	47.00
<b>Spineless Perfection</b>							
42094	<sup>FI400</sup>	16.80	28.00	80.00	69.55	67.80	66.80
42051	<b>Spineless Supreme</b> <sup>FI400</sup>	17.40	29.00	82.80	72.00	70.25	69.25
42135	<b>Starship</b>	6.60	10.95	31.20	27.10	25.35	24.35

## SQUASH SUMMER YELLOW Hybrid

M=1,000 seeds

		100 Seeds	250 Seeds	M=1,000 seeds				
Priced per package								
Priced per 1,000 seeds in these package sizes				1M	5M	25M	55M	80M
<b>Blonde Beauty</b>								
42018	<sup>FI400</sup>	11.05	18.35	52.30	45.45	43.70	42.70	
42049	<b>Grandprize</b> <sup>FI400</sup>	14.00	23.30	66.50	57.80	56.05		55.05
42080	<b>One Ball</b>	11.70	19.50	55.70	48.40	46.65	45.65	
42010	<b>Sunburst</b> <sup>FI400</sup>	11.70	19.50	55.70	48.40	46.65		45.65
<b>Surplus List</b>								
42133	<b>Golden Glory</b> <sup>FI400</sup>	14.10	23.50	67.05	58.30	56.55	55.55	

# GROWER PREFERRED ALL-STARS ★ SUMMER SQUASH

## GREEN

**Dunja** has the highest market share of any green zucchini that we offer. Ideal for those customers who want a darker skinned, glossy looking fruit. Dunja also has a comprehensive disease package for extended harvest.

For those that love oldies but goodies, **Spineless Beauty** is for you. The glossy, medium-green fruit is still one of the prettiest looking zucchini hybrids on the market today.

**Spineless Perfection** is quickly gaining traction with commercial growers. It demonstrates a similar style of classy fruit exterior as its forerunner, Spineless Beauty. It is simple to harvest due to an open plant habit and “easy pick” trait. Spineless Perfection also has an enhanced disease platform when compared to Spineless Beauty.

## YELLOW

**Blonde Beauty** has proven itself over the last few year with growers. Growers have commented that it has a very smooth and productive plant with a classic shape.

When choosing a yellow zucchini hybrid, **Golden Glory** should be your go to variety...hands down. Wide-ranging package includes: small petiole spines, open plant, easy twist picking capabilities, and beautiful contrast between dark green handle and splendid dark yellow fruit. Grow Golden Glory in 2021.



**Pete Dinius**  
Product Development

SQUASH		SUMMER OP				
		Days	Harvest Length	Color	Type	Fruit Shape Features
42112	<b>Dark Green Zucchini</b>	62	6 - 7"	Medium Dark Green	Zucchini	Cylindrical <i>Popular, medium dark green variety.</i>
42107	<b>Golden Zucchini</b>	55	6 - 7"	Golden	Golden Zucchini	Cylindrical <i>Has crisp flesh on golden skinned fruit. A good choice for the home gardener.</i>

SQUASH SUMMER OP		Priced per package 4 oz.		
		Priced per pound in these package sizes		
		1#	5#	
42112U	<b>Dark Green Zucchini</b> Untreated	6.65	17.60	17.35
42107U	<b>Golden Zucchini</b> Untreated	9.25	24.40	24.15

NATURAL <sup>TM</sup> APPLICATION RATES	
CROPS	RATE
<b>Cucurbit Vegetables:</b> Pumpkins and Squash	1.0 oz. per 80,000 seeds
<b>Cucurbit Vegetables:</b> Cucumbers and Melons	0.5 oz. per 80,000 seeds
Broccoli, Cabbage and Cauliflower	0.5 oz. per 50,000 seeds
<b>Peppers and Tomatoes:</b> Garlic, Leeks, Onions, Shallots	0.5 oz. per 100,000 seeds
<b>Root Crops:</b> Beets, Sugar Beets, Red Beets, Carrots, Celeriac, Chicory, Horseradish, Parsnip, Radish, Rutabaga, Salsify, Turnips	0.5 oz. per 100,000 seeds

For pricing on Natural<sup>TM</sup> inoculant, see page 125.  
For additional information visit the following website.

[www.ruppseeds.com/Natural](http://www.ruppseeds.com/Natural)

## Biological Enhancement for Vegetables

**Natural<sup>TM</sup>**  
for Vegetables **PB**  
ROOT INOCULANT

- Enhanced root growth
- Healthier plants
- Increased seedling vigor
- Easy to apply
- Higher yields
- Improved nutrient and water efficiency

**ABM<sup>TM</sup>**  
Patent Pending  
Made in U.S.A.

Net Wt. 1 oz.



UGLY DUMPLING **NEW** pg. 105

# SQUASH WINTER

## PLANTING

Plant seeds  $\frac{1}{2}$ " -  $\frac{3}{4}$ " deep. Plant spacing varies depending on vine type. Bush type plants should be planted closer and vine types should be planted farther apart. Squash need to have approximately 25 - 30 sq. ft. See the Winter Squash Planting / Harvest Timing chart on page 102 for additional information.

See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## MANAGEMENT

Scout every 7 days for insect, weed, and disease pressure. Fruit will tend to decrease in size the farther south a crop is planted and increase in size the farther north it is planted. Size is relative to day length.

## HARVEST

Cut off the vine to keep peduncle. Wash in 5% chlorine solution and pat dry. Let cure for 10 days. Keep fruit dry to prevent spoilage. Allow air to circulate around fruit.

## STORAGE

Store at 45 - 55°F and humidity level of 50 - 60%. Keep fruit dry and allow air to circulate around fruit.

## PLANT SPACING

Each variety or type of squash has an optimum plant spacing for its best performance. If plants are too close, stress and competition can decrease fruit size and possibly even reduce the number of female flowers. Under extreme stress, tight spacing may eliminate the crop entirely.

- Accurate plant spacing will be an equal opportunity environment for every plant.
- Suggested populations are for final plant stands.
- To achieve ideal plant populations it is necessary to either over-plant and hand thin or to plant according to recommendations and hand plant later to fill skips.
- Seed corn maggots, wire worms, mice and birds, floods or lack of rain are all common problems that effect accurate stand establishment.

## PLANT SPACING CHART

	Row Width	Distance Between Plants	Plants Per Acre
<b>Compact Bush</b>	5'	2'	4,356
<b>Bush</b>	5'	3'	2,904
<b>Semi Bush</b>	5'	4'	2,178
<b>Restricted Vine</b>	5'	4'	2,178
<b>Vine</b>	5'	5'	1,742





AUTUMN DELIGHT ★



AUTUMN PERFECTION **NEW**



CELEBRATION ★



CREAM OF THE CROP



HARLEQUIN



HEART OF GOLD

SQUASH			WINTER ACORN					Pricing on page 101	
			Days	Fruit Size	Weight pounds	Color	Habit	Features	
★	42311	<b>Autumn Delight</b> <sup>F1 pmt</sup>	80	6 x 5"	1 ½	Dark Green	Semi Bush	A popular, powdery mildew tolerant acorn hybrid. Fruit are large with excellent quality.	
<b>NEW</b>	42308	<b>Autumn Perfection</b> <sup>F1 pmt</sup>	80	6 ½ x 5 ½"	2 - 2 ¼	Dark Green	Bush	Produces slightly larger fruit with improved taste when compared to Autumn Delight as the standard. Features high resistance to powdery mildew and better yields.	
★	42955	<b>Celebration</b> <sup>F1 pmt</sup>	80	4 x 5"	1 ½	Light Yellow / Orange Sutures	Compact Bush	A powdery mildew tolerant, gold striped acorn hybrid with exceptional eating quality. Is also decorative. A sure winner. A Rupp exclusive in cooperation with Cornell University.	
	42304	<b>Cream of the Crop</b> <sup>F1</sup>	85	6 x 5"	1 ½ - 2	Cream	Compact Bush	AAS winner. Unique creamy white fruit. Uniform size.	
	42952	<b>Harlequin</b> <sup>F1 pmt</sup>	80	4 x 5"	1 ½ - 2	Light Green / Dark Green Sutures	Compact Bush	A powdery mildew tolerant, green striped acorn hybrid from Rupp. Has exceptional eating and decorative qualities. A sure winner.	
	42930	<b>Heart of Gold</b> <sup>F1</sup>	80	4 x 5"	3	Cream / Green Stripes	Semi Bush	A winter squash striped like Sweet Dumpling, heart shaped, with fine sweet flesh. Yields have been 35% higher than Sweet Dumpling.	
	42302	<b>Mashed Potato</b>	100	6 x 5"	1 - 1 ½	White	Compact Vine	White acorn with fantastic color holding ability. Flesh is nearly white and resembles mashed potatoes when baked and fluffed. 3 to 4 fruit per plant.	
	42301	<b>Table Ace</b> <sup>F1</sup>	80	6 x 5"	1 ½	Dark Green	Semi Bush	A popular, dark black-green, acorn squash with rounded ribs and blunted blossom ends. It has solid, tasty flesh with almost no fibers or stringiness.	
	42310	<b>Table Star</b> <sup>F1 pmt</sup>	80	6 x 5"	2	Jet Black with a golden star around the stem attachment	Bush	A top selling acorn squash due to its eating quality and powdery mildew tolerance. It is competitive with the best in the market, plus has 50% higher sugars than other acorns.	
	42309	<b>Table Treat</b> <sup>F1</sup>	70	5 ½ x 5"	1 ½ - 1 ¾	Jet Black	Bush	A powdery mildew tolerant acorn hybrid from Rupp that is slightly smaller than Table Star, plus has 50% higher sugars than the comparable acorns. Very good eating quality.	
	42307	<b>Taybelle PM</b> <sup>F1</sup>	80	6 x 5"	2	Jet Black	Bush	A direct conversion from Taybelle to include intermediate resistance to powdery mildew. Sweet flavor and good storage quality.	

SQUASH WINTER ACORN			M=1,000 seeds				
Priced per package		1 oz.	4 oz.				Seeds /lb.
Priced per pound in these package sizes		1#	5#	20#			
42309	<b>Table Treat</b>	10.50	33.00	91.00	90.00	88.50	4,600
Priced per package		250 Seeds					Seeds /lb.
Priced per 1,000 seeds in these package sizes		1M	3M	25M	55M		
42311	<b>Autumn Delight</b>	16.70	44.50	41.50	39.50	38.50	4,300
42311	<b>Autumn Delight</b> <sup>F1400</sup>	17.80	47.45	44.45	42.45	41.45	4,300
42311U	<b>Autumn Delight</b> <sup>Untreated</sup>	16.70	44.50	41.50	39.50	38.50	
42308	<b>Autumn Perfection</b> <sup>F1400</sup>	18.25	48.60	45.60	43.60	42.60	
42955	<b>Celebration</b>	11.65	30.95	27.95	25.95	24.95	4,800
42955	<b>Celebration</b> <sup>F1400</sup>	12.75	33.90	30.90	28.90	27.90	4,800

SQUASH WINTER ACORN			M=1,000 seeds				
Priced per package		250 Seeds					Seeds /lb.
Priced per 1,000 seeds in these package sizes		1M	3M	25M	55M		
42304	<b>Cream of the Crop</b>	13.00	34.60	31.60	29.60	28.60	4,000
42304	<b>Cream of the Crop</b> <sup>F1400</sup>	14.10	37.50	34.50	32.50	31.50	4,000
42952	<b>Harlequin</b>	11.25	29.95	26.95	24.95	23.95	4,400
42930	<b>Heart of Gold</b>	13.10	34.85	31.85	29.85	28.85	4,900
42930	<b>Heart of Gold</b> <sup>F1400</sup>	14.20	37.80	34.80	32.80	31.80	4,900
42302	<b>Mashed Potato</b>	13.75	36.60	33.60	31.60	30.60	5,900
42301	<b>Table Ace</b>	13.95	37.15	34.15	32.15	31.15	4,400
42301	<b>Table Ace</b> <sup>F1400</sup>	15.05	40.10	37.10	35.10	34.10	4,400
42301U	<b>Table Ace</b> <sup>Untreated</sup>	13.95	37.15	34.15	32.15	31.15	4,400
42310	<b>Table Star</b>	10.90	29.05	26.05	24.05	23.05	3,900
42310	<b>Table Star</b> <sup>F1400</sup>	12.00	32.00	29.00	27.00	26.00	3,900
42307	<b>Taybelle PM</b> <sup>F1400</sup>	14.95	39.85	36.85	34.85	33.85	4,300

## GROWER PREFERRED ALL-STARS ★ WINTER SQUASH

These winter squash All-Stars continue to bring growers consistent, predictable performance.

### ACORN

With great dark color, good storage abilities and zero to very little ground spot, **Autumn Delight** is a sure winner for both fresh market and shipper growers.

**Celebration** is a must have for your autumn displays. Color, color, color!

### BUTTERCUP

For that classic look, **Autumn Cup** is your choice. It is a great compliment to Thunder for seasonal markets.

For your storage market, choose **Sweet Mama** for long term keepers.

What can we say about **Thunder** but yield, yield, yield! Sure to put plusses in your income column.

### BUTTERNUT

**Betternut 900** has quickly become the standard in the boxing trade. It also carries other qualities such as taste, sweetness, vitamins, and minerals for today's nutritional needs.

**Ultra** will give you a large yield with huge fruit that work whether you're a processor or fresh market grower.

*George Wonnacott*  
Vegetable Consultant

### DELICATA

**Sweet Lightning** is a great choice when you want great looking fall decoration. When it's cooked it provides the consumer with one of the sweetest eating squash on the market today. A great "dual-purpose" variety.

### HUBBARD

When you want to attract customers to your market, **Blue Hubbard New England** is the one. It exudes great looks, an attractive interior and distinctive hubbard flavor.

### SPAGHETTI

If it's spaghetti squash you're looking for, then **Primavera** is the variety to pick. Uniformity, yield, and great color make this a grower favorite.

### OTHER

**Galeuse d'Eysines** is also known as "The Peanut Squash". Customers can't believe its unusual looks, but they enjoy its delicious squash flavor when fried up in a pan with butter.

**Marina de Chioggia** is a unique green warted squash that adds variety to your fall display, but also eats very well. It was bred for use in gnocchi and ravioli.

**Turk's Turban** adds great fall colors to any decorated area. Customers will ask for this one by name, so be sure to have plenty on hand.

## WINTER SQUASH PLANTING/HARVESTING TIMING CHART

Winter squash growers who are planting multiple varieties need to consider multiple planting dates so that they can harvest their crop at its peak. The planting date plus the maturity of the variety should equal the potential harvest date. Keep in mind that higher or lower than average heat and sunlight may also impact the development of the crop by decreasing or increasing its maturity.

Use the following chart to align your squash variety maturity with your desired harvest date to schedule planting.

Variety Maturity	Planting Date: May 1 Harvest Range	Planting Date: May 15 Harvest Range	Planting Date: June 1 Harvest Range	Planting Date: June 15 Harvest Range	Planting Date: July 1 Harvest Range
<b>70</b>	July 1 - July 20	July 14 - Aug. 3	Aug. 1 - Aug. 20	Aug. 14 - Sept. 3	Aug. 31 - Sept. 19
<b>75</b>	July 5 - July 25	July 19 - Aug. 8	Aug. 5 - Aug. 25	Aug. 19 - Sept. 8	Sept. 4 - Sept. 24
<b>80</b>	July 10 - July 30	July 24 - Aug. 13	Aug. 10 - Aug. 30	Aug. 24 - Sept. 13	Sept. 9 - Sept. 29
<b>85</b>	July 15 - Aug. 4	July 29 - Aug. 18	Aug. 15 - Sept. 4	Aug. 29 - Sept. 18	Sept. 14 - Oct. 4
<b>90</b>	July 20 - Aug. 9	Aug. 3 - Aug. 23	Aug. 20 - Sept. 9	Sept. 3 - Sept. 23	Sept. 19 - Oct. 9
<b>95</b>	July 25 - Aug. 14	Aug. 8 - Aug. 28	Aug. 25 - Sept. 14	Sept. 8 - Sept. 28	Sept. 24 - Oct. 14
<b>100</b>	July 30 - Aug. 19	Aug. 13 - Sept. 2	Aug. 30 - Sept. 19	Sept. 13 - Oct. 3	Sept. 29 - Oct. 19
<b>105</b>	Aug. 4 - Aug. 24	Aug. 18 - Sept. 7	Sept. 4 - Sept. 24	Sept. 18 - Oct. 8	Oct. 4 - Oct. 24
<b>110</b>	Aug. 9 - Aug. 29	Aug. 23 - Sept. 12	Sept. 9 - Sept. 29	Sept. 23 - Oct. 13	Oct. 9 - Oct. 29
<b>115</b>	Aug. 14 - Sept. 3	Aug. 28 - Sept. 17	Sept. 14 - Oct. 4	Sept. 28 - Oct. 18	Oct. 14 - Nov. 3
<b>120</b>	Aug. 19 - Sept. 8	Sept. 2 - Sept. 22	Sept. 19 - Oct. 9	Oct. 3 - Oct. 23	Oct. 19 - Nov. 8

Squash quality will be the best when harvested nearest to the variety's actual maturity.

First, select the maturity of the variety you are using, then pick the date you would like your squash to look the freshest. The required planting date will be at the top of the column.

A  
B  
C  
D  
E  
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W



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TABLE STAR



TABLE TREAT

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AUTUMN CUP ★



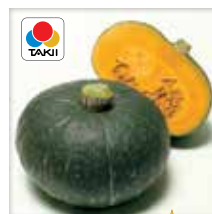
SPACE STATION



SUNSHINE



SUN SPOT



SWEET MAMA ★



THUNDER ★

## SQUASH

## WINTER BUTTERCUP / KABOCHA

		Days	Fruit Size	Weight pounds	Color	Habit	Features
★	42935 <b>Autumn Cup</b> <sup>F1</sup>  	95	6"	4 ½	Dark Green	Semi Bush	The first hybrid, semi bush buttercup squash. Dark green, very high quality flesh and high yields. Has a reduced button when compared to Burgess and is slightly more oval.
	42904 <b>Buttercup Burgess</b>	110	8 - 9 x 5"	3	Dark Green	Vine	Flesh is dry and sweet, good for storage, fresh market or garden.
	42962 <b>Space Station</b> <sup>F1</sup>  	90	7 x 4"	3 ½	Black Green	Semi Bush	A semi bush kabocha hybrid with excellent flesh color and quality. Flesh is very sweet and dry. An upgrade to the long used Sweet Mama.
	42902 <b>Sunshine</b> <sup>F1</sup>	95	7 x 5"	3 - 5	Bright Orange	Vine	Tender flesh is smooth, sweet, and bright orange for baking, mashing, and pies. Appearance and eating quality are superior to other varieties of this type. Average 3 - 4 fruit per plant.
	42966 <b>Sun Spot</b> <sup>F1</sup>  	75	6 x 4"	1 ½	Dark Red	Vine	A dark red buttercup hybrid with excellent dry flesh and fruit size that is desirable for today's small household. Early, dark orange, tasty flesh.
★	42905 <b>Sweet Mama</b> <sup>F1</sup>  	85	8 - 9 x 5"	4	Dark Green	Semi Bush	AAS winner. A kabocha with sweet flavor that stores well.
★	42968 <b>Thunder</b> <sup>F1</sup>  	85	7 x 4"	3 ½	Black Green	Vine	A buttercup (kabocha) hybrid that is an excellent yielder with dry sweet flesh.

## SQUASH WINTER BUTTERCUP / KABOCHA

M=1,000  
seeds

	Priced per package	1 oz.	4 oz.			
	Priced per pound			1#	5#	20#
	in these package sizes					
42927	<b>Baby Delica</b>	28.00	91.00	250.95		
42904	<b>Buttercup Burgess</b>	4.75	13.50	36.85	35.85	34.35
42905	<b>Sweet Mama</b> <sup>F1400</sup>	24.50	79.50	219.30	218.30	216.80

## SQUASH WINTER BUTTERCUP / KABOCHA

M=1,000  
seeds

	Priced per package	250 Seeds				
	Priced per 1,000 seeds		1M	3M	25M	55M
	in these package sizes					
42935 <b>Autumn Cup</b>	23.95	63.75	60.75	58.75	57.75	
42935 <b>Autumn Cup</b> <sup>F1400</sup>	25.05	66.70	63.70	61.70	60.70	
42962 <b>Space Station</b>	33.35	88.90	85.90	83.90	82.90	
42962 <b>Space Station</b> <sup>F1400</sup>	34.45	91.85	88.85	86.85	85.85	
42962U <b>Space Station</b> <sup>Untreated</sup>	33.35	88.90	85.90	83.90	82.90	
42966 <b>Sun Spot</b>	23.40	62.30	59.30	57.30	56.30	
42966 <b>Sun Spot</b> <sup>F1400</sup>	24.50	65.25	62.25	60.25	59.25	
42902 <b>Sunshine</b>	23.75	63.25	60.25	58.25	57.25	
42968 <b>Thunder</b>	25.75	68.60	65.60	63.60	62.60	
42968 <b>Thunder</b> <sup>F1400</sup>	26.85	71.55	68.55	66.55	65.55	





BETTERNUT 23



BETTERNUT 401



BETTERNUT 900 ★










BETTERNUT 1744



BUTTERBABY

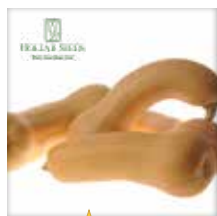


HONEYNUT

SQUASH			WINTER BUTTERNUT					
▲			Days	Fruit Size	Weight pounds	Color	Habit	Features
42613	Avalon <sup>F1</sup>		88	11"	4 - 5	Buff	Vine	<i>This Hollar Seeds butternut is a good packing and high yielding variety.</i>
42606	Betternut 23	<sup>F1 pmt</sup> 	105	12 - 15"	6 - 8	Buff	Vine	<i>Powdery mildew tolerant. Very uniform variety with proportional neck to bulb ratio. Exceptional flesh and skin color. High percentage of dry matter and sugar content.</i>
42614	Betternut 401	<sup>F1 pmt</sup> 	80	8 - 9"	2 ¾	Light Tan	Semi Bush	<i>A hybrid with good flesh color and uniformity on a semi bush plant. Powdery mildew tolerant.</i>
★ 42622	Betternut 900	<sup>F1 pmt</sup> 	80	8 - 9"	3	Light Tan	Semi Bush	<i>Overall best variety in the Betternut series for boxing. Powdery mildew tolerant.</i>
42976	Betternut 1744	<sup>F1 pmt</sup> 	80	8 - 9"	3 ¼	Light Tan	Semi Bush	<i>Slightly larger than Betternut 900 for farm markets and roadside stands. Provides powdery mildew tolerance.</i>
42607	Butterbaby		100 - 105	5 - 6"	½ - 1	Buff	Semi Bush	<i>High eating quality variety that is perfect size for CSA box growers and personal-sized market. Very nice color and shape while maturing earlier than Honeynut. Longer storage ability than Honeynut.</i>
42702	Honeynut		105 - 110	4 - 5"	½ - 1	Dark Tan	Restricted Vine	<i>Produces single-serving squash with very sweet and delicious flavor. Very high yielding.</i>
38518	Neck Pumpkin		120	18 - 24"	10	Light Brown	Vine	<i>Flesh similar to butternut. Can be used for market or processing.</i>
★ 42615	Ultra <sup>F1</sup>		90	15"	10	Light Tan	Vine	<i>A high yielding large butternut for both processors and market gardeners.</i>

SQUASH WINTER BUTTERNUT			M=1,000 seeds				
Priced per package		1 oz.	4 oz.				Seeds /lb.
Priced per pound in these package sizes				1#	5#	20#	
38518	<b>Neck Pumpkin</b>	3.75	11.50	31.10	30.10	28.60	4,000
Priced per package		250 Seeds					
Priced per 1,000 seeds in these package sizes			1M	3M	25M	100M	Seeds /lb.
42613	<b>Avalon</b> <sup>F1400</sup>	16.75	44.65	41.65	39.65	38.65	5,000
42606	<b>Betternut 23</b>	14.20	37.80	34.80	32.80	31.80	5,000
42606	<b>Betternut 23</b> <sup>F1400</sup>	15.30	40.75	37.75	35.75	34.75	5,000
42614	<b>Betternut 401</b>	13.85	36.85	33.85	31.85	30.85	6,000
42614	<b>Betternut 401</b> <sup>F1400</sup>	14.95	39.80	36.80	34.80	33.80	6,000

SQUASH WINTER BUTTERNUT			M=1,000 seeds				
Priced per package		250 Seeds					
Priced per 1,000 seeds in these package sizes			1M	3M	25M	100M	Seeds /lb.
42622	<b>Betternut 900</b>	14.65	38.95	35.95	33.95	32.95	4,600
42622	<b>Betternut 900</b> <sup>F1400</sup>	15.75	41.90	38.90	36.90	35.90	4,600
42622U	<b>Betternut 900</b> <sup>Untreated</sup>	14.65	38.95	35.95	33.95	32.95	4,600
42976	<b>Betternut 1744</b>	13.40	35.65	32.65	30.65	29.65	5,000
42976	<b>Betternut 1744</b> <sup>F1400</sup>	14.50	38.55	35.55	33.55	32.55	5,000
42607	<b>Butterbaby</b> <sup>F1400</sup>	13.50	35.95	32.95	30.95	29.95	5,800
42702	<b>Honeynut</b>	11.35	30.15	27.15	25.15	24.15	
42615	<b>Ultra</b> <sup>F1400</sup>	18.60	49.60	46.60	44.60	43.60	4,500



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JESTER







FESTIVAL



SWEET LIGHTNING ★



UGLY DUMPLING **NEW**

SQUASH		WINTER DELICATA / SWEET DUMPLING					
		Days	Fruit Size	Weight pounds	Color	Habit	Features
42957	<b>Bush Delicata</b> 	105	5 - 6"	2	White / Green Stripes	Bush	An AAS winner bred by Cornell and marketed by Rupp. A typical delicata fruit on a bush plant with strong tolerance to powdery mildew.
42945	<b>Festival</b> <sup>F1</sup>	100	4 - 5"	1 ½ - 2	Yellow Green Orange	Vine	A Carnival type squash with fewer oversized fruit, similar color and flesh quality. Fruit shape is between an acorn and Sweet Dumpling. Highly ornamental with great eating quality.
42933	<b>Jester</b> <sup>F1</sup>	95	5 - 7"	1 ½	Ivory / green inter-rib stripes	Short Vines	Superb flavor with eye-catching fruit. Oval and tapered at both ends, with small to average ribs. Among the best in eating quality. About 60 days storage time.
42911	<b>Sweet Dumpling</b> 	100	4"	1	Cream Striped	Vine	Colorful, acorn shape, sweet flesh. Stores 3 - 4 months.
★ 42501	<b>Sweet Lightning</b> <sup>F1 pmt</sup> 	100	3 x 5"	1 - 1 ¼	Pale Yellow / Orange Stripes	Semi Bush	A Rupp product with both outstanding decorative and eating qualities. Is one of the best flavored when used as a squash. Has powdery mildew tolerance on a semi-bush vine.
<b>NEW</b> 42934	<b>Ugly Dumpling</b> <sup>F1</sup> 	100	2 ½ x 3 ¾"	¾ - 1	Tan / Green Stripes	Semi Bush	While at first glance it may not have great eye appeal, our trial partners tell us its one of the best tasting winter squash they've ever tried, and its unique appearance makes it an option for fall decoration too. Picture on page 105.

SQUASH WINTER DELICATA / SWEET DUMPLING						
Priced per package		1 oz.	4 oz.			
Priced per pound in these package sizes				1#	5#	25#
42945	<b>Festival</b>	12.00	38.25	105.40	104.40	102.90
42911	<b>Sweet Dumpling</b> <sup>F1400</sup>	13.00	41.00	112.85	111.85	110.35
Priced per package		250 Seeds	M=1,000 seeds			
Priced per 1,000 seeds in these package sizes			1M	3M	25M	100M
42957	<b>Bush Delicata</b>	11.35	30.15	27.15	25.15	24.15
42957	<b>Bush Delicata</b> <sup>F1400</sup>	12.45	33.10	30.10	28.10	27.10
42933	<b>Jester</b>	16.25	43.30	40.30	38.30	37.30
42501	<b>Sweet Lightning</b>	19.75	52.55	49.55	47.55	46.55
42501	<b>Sweet Lightning</b> <sup>F1400</sup>	20.85	55.50	52.50	50.50	49.50
42934	<b>Ugly Dumpling</b> <sup>F1400</sup>	20.85	55.50	52.50	50.50	49.50



HEAVENLY  
HUBBARD



#### SAVE WITH CASH DISCOUNTS

Cash discounts are available throughout the season and are a great way to add money to your bottom line. See page 6 for all of the details.

December . . . . .	6%
January . . . . .	5%
February . . . . .	4%
March . . . . .	3%
April . . . . .	2%

SQUASH		WINTER HUBBARD					
		Days	Fruit Size	Weight pounds	Color	Habit	Features
42906	<b>Blue Hubbard</b>	110	7 x 12"	12 - 14	Blue Gray	Vine	A popular hubbard type with thick, orange, fine textured, sweet flavored flesh. Claimed by some to be the best of all hubbards.
★ 42918	<b>Blue Hubbard New England</b>	120	20 - 30"	30 - 45	Blue Gray	Vine	Largest of the hubbards. Flesh is orange with fine texture and flavor. Rupp produced.
42944	<b>Blue Magic</b> <sup>F1</sup>	100	5 x 6"	5 - 7	Blue Gray	Vine	Miniature Blue Hubbard hybrid for those that love the hubbard flavor but are overwhelmed with the normal Blue Hubbard size. Has a true hubbard shape.
42908	<b>Chicago Warted</b>	115	10 x 13"	12 - 14	Green Black	Vine	Large warts, flesh is rich, fine grained and dry. Use for market or garden.
42907	<b>Golden Delicious</b>	100	7 x 14"	10	Red Orange	Vine	Rind is hard and smooth. Flesh is dry, fine grained, and good quality. Used primarily as a processing squash.
42926	<b>Golden Hubbard</b>	110	11 x 9"	10	Orange	Vine	Slightly smaller than most hubbards, slightly warted, orange color with tan stripes toward blossom end.
42909	<b>Green True</b>	105	9 x 12"	12 - 14	Dark Green	Vine	Good shipper and keeper.
42977	<b>Heavenly Hubbard</b> <sup>F1</sup>	100	12 x 15"	15 - 20	Blue Gray	Vine	A Hubbard hybrid with thick, fine textured flesh and sweet flavor.
42919	<b>Uchiki Kuri</b>	90	7 x 7"	2 ½	Orange Red	Vine	Improved smooth Hubbard selection with almost no ribbing on the fruit. Flesh is very sweet and nutty in flavor.

SQUASH WINTER HUBBARD			M=1,000 seeds			
Priced per package		1 oz.	4 oz.			
Priced per pound						
in these package sizes				1#	5#	25#
42912	<b>Baby Green Kitchenette</b>	6.25	20.00	55.00	54.00	52.50
42906	<b>Blue Hubbard</b>	4.25	13.00	35.60	34.60	33.10
<b>Blue Hubbard New England</b>						
42918	<b>England</b>	7.25	22.50	62.05	61.05	59.55
42944	<b>Blue Magic</b>	10.50	33.50	91.75	90.75	89.25
42908	<b>Chicago Warted</b>	4.00	12.50	34.00	33.00	31.50
42907	<b>Golden Delicious</b>	3.75	11.25	30.85	29.85	28.35
42926	<b>Golden Hubbard</b>	4.25	13.00	35.60	34.60	33.10
42909	<b>Green True</b>	4.50	13.75	37.55	36.55	35.05
42919	<b>Uchiki Kuri</b>	12.75	40.50	111.35	110.35	108.85
Priced per package		250 Seeds				
Priced per 1,000 seeds						
in these package sizes			1M	3M	25M	55M
42977	<b>Heavenly Hubbard</b>	41.35	110.25	107.25	105.25	104.25





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SQUASH		WINTER SPAGHETTI				
		Days	Fruit Size	Weight pounds	Color	Habit Features
42950	<b>Pinnacle</b> F1	85	7 x 5"	3	Bright Yellow	Semi-Bush <i>Spaghetti squash with a semi-bush plant habit, that allows higher plant densities and higher yields per acre. Fruit ripen to an appealing bright yellow color. The spaghetti strands are fine and have the nutty flavor of a true Spaghetti Squash.</i>
★ 42946	<b>Primavera</b> F1	90 - 95	5 ½ x 10"	2 ½ - 3	Canary Yellow	Restricted Vine <i>A high yielding Sakata hybrid with good uniformity and attractive color.</i>
42903	<b>Spaghetti</b>	105	8 - 10"	2 ½ - 3	Light Yellow	Vine <i>A uniform, purified strain by Hollar. Is slightly smaller and will be an excellent fit for the commercial grower. Good keeper, low-calorie spaghetti squash. Market or garden.</i>
42981	<b>Vegetable Spaghetti</b>	100	5 ½ x 10"	2 ½	Creamy Yellow	Vine <i>Sakata's popular OP spaghetti squash introduced years ago. Long, oval shaped with noodle-like strands inside when cooked.</i>

SQUASH WINTER SPAGHETTI		M=1,000 seeds				
Priced per package		1 oz.	4 oz.			
Priced per pound in these package sizes				1#	5#	25#
42903	<b>Spaghetti</b>	6.00	19.00	52.35	51.35	49.85
42981	<b>Vegetable Spaghetti</b>	9.00	28.50	78.20	77.20	75.70
Priced per package		250 Seeds				
Priced per 1,000 seeds in these package sizes		1M	3M	25M	Seeds /lb.	
42950	<b>Pinnacle</b> F1400	29.55	78.70	61.95	61.45	2,600
42946	<b>Primavera</b> F1400	25.65	68.30	53.75	53.25	3,500



GALEUSE D'EYSINES ★ TINY TURK

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#### SAVE WITH CASH DISCOUNTS

Cash discounts are available throughout the season and are a great way to add money to your bottom line. See page 6 for all of the details.

December . . . . .	6%
January . . . . .	5%
February . . . . .	4%
March . . . . .	3%
April . . . . .	2%

SQUASH		WINTER OTHER						Pricing on page 108
		Days	Fruit Size	Weight pounds	Color	Habit	Features	
42901	Banana Pink Jumbo	105	20"	15	Pink / Orange	Vine	Thick, fine grained, light orange flesh. Delicious flavor.	
★ 42971	Galeuse d'Eysines <small>Peanut</small>	100	6 ½ x 11"	18	Pink	Vine	A warty squash from France with ornamental value plus delicious when fried in butter.	
42948	Georgia Candy Roaster	110	2 ½ - 3'	up to 60	Pink / Orange	Vine	A long, narrow fruited heirloom that is known for its outstanding baking quality. One of the sweetest and tastiest. Enough for the entire village.	
★ 42970	Marina de Chioggia	100	7 x 11"	11	Green warty	Vine	A unique green warty squash from Italy with ornamental value. Bred to be used in gnocchi and ravioli.	
26024	Tiny Turk	100	4 x 5"	1 ½ - 3	Orange, Green and White	Vine	A smaller selection of Turk's Turban. Used primarily as decoration.	
42938	Tricolor Cushaw	110	Large Curved Neck	5 - 10	Gold / Dark Gold Stripes	Vine	Beautiful bright orange squash. Same flesh qualities as other cushaw types. A resurrected old variety.	
★ 26007	Turk's Turban	100	7 x 8"	3 - 4	Orange, Green and White	Vine	An ornamental and edible squash/gourd. Attractive for displays. Keeps well.	

SQUASH WINTER OTHER						
Priced per package		1 oz.	4 oz.			
Priced per pound in these package sizes				1#	5#	25#
42901	Banana Pink Jumbo	5.50	17.50	47.65	46.65	45.15
42971	Galeuse d'Eysines <small>Peanut</small>	9.30	29.00	79.50	78.50	77.00
42971U	Galeuse d'Eysines <small>Peanut Untreated</small>	9.30	29.00	79.50	78.50	77.00
42948	Georgia Candy Roaster	7.25	23.00	62.90	61.90	60.40
42970	Marina de Chioggia	8.70	27.25	75.10	74.10	72.60
42970U	Marina de Chioggia <small>Untreated</small>	8.70	27.25	75.10	74.10	72.60
26024	Tiny Turk	6.75	21.25	58.40	57.40	55.90
42938	Tricolor Cushaw	6.75	21.50	58.70	57.70	56.20
26007	Turk's Turban	6.00	18.75	51.40	50.40	48.90
42954	Zapalo Plomo	6.75	21.25	58.40	57.40	55.90

## SUNFLOWER & CUT FLOWERS

Pricing on page 109 & 111

▲	Days	Features
47007 <b>Full Sun Improved</b>	60-100	A single stem with dark yellow petals and dark disc, 68 - 84 inches tall. Seed spacing will affect plant height and head size. For shorter stems (6') and smaller heads (5") - plant 4" apart. For taller stems (7-8') and larger heads (7") - plant 6" apart.
47005 <b>Giant Striped</b>	80	Excellent confectionery type variety. Striped, plump seeds are well filled and have thin hulls. 6 - 12' tall. Plant at 3-4 pounds per acre.
47016 <b>Lemon Queen</b>	70	6 - 7' tall with 5" blooms, pale lemon-yellow with dark centers. Free flowering and multiple branched with strong stems are ideal for cut flowers or borders.
47014 <b>Sunspot Dwarf</b>	55	1 - 2' tall with a full size yellow flower of 10". Does well in the garden or in 8 - 10" pots. Large seed.
47015 <b>Velvet Queen</b>	70	5' tall with 5" velvety blooms that are burgundy, chestnut and bronze with a dark center. Well branched, multiple flowered, free flowering plants with strong stems which are ideal for cut flowers or borders.

Additional Cut Sunflowers and Zinnias can be found on the next page --->.

### SUNFLOWER

M=1,000 seeds

Priced per package		1 oz.	4 oz.			
Priced per pound in these package sizes				1#	5#	50#
47005U	<b>Giant Striped</b> Untreated		6.20	11.25	10.75	10.50
47016U	<b>Lemon Queen</b> Untreated	4.70	15.30	43.00	42.00	
47014U	<b>Sunspot Dwarf</b> Untreated	4.70	15.30	43.00	42.00	
47015U	<b>Velvet Queen</b> Untreated	4.70	15.30	43.00	42.00	

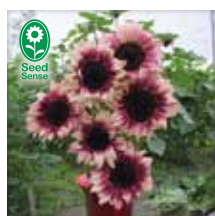


Photo courtesy of Von Bergen's Farm - Hebron, IL





PROCUT BICOLOR **NEW**



PROCUT PLUM



PROCUT RED



PROCUT  
WHITE LITE



PROCUT  
WHITE NITE



PROCUT  
HORIZON



PROCUT  
ORANGE EXCEL



SUNRICH GOLD



SUNRICH LEMON



SUNRICH LIME



SUNRICH ORANGE



SUNRICH  
LIMONCELLO  
SUMMER

## SUNFLOWER & CUT FLOWERS

Pricing on page 109 & 111

		Days	Features	
Cut Flowers				
ProCut Series Sunflowers				
ProCut Series Sunflowers are early maturing, pollenless hybrids. Plants are strong single stems that are 60 - 72" high with 4 - 6" blooms. All of the ProCut varieties are day length neutral.				
NEW	47037	ProCut Bicolor	50-60	When you think about autumn colors you have to include ProCut Bicolor. A splash of bronzy red on orange tipped petals. It is the best single stem cutting bicolor sunflower available to growers.
	47033	ProCut Plum	50-60	Is it pink? Rose? Mauve? Unique plum colored petals.
	47034	ProCut Red	50-60	The latest breakthrough in sunflowers! Deep burgundy colored petals.
	47031	ProCut White Lite	50-60	Lush white petals border a light colored center disc. An excellent choice paired with other flowers in bouquets.
	47032	ProCut White Nite	50-60	White petals with a dark center. With unlimited possibilities. Can even be dyed red and blue for a July 4th vase.
	47036	ProCut Horizon	45-55	A brand new ProCut variety, with rich overlapping orange petals surrounding a traditional dark disc, with perfect upward facing blooms.
	47035	ProCut Orange Excel	45-55	The next generation of ProCut series. Deep orange color with upright flowers.
NEW	47080	ProCut Blend	45-60	A blend of the five most popular ProCut Sunflower Series. Plum, Red, White Nite, Horizon and Orange Excel
Sunrich Series Sunflowers				
	47001	Sunrich Gold	55-70	Sunrich Series Cut Sunflowers. An early, male sterile, pollenless sunflower used exclusively for the cut flower market. A 48" - 60" plant when cut will have a height of 2 - 2 ½ feet, with a 5 - 6" flower. Works best if direct sown with a 5" spacing. Need to keep a dense planting. Over fertilizing will cause the flower to grow too big for floral purposes.
	47002	Sunrich Lemon	55-70	
	47006	Sunrich Lime	55-70	
	47003	Sunrich Orange	55-70	
NEW	47070	Sunrich Blend	50-70	A blend of the five Sunrich Sunflower Series.
	47004	Sunrich Limoncello Summer	50-65	An early variety in the Sunrich series. Flowers 5 to 10 days earlier than the Gold, Lemon and Orange. A unique bi-color flower, vibrant yellow changing to a light, creamy yellow tip.
Zinnia				
NEW	50001	Benary Giant Zinnia Mix	63-70	Undeniably the most eye catching Zinnia mix available for cut flower growers. Vigorous plants producing attractive brightly colored blooms in 12 colors: Lilac, Salmon Rose, Carmine Rose, Golden Yellow, Orange, Deep Red, White, Purple, Bright Pink, Coral, Wine and Scarlet.



**BENARY GIANT** NEW  
MIX



**CELEBRATION**



**SUPER VERDE**



#### SAVE WITH CASH DISCOUNTS

Cash discounts are available throughout the season and are a great way to add money to your bottom line.  
See page 6 for all of the details.

December.....	6%
January.....	5%
February.....	4%
March.....	3%
April.....	2%

SWISS CHARD			
		Days	Features
43006	<b>Celebration</b>	60	A multi-colored chard. It exhibits highly uniform plants with dark green, glossy leaves. It has vibrant multi-colored petioles and venations with high percentage of pink, yellow and orange chards. Great for producing full-sized specialty chard or baby leaf.
43004	<b>Five Color</b> <small>Australian Heirloom</small>	60	Offers growers a rainbow of stem colors: yellow, gold, orange, pink, violet, green, white, red or striped, plus green, dark green or bronze leaf colors. Has improved tenderness and a mild chard flavor. Can be used fresh as a miniature leaf in salads or cooked when more mature.
43002	<b>Rhubarb</b>	60	Unique crimson stalks look like rhubarb. Dark green, heavily crumpled leaves have delicious flavor.

TOMATILLO			
		Days	Features
44530	<b>Super Verde</b>	80	A green hybrid tomatillo that has mid maturity, plus a nice plant with strong vigor and cover. Fruit set is very good and offers improved uniformity, yield potential and longer cycle production. Fruit are firm, have healthy husks, attractive green color and above average shelf life.

SUNFLOWER		M=1,000 seeds		
		500 Seeds		
Priced per package				
Priced per 1,000 seeds in these package sizes			1M	5M
<b>Cut Flowers</b>				
47007U	<b>Full Sun Improved</b> <small>Untreated</small>	25.00	39.50	35.70
47037U	<b>ProCut BiColor</b> <small>Untreated</small>	19.50	30.75	27.85
47036U	<b>ProCut Horizon</b> <small>Untreated</small>	19.50	30.75	27.85
47035U	<b>ProCut Orange Excel</b> <small>Untreated</small>	19.50	30.75	27.85
47033U	<b>ProCut Plum</b> <small>Untreated</small>	22.00	34.75	31.50
47034U	<b>ProCut Red</b> <small>Untreated</small>	22.00	34.75	31.50
47031U	<b>ProCut White Lite</b> <small>Untreated</small>	27.50	43.50	39.40
47032U	<b>ProCut White Nite</b> <small>Untreated</small>	27.50	43.50	39.40
47080U	<b>ProCut Blend</b> <small>Untreated</small>	27.75	44.00	35.20
47001U	<b>Sunrich Gold</b> <small>Untreated</small>	24.00	38.00	34.40
47002U	<b>Sunrich Lemon</b> <small>Untreated</small>	24.00	38.00	34.40
47006U	<b>Sunrich Lime</b> <small>Untreated</small>	24.00	38.00	34.40
47004U	<b>Sunrich Limoncello Summer</b> <small>Untreated</small>	24.00	38.00	34.40
47003U	<b>Sunrich Orange</b> <small>Untreated</small>	24.00	38.00	34.40
47070U	<b>Sunrich Blend</b> <small>Untreated</small>	30.00	47.25	37.80
		250 Seeds		
Priced per package				
Priced per 1,000 seeds in these package sizes			1M	5M
<b>Zinnia</b>				
50001U	<b>Benary Giant Zinnia Mix</b> <small>Untreated</small>	16.50	33.00	29.95

SWISS CHARD		M=1,000 seeds			
		4 oz.			
Priced per package					
Priced per pound in these package sizes			1#	5#	25#
43004U	<b>Five Color</b> <small>Untreated</small>	12.35	32.25	32.00	31.50
43002U	<b>Rhubarb</b> <small>Untreated</small>	6.75	17.55	17.30	16.80
		10M	25M	250M	1000M
43006	<b>Celebration</b>	3.65	3.40	3.25	3.15

TOMATILLO		M=1,000 seeds					
		100 Seeds	500 Seeds				
Priced per package							
Priced per 1,000 seeds in these package sizes				1M	5M	25M	100M
44530	<b>Super Verde</b>	4.30	14.25	22.80	19.80	18.00	17.10

# TOMATOES

## PLANTING

Sow in greenhouse 4 - 6 weeks before desired planting date. Allow plants to adjust to field conditions for 48 hours before transplanting. Plant transplants up to 6 inches deep.

See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## MANAGEMENT

Staking and pruning plants are an important management practice. Staking and pruning allows the plant to concentrate on fruit development and also ensures less damage when harvesting fruit. Staking also keeps fruit from setting on the ground. Grow plants on raised beds with drip irrigation. Scout weekly to ensure crop quality. Consult Midwest Vegetable Production Guide on identification and treatment.

[www.ruppseeds.com/MVPG](http://www.ruppseeds.com/MVPG)

## HARVEST

Harvest tomatoes when 60 - 90% red for fresh markets. Consult your buyers on what stage they would like their tomatoes harvested. However, please note that the more red the tomato the shorter the shelf life.

## STORAGE

Store at 50 - 60°F and 85 - 95% humidity to ensure the longest shelf life.

## DISEASE CODES

ASC - Alternaria Stem Canker  
BLS - Bacterial Leaf Spot  
BS - Bacterial Spec  
BW - Bacterial Wilt  
EB - Early Blight  
FCR - Fusarium Crown Rot  
Ff - Leaf Mold  
FR - Fusarium Race #  
GLS - Gray Leaf Spot  
N - Nematodes  
PM - Powdery Mildew  
PVY - Potato Virus Y  
TMV - Tobacco Mosaic Virus  
ToMV - Tomato Mosaic Virus  
TYLC - Tomato Yellow Leaf Curl  
SW - Spotted Wilt  
SBW - Southern Bacterial Wilt  
VW - Verticillium Wilt

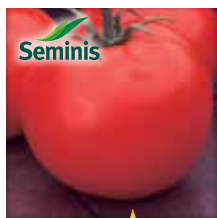
## USE

BP - Bedding Plant  
HG - Home Garden  
FM - Fresh Market  
S - Shipping  
P - Processing

## TERMS

GS - Green Shoulders  
LGS - Light Green Shoulders when ripe  
UG - Uniform Green Gene ripe fruit are a uniform color  
DT - Determinate restricted vine or bush  
INDT - Indeterminate vining type used primarily in home gardens





CELEBRITY★



BHN-964★



CAROLINA GOLD★



DIXIE RED↗



FLORIDA 47 R



FLORIDA 7514

TOMATO		HOME GARDEN / BEDDING Hybrid							
		Days	Use	Weight ounces	Shoulders	Shape	Habit	Disease	Features
44002	<b>Better Boy</b>	75	HG	8	GS	C	INDT	ASC, FR <sup>1</sup> , GLS, N, VW	Widely adapted.
44076	<b>Big Beef</b> 🌱	73	HG	10 - 12	GS	D	INDT	ASC, FR <sup>1,2</sup> , N, TMV, VW	AAS winner with an excellent name that will assure its place in the home garden. High yield, attractive.
44003	<b>Big Boy</b> Burpee's	78	HG	12	GS	C	INDT		Large, popular home garden.
★ 44006	<b>Celebrity</b>	72	FM, HG	8	GS	D	DT	ASC, FR <sup>1,2</sup> , GLS, N, TMV, VW	AAS winner. Excellent flavor.
44035	<b>Early Girl</b>	60	HG	4 - 6	GS	B	INDT	VW	Popular, early home garden variety.

TOMATO			FRESH MARKET Hybrid						Pricing on page 115	
	▲		Days	Use	Weight ounces	Shoulders	Shape	Habit	Disease	Features
★	44214	BHN-964	76	FM, S	10	UG	C	DT	FR, TMV, VW	A variety with early blight tolerance. Possesses beautiful shoulders and excellent interior flesh quality. Sets well in the heat.
★	44126	Carolina Gold 🏡	75	HG, FM	10 - 12	GS	C	DT	FR <sup>1,2</sup> , VW	A yellow hybrid from Syngenta and North Carolina State University with very small blossom scar, tolerance to cracking and weather check.
🚒	44028	Dixie Red 🌊	85	FM, S	11	UG	C	DT	ASC, FR <sup>1,3</sup> , GLS, N, SW, VW	A Seminis product, produces a continuous set of larger fruit up the plant. This strong yielder has intermediate resistant to Root-knot nematodes. Its hot set capabilities make it ideal for southern growers during the main season. It can be used as a vine ripe or gas green variety.
	44120	Florida 47 R	75	S	10	UG	C	DT	ASC, FR <sup>1,2</sup> , GLS, VW	A Seminis hybrid with exceptional firmness and fruit quality.
	44159	Florida 7514 🍷	75	FM, S	10	UG	C	DT	BS, BW, FR <sup>1,2</sup> , GLS, VW	A University of Florida hybrid with excellent disease resistance, fruit qualities, yield, plus good crack resistance and great flavor.
	44045	Grand Marshall	78	FM, S	9 - 10	UG	C	DT	ASC, FR <sup>1,2</sup> , GLS, TYLC, VW	Vigorous hot set variety with extra-large and large, firm fruit. Pruning is beneficial at a low to medium level. Strong plant and good field performance under bacterial pressure.
Additional Fresh Market Tomatoes can be found on the next page --->.										

Additional Fresh Market Tomatoes can be found on the next page --->.

TOMATO HOME GARDEN/BEDDING Hybrid							
Priced per package		100 Seeds	500 Seeds	M=1,000 seeds			
Priced per 1,000 seeds in these package sizes				1M	5M	25M	100M
44002	<b>Better Boy</b>	5.90	22.60	36.10	31.35	28.50	27.10
44076	<b>Big Beef</b>	7.55	28.85	46.10	40.05	36.40	34.65
44003	<b>Big Boy</b> Burpee's	5.65	21.60	34.50	30.00	27.25	25.95
44036U	<b>Blush</b> Untreated	6.15	23.60	37.75	32.80	29.80	28.35
44006	<b>Celebrity</b>	7.30	28.00	44.80	38.95	35.40	33.70
44035	<b>Early Girl</b>	6.30	24.10	38.55	33.50	30.45	29.00



GRAND MARSHALL



KATANA



LAGUNA RED



MOUNTAIN MAN NEW



MOUNTAIN SPRING ★



RED SNAPPER NEW ★

## GROWER PREFERRED ALL-STARS ★ TOMATOES

### LARGE ROUNDS

**BHN-964** is a great tomato for the grower who wants the perfect combination of excellent flavor and high yield potential.

**Carolina Gold** is the choice for tomato growers looking for a large yellow hybrid. Carolina Gold produces large fruit with a small stem scar and a very nice yellow/gold color.

Growers looking for good vine ripe flavor and quality fruit still turn to longtime favorite, **Celebrity**.

**Mountain Spring** has been a favorite of tomato growers for a long time. Fruit size is consistently large and the maturity is mid-season. Mountain Spring can be used in both open field and high tunnel applications.

**Red Snapper** is a new versatile large round tomato from Sakata. It works equally well as a mature green and vine ripe. I really like the quality and the way it holds its size throughout the growing season.

*Dave Silveus*  
Vegetable Consultant

**Roadster** is the variety for the grower needing a high quality round tomato. It has great flavor, fantastic crimson interior, and 2nd early maturity.

**Skyway 687** has quickly become a grower preferred variety for its excellent interior color, firmness and eating quality. It has a strong plant that provides consistent sized fruit up the plant.

### ROMA

**Mariana** is a great choice for your Roma tomato needs. Mariana produces a large number of medium sized fruit on a medium sized plant. Mariana has been a favorite with growers for years.

## TOMATO

## FRESH MARKET Hybrid

Pricing on page 115

		Days	Use	Weight ounces	Shoulders	Shape	Habit	Disease	Features
44046	<b>Katana</b>	75	FM	9 - 10	UG	C	Semi DT		Beefsteak type hybrid that produces uniform, large and firm fruit. Tight blossom end and smooth shoulders. Continuous setting ability which translates to high yields.
44061	<b>Laguna Red</b>	70	FM, S	8 - 12	UG	C	DT	ASC, FR <sup>1,2</sup> FCR, ToMV <sup>0,1</sup> VW <sup>1</sup>	A high quality determinate variety well suited for cool season production. Fruit are an attractive red, firm and smooth-shouldered with good flavor. Suited for both mature green and vine ripe markets. Medium tall plants that benefit from light pruning, and a mid-concentrated set.
<span style="background-color: red; color: white; border-radius: 50%; padding: 2px;">NEW</span> 44071	<b>Mountain Man</b>	70	FM	10-12	UG	C	DT	SW	Mountain Man is a fresh market tomato ideal for the eastern summer production season. The strong plant type produces extra-large fruit with delicious flavor that keeps customers happily returning.
<span style="color: gold;">★</span> 44067	<b>Mountain Spring</b>	70	FM, S	10	UG	C	DT	FR <sup>1,2</sup> , VW	A superior market hybrid.
<span style="background-color: red; color: white; border-radius: 50%; padding: 2px;">NEW</span> <span style="color: gold;">★</span> 44063	<b>Red Snapper</b>	70	FM, S	8 - 12	UG	C	DT	ASC, FR <sup>1,2</sup> FCR, ToMV <sup>0,1</sup> VW <sup>1</sup>	A high quality determinate variety well suited for cool season production. Fruit are an attractive red, firm and smooth-shouldered with good flavor. Suited for both mature green and vine ripe markets. Medium tall plants that benefit from light pruning, and a mid-concentrated set.
<span style="color: gold;">★</span> 44048	<b>Roadster</b>	70	FM, S	8 - 12	UG	C	DT	ASC, FR <sup>1,2,3</sup> , TSWV, VW	High quality variety with large sized fruit. Fruit are attractive red, very firm and smooth-shouldered. Medium tall plants and benefit from light pruning.
44201	<b>Rocky Top</b>	70	FM, S	9 - 10	UG	C	DT	GLS, VW	A Syngenta hybrid with fruit that are very firm, with dark red interior. Proven to perform well in the field and excellent in the high tunnels.



ROADSTER ★



SAYBROOK NEW



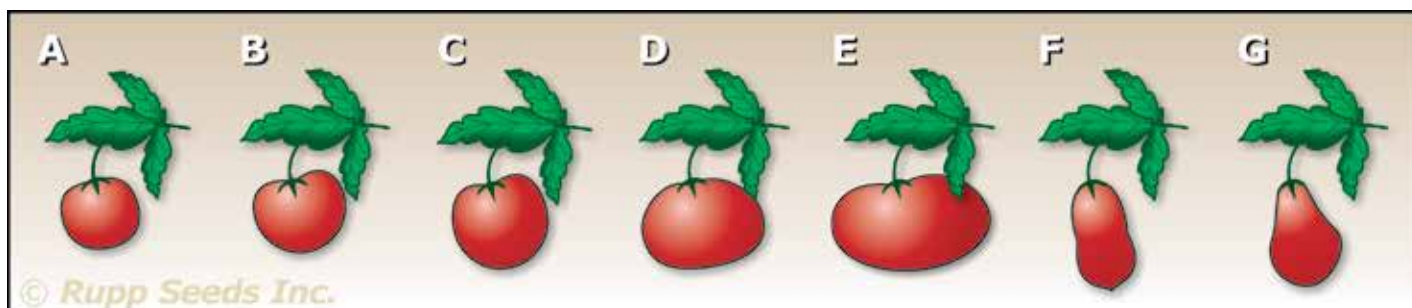
SKYWAY 687 ★



SUMMERPICK

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ruppseedinc/



TOMATO		FRESH MARKET Hybrid							Pricing on page 115
		Days	Use	Weight ounces	Shoulders	Shape	Habit	Disease	Features
NEW	44057 Saybrook	80	FM, S	10	UG	C	DT	SW, GLS, VW, N	Saybrook is a determinate round tomato that is ideal for both the vine ripe and mature green market. The vigorous plant type produces a large set of extra-large smooth fruit all the way to the top of plant with good canopy cover to help reduce the risk of sunscald.
★	44022 Skyway 687	75	FM	11	UG	C	DT	FR <sup>1-3</sup> , N, SW, TYLC	With excellent interior color, firmness and good eating quality, it has a strong plant that provides consistent sized fruit up the plant. Fruit size is extra-large to jumbo.
	44029 SummerPick	72	FM	11	UG	D	DT	FR <sup>1-3</sup> , GLS, SW, VW	A classic vine ripe variety well-suited for warm transplanting slots. Flavorful with attractive, smooth, uniform appearance. Wide adaptability and consistent performance.

TOMATO FRESH MARKET Hybrid			M=1,000 seeds			
Priced per package	100 Seeds	500 Seeds	1M	5M	25M	100M
Priced per 1,000 seeds in these package sizes						
44188P BHN-602 Pelleted	16.15	61.95	103.25	93.85	89.35	85.05
44214P BHN-964 Pelleted	14.15	54.30	90.50	82.25	78.30	74.55
44012P Brickyard Pelleted	5.70	21.85	36.40	33.05	31.45	29.95
44126P Carolina Gold Pelleted	10.10	38.75	64.55	58.65	55.85	53.15
44028P Dixie Red F300 Pelleted	16.50	63.35	105.55	95.95	91.35	87.00
44206 Finishline	13.45	51.65	86.05	78.20	74.45	70.90
44120P Florida 47 R Pelleted	14.85	57.10	95.15	86.50	82.35	78.40
44159 Florida 7514	8.25	31.60	52.60	47.80	45.50	43.30
44045 Grand Marshall	16.55	63.50	105.80	96.15	91.55	87.15
44046 Katana	19.85	76.20	126.95	115.40	109.90	104.65
44061P Laguna Red Pelleted	16.65	63.90	106.50	96.80	92.15	87.75
44071 Mountain Man	9.95	38.25	63.75	57.95	55.15	52.50
44197P Mt. Glory Pelleted	6.00	23.00	38.30	34.80		
44067 Mt. Spring	7.75	29.70	49.45	44.95	42.80	40.75

TOMATO FRESH MARKET Hybrid			M=1,000 seeds			
Priced per package	100 Seeds	500 Seeds	1M	5M	25M	100M
Priced per 1,000 seeds in these package sizes						
44067P Mt. Spring Pelleted	8.15	31.20	52.00	47.25	45.00	42.85
44044 Pink-a-licious	60.50	232.60	387.60	352.35	335.55	319.55
44063P Red Snapper Pelleted	18.65	71.55	119.25	108.40	103.20	98.25
44014P RidgeRunner Pelleted	13.05	50.10	83.50	75.90	72.25	68.80
44048P Roadster Pelleted	16.65	63.90	106.50	96.80	92.15	87.75
44201P Rocky Top Pelleted	11.45	44.00	73.30	66.60	63.40	60.35
44057P Saybrook Pelleted	15.85	60.90	101.45	92.20	87.80	83.60
44161P Sebring Pelleted	6.00	23.00	38.30	34.80	33.10	31.50
44022P Skyway 687 Pelleted	15.10	58.00	96.65	87.85	83.65	79.65
44029P SummerPick Pelleted	12.55	48.20	80.30	73.00	69.50	66.15
Surplus List						
44183 Mr. Ugly	5.25	20.10	33.50	30.45	29.00	
44150 Sunguard	5.25	20.10	33.50	30.45	29.00	
44023P Sunkeeper Pelleted	5.25	20.10	33.50	30.45	29.00	

\* Multiple packages may be used to fill orders for these quantities.





BHN-268



CHOCOLATE  
SPRINKLES



RUBY CRUSH



SWEET CANARY



SWEET HEARTS



TIDY TREATS

TOMATO		CHERRY Hybrid					
		Days	Weight ounces	Shape	Habit	Disease	Features
44140	<b>BHN-268</b>	68	0.9	Globe	DT	FR <sup>2</sup> , VW	Longer shelf life, increased firmness, and a fraction smaller than other hybrids. Ships extremely well. Fewer picks of higher color fruit. Yields are unbelievable.
44059	<b>Chocolate Sprinkles</b> 🌱	55	.4 - .5	Globe	INDT	FR <sup>1</sup> , N	Heirloom flavor and appearance with a modern disease package and firm texture. Performs well in high tunnel and open field. Unique dark red fruit with a green striped exterior and purple flesh color.
44165	<b>Red Grape</b>	68	.3 - .5	Grape	INDT		A superior flavored grape tomato from D. Palmer Seed with firm, excellent shaped red fruit.
44047	<b>Ruby Crush</b>	65	.4 - .5	Grape	DT	FCR, FR <sup>1,2</sup> , ToMV <sup>0,2</sup> , GLS	Deep red fruit that are very smooth, uniform and firm with a good flavor profile. Limited to no pruning necessary. High yield potential.
44156	<b>Sweet Canary</b> 🌱	62	0.5	Grape	SEMI-DT		Semi-determinate yellow grape with deep yellow color and firm texture. Can be used in open field or protected culture. Fantastic flavor.
44199	<b>Sweet Hearts</b>	60	.4 - .5	Grape	INDT	Ff, Fol, ToMV <sup>0,2</sup>	Hybrid from Sakata with excellent crack resistance, shelf life, high Brix and yields. Sets under cooler conditions than most grapes.
44049	<b>Tidy Treats</b>	50-55		Cherry	DT	FR, VW	Tons of fruit on a compact plant. Good in small-space gardens and containers.
Open Pollinated							
<b>NEW</b>	44068 <b>Artisan Bumble Bee Mix</b>	70			INDT		A mix of 3 colors of Bumble Bee Cherry Tomatoes. Pink, Purple and Sunrise, which is yellow with red stripes. Excellent sweet and tangy flavor, 0.7-0.8 oz fruit

TOMATO CHERRY Hybrid		M=1,000 seeds			
	Priced per package	100 Seeds	500 Seeds	1M	5M
44030	<b>Aligote</b>	32.40	107.50	179.15	170.90
44140P	<b>BHN-268</b> Pellet	42.05	139.65	232.75	221.65
44043	<b>Braveheart</b>	8.60	31.85	50.95	44.30
44059	<b>Chocolate Sprinkles</b>	23.75	78.75	131.25	125.20
44223	<b>Montesino</b>	27.60	91.55	152.55	145.55
44165	<b>Red Grape</b>	27.45	91.10	151.80	144.80
44047	<b>Ruby Crush</b>	34.05	113.05	188.40	179.75
44156	<b>Sweet Canary</b>	27.35	90.85	151.40	144.45
44199	<b>Sweet Hearts</b>	53.15	176.50	294.10	280.05
44222	<b>Sweet Treats</b>	50.85	168.85	281.35	267.95
44049	<b>Tidy Treats</b>	12.75	42.35	70.55	67.30
44225	<b>Toronjina</b>	27.90	92.65	154.35	147.25

\* Multiple packages may be used to fill orders for these quantities.

TOMATO CHERRY Open Pollinated		M=1,000 seeds			
	Priced per package	100 Seeds	500 Seeds	1M	5M
44068	<b>Artisan Bumble Bee Mix</b>	8.40	31.00	49.55	43.05

TOMATO GREENHOUSE		M=1,000 seeds		
	Priced per package	100 Seeds	500 Seeds	1M
44026	<b>Caiman</b>	31.50	121.15	201.90
44198	<b>Arnold Rootstock</b>	42.35	162.70	271.15
* Multiple packages may be used to fill orders for these quantities.				
Other Tomatoes & Cucs for greenhouse production are available. Ask us.				

TOMATO PROCESSING/SALADETTE Hybrid		M=1,000 seeds					
	Priced per package	100 Seeds	500 Seeds	1M	5M	25M	100M
44187P	<b>BHN-685</b> Pelleted	15.15	58.10	96.80	88.00	83.80	79.80
44062P	<b>BHN-1045</b> Pelleted	15.15	58.10	96.80	88.00	83.80	79.80
44041P	<b>Daytona</b> F300 Pelleted	12.35	47.40	79.00	71.80	68.35	65.05
44176P	<b>Mariana</b> Primed Pelleted	12.85	49.40	82.30	74.80	71.20	67.80
44224P	<b>Monticello</b> Pelleted	12.25	47.05	78.40	71.25	67.85	64.60
44091	<b>San Marzano</b>	13.55	52.00	86.65	78.75	75.00	71.40
Special Value Priced: Roma Types for either Bedding Plants or Market. Excellent substitute for either Roma Hybrid or Hybrid 882							
44208P	<b>BHN-783</b> Gold Roma Pelleted	5.00	19.15	31.90	29.00		
44168	<b>Sunoma</b>	2.60	9.90	16.50			
* Multiple packages may be used to fill orders for these quantities.							



ARTISAN BUMBLE BEE MIX



CAIMAN



DAYTONA




MARIANA ★



MONTICELLO



SAN MARZANO

TOMATO		GREENHOUSE 				
▲	Use	Weight ounces	Shape	Disease	Features	
44026	<b>Caiman</b>	Greenhouse	8 - 9	Round Beef	Ff <sup>1-5</sup> , FR <sup>0-1</sup> , SWVa, ToMV, Vd	<i>A large round beef tomato with a medium-vigorous plant and an open plant habit. Good fruit set under hot conditions; very productive. Average fruit weight exceeds 8.8 oz.</i>
44198	<b>Arnold Rootstock</b>	Cold Greenhouse & Tunnels				<i>Germinates extremely well. Arnold has a more generative effect on the plant and is therefore suitable for vigorous varieties, late plantings in the spring or in vegetative conditions; such as with growers that produce without heat to save energy. Slightly more open plant than Maxifort.</i>

TOMATO		PROCESSING / SALADETTE Hybrid						
▲		Days	Use	Weight ounces	Shape	Habit	Disease	Features
44062	BHN-1045	75	FM, S	4	F	DT	FR <sup>1,2,3</sup> N, SW, TYLC, VW	The newest BHN Roma release. BHN1045 has uniform large fruit and a deep blocky shape. A strong determinate plant with an excellent disease package. An all-around improved BHN410.
44041	Daytona 🌐	74	FM, S	4 - 5	F	DT	ASC, FR <sup>1,2</sup> , TYLC, VW <sup>1</sup>	Widely adapted variety with excellent yield potential and quality. Productive plants produce smooth, extra large fruit, with good color, firmness and shelf life. Similar to Mariana with the addition of intermediate resistance to Tomato Yellow Leaf Curl Virus.
★ 44176	Mariana	74	FM	4 - 5	F	DT	ASC, FR <sup>1,2</sup> , N, VW	A blocky, Roma type with thick walls and very good external and internal fruit color. Excellent firmness and shelf life.
44224	Monticello	74	FM	4 - 5	F	DT	ASC, FR <sup>1,2</sup> , N, VW	High disease package. Suitable for the northern and central growing regions of the Eastern U.S.
44091	San Marzano	61	FM	3.8	F	INDT		A step above your typical Roma with high yields. Classic Italian flavor with an extra kick! Great in sauces and baked dishes.

TURNIPS / RUTABAGA		Days	Features
45903	<b>Laurentian</b> <small>Rutabaga</small>	90	A dependable, yellow-fleshed rutabaga for storage and shipping. Selected for its sweet flavor and small necks.
45501	<b>Purple Top White Globe</b>	57	Smooth, globe-shaped, purple topped with, white globe beneath 5 - 6" fruit with white, fine grained flesh.
45001	<b>Tokyo Cross</b> <sup>F1</sup>	35	A very early, perfect globe shaped root. Can be harvested from 2 - 6" without risk of getting pithy.

TURNIPS / RUTABAGA					
		Priced per package		1 oz. 4 oz.	
		Priced per pound in these package sizes		1#	5# 50#
45903	<b>Laurentian</b> <small>Rutabaga</small>	3.50	12.10	33.80	32.80
45501U	<b>Purple Top White Globe</b> <small>Untreated</small>	6.20	15.20	14.70	14.20
45001	<b>Tokyo Cross</b>	20.45	71.10	198.80	197.80



ESTRELLA ★ pg. 119

# WATERMELON

## PLANTING

Start in the greenhouse and allow 28 - 35 days to get plants ready to transplant. Excessive water during germination must be avoided. Water transplant growing medium well and allow excess moisture to drain and moisture to stabilize for 24 - 48 hours. Bring medium temperature to 80 - 95°F before seeding. Seedcoat adherence to cotyledons may be virtually eliminated by orienting the seed in transplant trays with the pointed end up at a 45° to 90° angle. Plant transplants 6 - 12 feet apart with 36" between plants.

See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.

## MANAGEMENT

Scout fields every 7 days to monitor weed, insect, and disease pressure. Place pollinating insects near the field to ensure proper pollination. Water only if necessary. Do not over-water.

## HARVEST

Ripeness is indicated by a cream to slight yellowing of the white background color of the part of the melon that rests on the ground. Drying of the stem tendril nearest the attachment point of the watermelon and green color tone of the rind are also indicators of ripeness but these vary with cultivar. Melons should be cut from the vine rather than pulled, twisted, or broken off.

## STORAGE

Store at 50 - 60°F and at a humidity level of 90 - 95%. This will ensure a long shelf life.

## DISEASE CODES

A - Anthracnose  
F - Fusarium  
GSB - Gummy Stem Blight





ESTRELLA ★



SANGRIA



JADE STAR



YELLOW DOLL

WATERMELON		LARGE Hybrid							
▲		Days	Shape	Weight pounds	Rind Type	Flesh Color	Seed Size	Disease	Features
★	46041 <b>Estrella</b>	80	Long Blocky	20 - 24	Allsweet	Bright Red	Small	A, F	<i>Excellent flavor and texture. Plants are typically vigorous with large leaves. Uniform fruit.</i>
	46030 <b>Sangria</b>	85	Elongated	18 - 22	Allsweet	Bright Red	Large	A, F	<i>Good field performance with excellent taste.</i>

WATERMELON		ICEBOX							
▲		Days	Shape	Weight pounds	Rind Type	Flesh Color	Seed Size	Disease	Features
	46051 <b>Jade Star</b> <small>Pata Negra</small>	80	Round Oval	15	Dark Green / Faint Stripes	Intense Red	Small	F <sup>1</sup>	<i>An improved Sugar Baby type hybrid with brighter, sweeter flesh and a better vine. For fresh market.</i>
	46005 <b>Yellow Doll</b>	68	Oval	5 - 7	Medium Green / Dark Stripes	Yellow	Small		<i>Unusual, very sweet home garden hybrid. Crisp flesh.</i>

WATERMELON LARGE Hybrid		M=1,000 seeds			
Priced per package		250 Seeds			
Priced per 1,000 seeds in these package sizes			1M	5M	10M*
46041	<b>Estrella</b>	35.25	90.85	85.85	80.85
46030	<b>Sangria</b>	37.35	96.35	91.35	86.35
<b>Surplus List</b>					
46006	<b>Early Slicer</b>	16.30	42.05	37.05	32.05
*NOTICE WATERMELON GROWERS: Customers are required to sign a "Waiver of Liability" form, prior to the shipping of any watermelon seed.					
* Multiple packages may be used to fill orders for these quantities.					

WATERMELON ICEBOX		M=1,000 seeds			
Priced per package		250 Seeds			
Priced per 1,000 seeds in these package sizes			1M	5M	10M*
46051	<b>Jade Star</b>	36.95	94.70	93.70	92.70
46005	<b>Yellow Doll</b>	39.00	99.95	98.95	97.95
* Multiple packages may be used to fill orders for these quantities.					



## DOCUMENTS REQUIRED

Various products in our catalog require signed documents before seed can be shipped.

Look for this document icon with a page number. This will guide you to the page with the appropriate document for the product you are purchasing.



FASCINATION ★ pg. 121

# WATERMELON SEEDLESS

## PLANTING

Start in the greenhouse. Allow 28 - 35 days to get plants ready to transplant. Excessive water during germination must be avoided. Water transplant growing medium well and allow excess moisture to drain and moisture to stabilize for 24 - 48 hours. Bring medium temperature to 80 - 95°F before seeding. Seedcoat adherence to cotyledons may be virtually eliminated by orienting the seed in transplant trays with the pointed end up at a 45° to 90° angle. Plant transplants 6 - 12 feet apart with 36" between plants.

As a general rule, direct field seeding of the pollinizer variety should be done on the same day the triploid seed is planted in the greenhouse. Small-fruited, icebox varieties usually flower earlier than standard watermelon varieties. If icebox varieties are to be used as the pollinizer, then direct seeding should be delayed a week to ten days. The diploid icebox pollinizer variety will frequently set fruit and stop producing male blossoms while the triploid variety is still producing female blossoms. Growers may make a second planting of a pollinizer 2 - 3 weeks after the initial planting to provide pollen for the late-developing female

blossoms on the triploid variety. No consistent differences among any standard and icebox types in effectiveness of pollination have been noted. Icebox varieties used as pollinizers result in high early yields; standard varieties used as pollinizers result in high total yields.

*See "Germination Chart" on page 127 for additional information on germination rate and days to germination at various soil temperatures.*

## MANAGEMENT

For successful seedless watermelon production, an adequate bee population is especially important to transfer the pollen from the pollinizer variety to the seedless variety (seedless watermelons do not produce pollen). The pollinizer variety is normally planted in alternate, or every third row to ensure adequate pollen movement by the bees. At least eight visits to an individual flower of the seedless variety are necessary for adequate hormonal stimulation for normal fruit development. Scout fields very 7 days to monitor weed, insect, and disease pressure.

## HARVEST

Ripeness is indicated by a cream to slight yellowing of the white background color of the part of the melon that rests on the ground. Drying of the stem tendril nearest the attachment point of the watermelon and green color tone of the rind are also indicators of ripeness but these vary with cultivar. Melons should be cut from the vine rather than pulled, twisted, or broken off.

## STORAGE

Store at 50 - 60°F and at a humidity level of 90 - 95%. This will ensure a long shelf life.



BOLD RULER



FASCINATION ★



JOY RIDE








MELODY



ORANGE CRISP



SWEET DAWN ★

WATERMELON		TRIPLOID Hybrid					Pricing on pages 123
		Days	Shape	Weight pounds	Rind Type	Flesh Color	Features
46001	<b>Bold Ruler</b> 	83	Round / Oval	16 - 18	Crimson Sweet	Bright Red	<i>A high quality seedless with early set in cool conditions. Very high yield and excellent fruit uniformity. Must be planted with an early pollinator like Ace Plus.</i>
★ 46140	<b>Fascination</b> 	85	Blocky	17 - 21	Crimson Sweet	Dark Red	<i>A variety with very firm, high quality flesh with small pips. Exhibits improved disease tolerances to Fusarium and Anthracnose.</i>
46026	<b>Joy Ride</b> 	86	Oblong	19 - 20	Mottle Stripe	Dark Red	<i>Highly adaptable and suitable hybrid for growing across all regions of the country. Produces a large percentage of 36-count watermelons. Offers a thick rind and firm fruit with uniform setting. Has a vigorous plant type with good canopy coverage. Has shown a high, industry leading average degrees Brix of 11.5 in trials, surpassing all comparable varieties.</i>
46134	<b>Melody</b> 	80	Globe	14 - 16	Allsweet	Dark Red	<i>Offers growers the advantage of an early maturing hybrid, with a heavy, concentrated and uniform fruit set.</i>
46007	<b>Orange Crisp</b> 	92	Round / Oval	14 - 18	Jubilee	Orange	<i>The melons hold up for a very long time in and out of the field. Very crisp and firm flesh. Yellow-orange flesh turns more orange as it matures and the taste improves with time. Don't pick too early!</i>
★ 46102	<b>Sweet Dawn</b> 	76	Blocky	16 - 20	Crimson Sweet	Dark Red	<i>Early variety that produces consistently high yields, offering growers significant first to market advantages. Firm and sweet flesh are ideal for retail markets.</i>

Additional Triploid Watermelons can be found on the next page --->.

## GROWER PREFERRED ALL-STARS ★ WATERMELON

### LARGE SEEDED

**Estrella**, is early (80 days) with excellent flavor and texture, nice consistently blocky fruit that has a great look at the market.

### TRIPLOID

**Fascination** is the #1 planted variety in the Eastern US for good reasons: high quality interior and a rich non-fading rind color combined with yield and tolerance to Fusarium and Anthracnose. It provides the flavor that your customers demand. Fascination should be part of any size operation.

**Sweet Dawn**, Great eating quality in an early season seedless. More consistent size and shape as compared to Melody. Will get you to the marketplace a week earlier than Fascination. This is the melon that I go out and pick when we need one for our own table.

**Sweet Gem** is a great eating seedless with a "Black Diamond" look and superior flavor that will set your crop apart in the marketplace.



**Brad Paulson**  
Vegetable Consultant





SWEET GEM ★



UNBRIDLED



YELLOW BUTTERCUP



SIRIUS



ACE PLUS



WILD CARD PLUS

## WATERMELON

TRIPLOID Hybrid

Pricing on pages 123

			Days	Shape	Weight pounds	Rind Type	Flesh Color	Features
★	46008	<b>Sweet Gem</b>	83	Oval	12	Dark Green	Bright Red	High-yielding seedless variety that produces uniform, large, oval fruit with a rich, classy rind. Its distinctive look and superior flavor make it ideal for the fresh market and a standout in the produce aisle.
	46018	<b>Unbridled</b>	85	Oval	18 - 22	Medium Green Background / Dark Green Stripes	Deep Red	Next generation breeding from Sakata includes this high yield potential, strong vined variety. Beautiful rind pattern and crisp, dark red flesh round out a solid product.
	46021	<b>Yellow Buttercup</b>	90	Round/ Oval	14 - 16	Dark Green Background / Green Stripes	Bright Yellow	One of the top yellow-fleshed varieties in today's marketplace. Crisp texture and great eating quality.
<b>Personal Size</b>								
	46045	<b>Sirius</b>	74	Globe	5.5-6.5	Crimson Sweet	Red	High-quality, Crimson Sweet striped personal size seedless. Medium thick rind and intermediate resistance to Fusarium wilt race 1. Globe shaped fruit with red flesh and small-medium pip size. Early maturity.
<b>Pollenizers</b>								
	46103	<b>Ace Plus</b>		Round / Oval		Light Green Background / Medium Green Stripes		Offers a very early flowering date that makes pollen available for the first female flowers produced by the triploid hybrid. Continues an elongated pollination cycle.
	46109	<b>Wild Card Plus</b>		Round / Oval		Light Green Background / Medium Green Stripes		Early and extended flowering period that ensures early pollination availability when triploid hybrid begins flowering. Long, thin internodes radially extend pollen to wherever a female flower is located.



## DOCUMENTS REQUIRED

Various products in our catalog require signed documents before seed can be shipped.

Look for this document icon with a page number. This will guide you to the page with the appropriate document for the product you are purchasing.

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ruppseedsinc/](https://www.facebook.com/ruppseedsinc/)



### WATERMELON TRIPLOID Hybrid

M=1,000 seeds

Priced per package Priced per 1,000 seeds in these package sizes	100 Seeds	500 Seeds			
			1M	5M	10M*
46001 <b>Bold Ruler</b>	33.65	134.50	229.85	222.35	217.35
46142 <b>Distinction</b>	36.40	145.55	248.75	241.25	236.25
46140 <b>Fascination</b>	47.65	190.45	325.55	318.05	313.05
46026 <b>Joy Ride</b>	41.45	165.75	283.30	275.80	270.80
46134 <b>Melody</b>	46.35	185.35	316.80	309.30	304.30
46007 <b>Orange Crisp</b>	43.50	173.95	297.30	289.80	284.80
46102 <b>Sweet Dawn</b>	48.85	195.30	333.80	326.30	321.30
46008 <b>Sweet Gem</b>	58.85	235.35	402.30	394.80	389.80
46039 <b>Tailgate</b>	41.80	167.05	285.50	278.00	273.00
46018 <b>Unbridled</b>	38.65	154.50	264.10	256.60	251.60
46021 <b>Yellow Buttercup</b>	56.00	223.95	382.75	375.25	370.25
<b>Personal Size</b>					
46045 <b>Sirius</b>	37.10	148.30	253.50	246.00	241.00
<b>Pollenizers</b>					
46103 <b>Ace Plus</b> <sup>F300</sup>	29.45	117.65	201.10	193.60	188.60
46109 <b>Wild Card Plus</b> <sup>F300</sup>	33.45	133.65	228.40	220.90	215.90

\* Multiple packages may be used to fill orders for these quantities.

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RUPP JACKET



RUPP SOFT SHELL



RUPP HOODIE



RUPP CAMO CAP



RUPP KHAKI &  
BLACK CAP



RUPP RED & GRAY  
CAP

## RUPP CLOTHING

		Regular Sizes	Tall Sizes	Features
PJKT.CAS.W1	<b>Rupp Jacket 11.5 oz</b>	XS - 6XL	LT - 6XLT	This jacket features a shell constructed of wind-proof/water resistant Polyurethane coated heavyweight Toughlan® nylon, and is fully lined with super heavyweight 11.5 oz. anti-pilling panda fleece. Also features a generous full cut, two front pockets and one inner right chest pocket, all with zippers. Double-stitched seams for added strength. Raglan sleeves with stretch cuff and waistband. The jacket shell is khaki with a black lining. The Rupp logo is embroidered in maroon on the left chest. Men's sizes only.
PJKT.CAS.SF3	<b>Rupp Soft Shell Jacket</b>	S - 4XL		This soft shell jacket is ready to take on rain or wind with a sleek colorblock shell and a warm microfleece interior. Rupp logo on the left chest. Available in men's sizes only.
PJKT.SWT.HD	<b>Rupp Hoodie Sweatshirt</b>	S - 3XL		Charcoal gray pull-over hoodie sweatshirt with the a large Rupp logo on the front.
PHAT.SOLID.G3	<b>Rupp Camouflage Solid Cap</b>	One size fits all		This ballcap features a sloped front and a pre-formed visor. The cap is black with Realtree Hardwoods® camouflage and barbed wire accent. Rupp Seeds logo embroidered in gray.
PHAT.MESH.G5	<b>Rupp Khaki &amp; Black Mesh Cap</b>	One size fits all		This mesh back, unstructured cap features a Rupp logo patch on the front and has our "See What Good Yields*" tagline on the back.
PHAT.SOLID.G7	<b>Rupp Red &amp; Gray Solid Cap</b>	One size fits all		This ballcap features a sloped front and a pre-formed visor. The cap is red and gray with Rupp Seeds logo embroidered in white on the front and our "See What Good Yields*" tagline on the back.

Please allow 3-4 weeks for delivery on clothing.

## RUPP CLOTHING

### RECOMMENDED SIZE CHART

	XS	S	M	L	XL	2XL	3XL	4XL	5XL	6XL
<b>Men's Jacket Size</b>	30-32	34-36	38-40	42-44	46-48	50-52	54-56	58-60	62-64	66-68
<b>Ladies Jacket Size</b>	2-4	6-8	10-12	14-16	18-20	22-24	26-28	30-32		
<b>Size Code**</b>	X	S	M	L	1	2	3	4	5	6

\*\* Use item number plus size code. Add a 'T' to the end for tall sizes.

## CLOTHING

	Size	XS	S	M	L	XL	2XL	3XL	4XL	5XL	6XL
	Size codes	X	S	M	L	1	2	3	4	5	6
PJKT.CAS.W1	<b>Rupp Jacket</b> 11.5 oz	73.25	73.25	73.25	73.25	73.25	77.50	80.50	83.50	86.50	89.50
PJKT.CAS.SF3	<b>Rupp Soft Shell Jacket</b>		71.15	71.15	71.15	71.15	75.40	78.40			
PJKT.SWT.HD	<b>Rupp Hoodie Sweatshirt</b>		31.50	31.50	31.50	31.50	35.75	38.75			
PHAT.SOLID.G3	<b>Rupp Camouflage Cap</b>	13.15									
PHAT.SOLID.G7	<b>Rupp Red &amp; Gray Cap</b>	13.15									
PHAT.MESH.G5	<b>Rupp Khaki &amp; Black Mesh cap</b>	13.15									
	Tall size codes	LT	1T	2T	3T	4T	5T	6T			
CAS.W1	<b>Rupp Jacket</b> 11.5 oz	77.50	80.50	83.50	86.50	89.50	92.50	95.50			

Prices include shipping. Allow 3-4 weeks for delivery.

Cash discounts are not available on clothing.





1 OZ. PACKET



4 OZ. PACKET



BIN MARKERS

## POINT OF SALE

Seed Packets	Priced per box of 500 packets	Box
VPOS.PACKET.1Z 1 oz seed packets - 3 1/4" x 4 3/4"		31.50
VPOS.PACKET.4Z 4 oz seed packets - 4 5/8" x 6 7/8"		47.80
<b>Bin Markers</b>		
VPOS.BINMARK 4 3/4" x 6 3/4" Bin Marker - Pack of 25		2.65

## PLANTER PLATES

	Priced per plate	1 plate
B John Deere Plates		47.25
C IH Plates		47.25
F Filler Ring		47.25

Give us a call about your planter plate needs. We have a good stock including blank plates available for you to make your own cells for those hard to fit seeds.

Biological Enhancement for Vegetables

# Naturall™

## for Vegetables

ROOT INOCULANT

Naturall™ for Vegetables contains proprietary and patent pending biologicals that colonize the root system of plants. Crop stress such as disease and dry weather can be alleviated, and often systemically, so that root colonization by this treatment can affect the physiology of the whole plant resulting in higher yields.



Enhanced root growth  
Healthier plants  
Increased seedling vigor  
Easy to apply  
Higher yields  
Improved nutrient and water efficiency

ABM | abm1st.com

CONTENTS SETTLE SHAKE CONTAINER WELL BEFORE MEASURING

# SabrEx™

ROOT INOCULANT  
for CORN

**Application rate:** SabrEx for corn can be used for field corn, popcorn, sweet corn and sunflowers at a rate of 0.5 oz. per 50 lb. of seed.

**Directions for use:** Apply as a dry seed treatment prior to planting. Mix until uniform coverage is obtained.

**Compatibility:** SabrEx is compatible with many common fungicides and insecticides. For current compatibilities, contact your ABM representative or call 877-617-2461.

**Product specifications:** Contains proprietary and crop-specific combination of patent-pending strains of Trichoderma microorganism spores formulated with an 80/20 talc/graphite carrier.

**Minimum specifications:** 7x10<sup>7</sup> cfu/gm.

CONTAINS LIVING ORGANISMS. STORE IN A COOL DRY PLACE OUT OF SUNLIGHT.

Made in the USA

Net Contents: 1 oz.



ADVANCED BIOLOGICAL MARKETING | P.O. Box 222 | Van Wert, OH 45891 | USA | 877.617.2461 | ABM1st.com

## NATURALL™ PB APPLICATION RATES

CROPS	RATE
<b>Cucurbit Vegetables:</b> Pumpkins and Squash	1.0 oz. per 80,000 seeds
<b>Cucurbit Vegetables:</b> Cucumbers and Melons	0.5 oz. per 80,000 seeds
Broccoli, Cabbage and Cauliflower	0.5 oz. per 50,000 seeds
<b>Peppers and Tomatoes:</b> Garlic, Leeks, Onions, Shallots	0.5 oz. per 100,000 seeds
<b>Root Crops:</b> Beets, Sugar Beets, Red Beets, Carrots, Celeriac, Chicory, Horseradish, Parsnip, Radish, Rutabaga, Salsify, Turnips	0.5 oz. per 100,000 seeds

## INOCULANT

	Priced per pouch	Each
TRT.NATRALPB.1Z Naturall PB for Vegetables 1 oz pouch		28.50
TRT.GRAPHEx Graph-Ex SA Pea and Bean Inoculant 4 oz pouch		12.00
TRT.SABREX SabrEx PB for Sweet Corn 1 oz pouch		30.00

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# GERMINATION CHART

## PERCENTAGE OF NORMAL VEGETABLE SEEDLINGS

PRODUCED AT DIFFERENT TEMPERATURES\* \*\*

Seeds will germinate at a wide range of temperatures. However, there is an optimal temperature that will maximize production time. This chart shows the percentage of seedlings produced at various temperatures and the number of days until seedling emergence at each temperature: shown in ( ).

The numbers in red = the optimal daytime soil temperature for maximum production in the shortest time.

Crops	32°F	41°F	50°F	59°F	68°F	77°F	86°F	95°F	104°F
<b>Asparagus</b>	0	0	61% (53 d)	80% (24 d)	88% (15 d)	95% (10 d)	79% (12 d)	37% (19 d)	0
<b>Beans, lima</b>	0	0	1	52% (31 d)	82% (18 d)	90% (7 d)	88% (7 d)	2	0
<b>Beans, snap</b>	0	0	1	97% (16 d)	90% (11 d)	97% (8 d)	47% (6 d)	39% (6 d)	0
<b>Beets</b>	0	53% (42 d)	72% (17 d)	88% (10 d)	90% (6 d)	97% (5 d)	89% (5 d)	35% (5 d)	0
<b>Cabbage</b>	0	27	78% (15 d)	93% (9 d)	97% (6 d)	99% (5 d)	70% (4 d)	0	0
<b>Carrots</b>	0	48% (51 d)	93% (17 d)	95% (10 d)	96% (7 d)	96% (6 d)	95% (6 d)	74% (9 d)	0
<b>Cauliflower</b>	0	0	58% (20 d)	60% (10 d)	62% (6 d)	63% (5 d)	45% (5 d)	0	0
<b>Celery</b>	0	72% (41 d)	70% (16 d)	40% (12 d)	97% (7 d)	65%	0	0	0
<b>Cucumber</b>	0	0	0	95% (13 d)	99% (6 d)	99% (4 d)	99% (3 d)	99% (3 d)	49
<b>Eggplant</b>	0	0	0	0	21% (13 d)	53% (8 d)	60% (5 d)	0	0
<b>Lettuce</b>	98% (49 d)	98% (15 d)	98% (7 d)	99% (4 d)	99% (3 d)	99% (2 d)	12% (3 d)	0	0
<b>Muskmelon</b>	0	0	0	0	38% (8 d)	94% (4 d)	90% (3 d)	0	0
<b>Okra</b>	0	0	0	74% (27 d)	89% (17 d)	92% (13 d)	88% (7 d)	85% (6 d)	35% (7 d)
<b>Onions</b>	90% (136 d)	98% (31 d)	98% (13 d)	98% (7 d)	99% (5 d)	97% (4 d)	91% (4 d)	73% (13 d)	2
<b>Parsley</b>	0	0	63% (29 d)	0% (17 d)	69% (14 d)	64% (13 d)	50% (12 d)	0	0
<b>Parsnips</b>	82% (172 d)	87% (57 d)	79% (27 d)	85% (19 d)	89% (14 d)	77% (15 d)	51% (32 d)	1	0
<b>Peas</b>	0	89% (36 d)	94% (14 d)	93% (9 d)	93% (8 d)	94% (6 d)	86% (6 d)	0	0
<b>Peppers</b>	0	0	1	70% (25 d)	96% (13 d)	98% (8 d)	95% (8 d)	70% (9 d)	0
<b>Radish</b>	0	42% (29 d)	76% (11 d)	97% (6 d)	95% (4 d)	97% (4 d)	95% (3 d)	0	0
<b>Spinach</b>	83% (63 d)	96% (23 d)	91% (12 d)	82% (7 d)	52% (6 d)	28% (5 d)	32% (6 d)	0	0
<b>Sweet Corn</b>	0	0	47% (22 d)	97% (12 d)	97% (7 d)	98% (4 d)	91% (4 d)	88% (3 d)	10
<b>Tomatoes</b>	0	0	82% (43 d)	98% (14 d)	98% (8 d)	97% (6 d)	83% (6 d)	46% (9 d)	0
<b>Turnips</b>	1	14	79% (5 d)	98% (3 d)	99% (2 d)	100% (1 d)	99% (1 d)	99% (1 d)	88% (3 d)
<b>Watermelon</b>	0	0	0	17	94% (12 d)	90% (5 d)	92% (4 d)	96% (3 d)	0

\* The above data was taken from a report published in the mid-1980's. Author, affiliation, and publisher are not known.

\*\* The above table was derived from experimental data. Certain logical inconsistencies exist due to crop failure or to bad batches of seed. They do not interfere with the overall interpretation.



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PLANTING GUIDE									
▲	Seeding Rate				Seed or Plant Spacing			Recommended Soil Temperature	Days to Germination
	Seeds per Pound	per Acre by Weight	per Acre in 1000s	Seeds per 1000 foot of Row	In Row	Between Rows	Depth		
Asparagus	12,800 - 16,500	7.5 - 11 oz	6.1 - 11.4 M	667 - 1,000	12 - 18"	48 - 60"	.8"	60 - 85°F	10 - 20
Beans Bush Green	1,500 - 1,600	60.5 - 68 lbs	90.8 - 108.9 M	6,000	2"	30 - 36"	.5 - 1"	65 - 85°F	8 - 12
Beet	25,600 - 30,000	5.3 - 6.1 lbs	136.1 - 181.5 M	6,000	2"	18 - 24"	.5 - 1"	60 - 85°F	6 - 10
Broccoli	80,000 - 128,000	2.9 - 3 oz	15.2 - 22.7 M	1,000	12"	24 - 36"	.3 - .5"	60 - 75°F	6 - 10
Brussels Sprouts	80,000 - 128,000	1 - 1.4 oz	7.6 M	500	24"	36"	.5 - 1"	60 - 75°F	6 - 10
Cabbage	107,000 - 128,000	1.9 - 2.2 oz	15.2 M	1,000	12"	36"	.3 - .5"	50 - 60°F	6 - 10
Cantaloupe	15,000 - 20,000	4 - 4.8 oz	3.8 - 6.1 M	500 - 667	18 - 24"	60 - 72"	.5 - 1"	75 - 85°F	7 - 12
Carrots	320,000 - 410,000	2 - 2.1 lbs	653.2 - 871 M	24,000	.5"	15 - 20"	.5"	50 - 85°F	8 - 12
Cauliflower	116,000 - 128,000	1.1 - 1.3 oz	7.6 - 10.1 M	500 - 667	18 - 24"	36"	.3"	50 - 77°F	6 - 10
Celery	960,000 - 1,417,500	0.5 - 0.8 oz	45.4 M	2,000	6"	24"	.1"	65 - 70°F	21 - 25
Collards	90,700 - 144,000	1.3 - 1.8 oz	10.1 - 12.1 M	667 - 800	15 - 18"	36"	.3 - .5"	60 - 75°F	6 - 10
Cucumber	16,000 - 18,000	0.6 - 1 lbs	10.1 - 18.2 M	667 - 1,000	12 - 18"	30 - 36"	.5 - 1"	60 - 95°F	7 - 10
Eggplant	96,000 - 110,000	1 - 1 oz	5.5 - 6.9 M	600 - 750	16 - 20"	60"	.2 - .5"	85 - 90°F	10 - 14
Endive	240,000 - 260,000	1.4 - 2.2 oz	22.7 - 36.3 M	1,000 - 1,200	10 - 12"	18 - 24"	.5"	50 - 75°F	10 - 14
Kale	124,000 - 136,000	1.9 - 2.9 oz	15.2 - 24.2 M	667 - 800	15 - 18"	18 - 24"	.25 - .5"	60 - 75°F	6 - 10
Kohlrabi	123,000 - 144,000	1.9 - 2.7 oz	15.2 - 24.2 M	667 - 800	15 - 18"	18 - 24"	.25 - .5"	60 - 75°F	6 - 10
Leeks	144,000 - 151,000	1.1 - 1.4 lbs	163.3 - 204.2 M	6,000	2"	16 - 20"	.5"	65 - 95°F	10 - 14
Lettuce	364,000 - 432,000	3 - 3.4 oz	68.1 - 90.8 M	3,000	4"	18 - 24"	.3 - .5"	50 - 75°F	2 - 7
Mustard	204,000 - 272,000	4 - 5.3 oz	68.1 M	1,500	8"	12"	.3"	60 - 75°F	5 - 8
Okra	7,800 - 8,000	1.1 - 1.3 lbs	8.7 - 10.1 M	667	18"	36 - 42"	1"	65 - 95°F	7 - 18
Onion	106,000 - 144,000	1.4 - 1.5 lbs	163.3 - 204.2 M	6,000	2"	16 - 20"	.5"	32 - 85°F	10 - 14
Parsley	266,000 - 288,000	8.2 - 13.4 oz	136.1 - 242 M	3,000 - 4,000	3 - 4"	9 - 12"	.3"	50 - 86°F	21 - 25
Parsnips	87,000 - 120,000	1.4 - 1.5 lbs	121 - 181.5 M	4,000	3"	12 - 18"	.3 - .5"	32 - 75°F	18 - 25
Peas	2,200 - 2,400	41.2 - 90.7 lbs	90.8 - 217.8 M	6,000 - 12,000	1 - 2"	30 - 36"	1.5 - 2"	40 - 86°F	6 - 10
Pepper <small>Twin row on plastic</small>	64,000 - 76,000	2.2 - 2.6 oz	9.1 - 12.1 M	500 - 667	18 - 24"	12"	.3 - .5"	65 - 86°F	10 - 14
Pumpkin	3,000 - 3,200	0.6 - 1.2 lbs	1.9 - 3.8 M	333 - 500	24 - 36"	72 - 96"	.5 - 1"	70 - 80°F	7 - 10
Radish	45,000 - 48,000	12.1 - 15.1 lbs	544.4 - 725.8 M	12,000	1"	9 - 12"	.5 - .8"	60 - 85°F	5 - 8
Spinach	39,000 - 48,000	3.7 - 11.3 lbs	145.2 - 544.4 M	4,000 - 12,000	1 - 3"	12 - 15"	.5"	32 - 60°F	7 - 10
Squash Summer	2,500 - 6,000	1.7 - 1.8 lbs	4.6 - 10.1 M	500 - 667	18 - 24"	36 - 60"	.5 - .75"	70 - 80°F	7 - 10
Squash Winter	3,000 - 4,000	1 - 1.3 lbs	2.9 - 5.1 M	500 - 667	18 - 24"	72 - 96"	.5 - .75"	70 - 80°F	7 - 10
Sweet Corn	2,700 - 6,000	4.5 - 6.7 lbs	18.2 - 27.3 M	1,000 - 1,500	8 - 12"	30"	.75 - 1.5"	60 - 75°F	7 - 10
Tomato	140,000 - 165,000	0.8 - 0.8 oz	7.6 M	667	18"	48"	.25 - .5"	60 - 75°F	7 - 10
Turnip	173,000 - 192,000	1.4 - 1.6 lbs	272.2 M	6,000	2"	12"	.3"	60 - 75°F	6 - 10
Watermelon Large	4,000 - 8,000	5.1 - 5.1 oz	1.3 - 2.6 M	333	36"	72 - 144"	.5 - 1"	80 - 95°F	8 - 12
Watermelon Small	8,000 - 10,000	2.6 - 4 oz	1.3 - 2.6 M	333	36"	72 - 144"	.5 - 1"	80 - 95°F	8 - 12

2021 Commercial Vegetable Seed Catalog - Canadian Edition

[illegible]

## NOTICE TO BUYERS

**WARRANTY & DISCLAIMER of WARRANTIES:** Rupp Seeds, Inc. (**Rupp**) warrants that the products are labeled as required by law and conforms within tolerances to the label description. Rupp and its seed suppliers make no other express or implied warranty of merchantability, fitness for a particular purpose or otherwise. Any recommendations for use of these products are based on Rupp and their suppliers best judgment, but there is no warranty of results to be obtained in connection therewith.

**LIMITATIONS of LIABILITY:** The exclusive remedy for loss or damages due to breach of the foregoing warranty or contract or for negligence or other cause shall be limited to the

purchase price of the product and shall not include any consequential damages. Claims for defects in this product must be presented to Rupp as soon as possible to enable Rupp to investigate the claim and in any event within 30 days after discovery.

**NOTICE OF REQUIRED ARBITRATION:** The seed laws of some states require Arbitration of disputes of allegedly defective seed as a prerequisite to maintaining a legal action of the seller.

Please contact your State Department of Agriculture for specific requirements as to filing procedures as soon as you learn the fact upon which a claim is based. Before any legal action is initiated, a pre-harvest inspection may be required.





<p><b>NOTICE TO BUYERS</b></p> <p><b>WARRANTY &amp; DISCLAIMER of WARRANTIES:</b> Rupp Seeds, Inc. (<b>Rupp</b>) warrants that the products are labeled as required by law and conforms within tolerances to the label description. Rupp and its seed suppliers make no other express or implied warranty of merchantability, fitness for a particular purpose or otherwise. Any recommendations for use of these products are based on Rupp and their suppliers best judgment, but there is no warranty of results to be obtained in connection therewith.</p> <p><b>LIMITATIONS of LIABILITY:</b> The exclusive remedy for loss or damages due to breach of the foregoing warranty or contract or for negligence or other cause shall be limited to the</p>	<p>purchase price of the product and shall not include any consequential damages. Claims for defects in this product must be presented to Rupp as soon as possible to enable Rupp to investigate the claim and in any event within 30 days after discovery.</p> <p><b>NOTICE OF REQUIRED ARBITRATION:</b> The seed laws of some states require Arbitration of disputes of allegedly defective seed as a prerequisite to maintaining a legal action of the seller.</p> <p>Please contact your State Department of Agriculture for specific requirements as to filing procedures as soon as you learn the fact upon which a claim is based. Before any legal action is initiated, a pre-harvest inspection may be required.</p>
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# United States Department of Agriculture

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This is to verify that

**Rupp Seed, Inc.**

**Pettisville, Ohio**

has successfully met USDA's acceptance criteria of the voluntary

**USDA Good Agricultural Practices & Good Handling Practices Audit**

*Wholesale Distribution Center/Terminal Warehouses*

*Various Seeds*

A handwritten signature in black ink, appearing to read "Donna D. Butler-Ford".

**Acting Chief, Audit Services Branch**

**Audit ID: 35048**

**11/6/2020**

Audits are valid for one year from date on certificate. To verify continued adherence to the program, please visit [www.ams.usda.gov/gapghp](http://www.ams.usda.gov/gapghp)



**Rupp Seeds Inc.**  
**17919 County Road B**  
**Wauseon, Ohio 43567**

419-337-1841  
fax 419-337-5491  
[www.ruppseeds.com](http://www.ruppseeds.com)

## Letter of Guarantee

To whom it may concern,

Rupp Seeds Incorporated was founded in 1946 and is a family owned business now in its third generation of family management.

Rupp Seeds is an active member of the American Seed Trade Association (ASTA) ([www.betterseed.org](http://www.betterseed.org)), Independent Professional Seed Association (IPSA) ([ipseed.org](http://ipseed.org)) and Ohio Seed Improvement Association (OSIA) ([www.ohseed.org](http://www.ohseed.org)).

Involvement in these organizations insures that we stay abreast of best practices in managing seed and variety quality throughout production and processing in a manner that meets and exceeds industry standards.

Rupp Seeds is an authorized seed dealer for many of the leading vegetable seed breeders and producers. Rupp Seeds and its seed suppliers employ Good Agricultural Practices in the production of commercial seed lots and every effort is made to minimize microbial contamination during production and processing. Seeds sold to Buyer are of adequate quality for use in raising a crop.

Rupp Seeds has contracted with a third party to manage pest control in its seed storage and processing facilities.

This is a continuing guarantee, subject to revocation only on written notice to Buyer.

  
\_\_\_\_\_  
Philip Rupp  
President

October 1, 2020





**Rupp Seeds Inc.**  
17919 County Road B  
Wauseon, Ohio 43567

# Watermelon Waiver

**800.700.1199**

FAX 419.337.5491

waivers@ruppseeds.com

## NOTICE, WAIVER and COMPLETE RELEASE AGREEMENT

Watermelon Fruit Blotch (WFB) is a serious disease that has become a significant risk factor in many areas where watermelons are grown. The pathogen causing WFB can be introduced into a field by infested seed, infected transplants, volunteer watermelon, mechanical means, or natural spread from alternate hosts. While it is impossible to conduct testing procedures that will give 100% reliable results with regard to the identification of any seed born WFB infection, Rupp Seeds suppliers are testing all of their seed lots. Depending on the supplier, 10,000 to 50,000 seeds from each seed lot have been tested pursuant to current industry standards, and no symptoms of WFB were found to be present within the known limits of detection. Rupp hereby represents that its suppliers have tested representative samples of all seed lots to be covered by this agreement, and has not detected the presence of WFB bacteria in any such representative samples. Notwithstanding the above, Rupp Seeds cannot guarantee that such tests are totally conclusive and nor that the seeds are free of WFB and, further, cannot guarantee that WFB bacteria may not be introduced to such seeds and/or watermelon plants from outside sources at a later time.

## GROWERS RELEASE OF ALL LIABILITY FOR WATERMELON FRUIT BLOTCH.

Acknowledging the above, Grower still wishes to purchase watermelon seeds, and Grower is willing to assume all risks of loss associated with WFB. Accordingly, Grower hereby fully and conditionally releases Rupp and its suppliers from any and all liability with respect to the presence of WFB bacteria on or within such seeds or the vulnerability of such seeds, to the WFB bacteria. Grower acknowledges and agrees that Rupp and its suppliers shall have no responsibility or liability for any losses or damages relating in any way to WFB, under any legal theory including but not limited to negligence or strict products liability. Rupp Seeds acknowledges that all other aspects of its express warranty, as contained on the label, do apply, and that any waiver or limitation on the Rupp express warranty resulting from the terms and conditions of this Agreement, only apply to the presence on or within, or vulnerability of, such seeds, to WFB bacteria. Grower further agrees that Rupp and its suppliers have no liability or responsibility for its watermelon seeds or plants grown there from, if they are contaminated with WFB bacteria after the seeds are delivered to grower. Grower acknowledges that contamination may occur in a transplant house, in the field, or under circumstances beyond the control of Rupp Seeds.

## GROWER'S AGREEMENT NOT TO RESELL SEEDS OR PLANTS.

In consideration for Rupp Seeds, or its suppliers, agreeing to sell watermelon seeds to Grower, Grower hereby agrees that it/he will only use such seeds for plantings on its/his own holdings, and will not, under any circumstances, sell, transfer, distribute or in any way dispose of any such seeds or seedlings grown from the seeds, with or without consideration, to any third party.

## GROWER'S INDEMNIFICATION AGREEMENT.

Grower acknowledges that in the event it/he breaches the terms and conditions of paragraph 2, of this agreement, with respect to the distribution of such watermelon seeds to a third party, Rupp Seeds and their suppliers could incur liability to such third parties. Therefore, grower hereby unconditionally agrees to defend and indemnify Rupp Seeds or any of their suppliers, from any and all loss, liability, or damage which Rupp Seeds or any of their suppliers, may incur, including, but not limited to reasonable attorney's fees, relating to any claim by a third party who received any portion of the watermelon seeds which are covered by this agreement as sold by Rupp Seeds to grower.

## GROWER UNDERSTANDS THIS AGREEMENT.

Grower represents and warrants that it/he has consulted with or had an opportunity to consult with an attorney, and that Grower fully understands the meaning and legal effect of this agreement.

## ALL OTHER TERMS OF THE LABEL APPLY.

Except as expressly provided within this agreement, all remaining terms, disclaimers, limitations, and conditions of purchase as disclosed and set forth on the Rupp label and on the Rupp Notice to Purchase Regarding Liability shall apply to the Grower's purchases of watermelon seed.

## CHOICE OF LAW AND CHOICE OF FORUM.

The parties agree that this agreement is entered into the County of the Rupp's supplier and shall be construed in accordance with the laws of that state. It is further agreed that any litigation by and between Grower and Rupp Seeds, or under a Rupp supplier, relating to the sale of all such watermelon seeds hereunder, shall take place in the county of the Rupp supplier.

## ATTORNEY'S FEES.

In the event that Rupp or its supplier enforces any terms of this agreement in any litigation with Grower, Rupp or its supplier shall be entitled to recover reasonable attorney's fees from Grower.

## Rupp Seeds Inc.

Signature \_\_\_\_\_

Date \_\_\_\_\_

*I have read and understand this release agreement and I agree to be bound by all of its terms. Please fill out completely and sign below.*

Customer Name \_\_\_\_\_

Address 1 \_\_\_\_\_

Address 2 \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Phone # \_\_\_\_\_

Fax # \_\_\_\_\_

Printed Name \_\_\_\_\_

Title \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

Variety	Lot	Quantity



SEE WHAT GOOD YIELDS<sup>®</sup>

## Release Agreement – Gold Dust

*For seed below Rupp quality standards*

We are informing you that Gold Dust pumpkin, lot number PCH1518 (herein Seed) is below Rupp Seeds (herein Rupp) quality standards, in that it contains offtypes and may produce up to 15% fruit that vary in shape, color and size. Rupp is offering the Seed at a 15% discount.

By signing this agreement, the Customer understands the Seed is below standard, agrees to purchase the Seed and understands the Seed is not returnable. The Customer further agrees to release Rupp of any and all claims or liability arising from the use of the Seed, and to indemnify and hold harmless Rupp from any claims by third parties arising out of the planting of the Seed.

CUSTOMER

Signature: \_\_\_\_\_

Printed: \_\_\_\_\_

Date: \_\_\_\_\_

Farm/Business  
Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

**Rupp Seeds Inc.**  
17919 County Road B  
Wauseon, Ohio 43567

419-337-1841  
419-337-5491 fax  
www.ruppseeds.com

**“Helping** farm families **feed** their friends & neighbors **at home** the world.”

# DP Seeds LLC.

## GROWERS RISK AGREEMENT IN THE USE OF WATERMELON SEED SOLD AND / OR SAMPLED BY DP SEED LLC.

**DUE TO AN ADVERSE LEGAL CLIMATE IN THE STATES OF NORTH CAROLINA AND SOUTH CAROLINA, WE DO NOT RECOMMEND OUR WATERMELON SEED BE SOLD IN THESE STATES.**

Watermelon seed sold or sampled by DP SEED LLC. has been tested for the presence of seed borne Bacterial Fruit Blotch (*Acidovorax Avenae*, sub spec. *Citrulli*) and Gummy Stem Blight (*Didymella Bryoniae*). No symptoms of either disease were found in 50,000 seeds tested through pathology testing and grow out. An accredited seed pathology laboratory using the most current and accepted methods available has done all testing. DP SEED LLC. does not warrant that its seed lots are completely free from the Watermelon Bacterial Fruit Blotch or Gummy Stem Blight. All warranties, express or implied, including warranty of merchantability and fitness for a particular purpose, are disclaimed. In no event, shall DP SEED LLC. be liable for any incidental or consequential damages, including without limitation, lost profits.

The Buyers sole and exclusive remedy for any claim or loss resulting from the use of any seed from any lot sold by DP SEED LLC., its dealers, agents and representatives, is limited to repayment of the purchase price. BY ACCEPTING WATERMELON SEED SOLD OR SAMPLED BY DP SEED LLC., GROWER EXPRESSLY ASSUMES ALL RISK THAT THE WATERMELON SEED MAY CONTAIN DISEASES, INCLUDING, WITHOUT LIMITATION, WATERMELON FRUIT BLOTCH AND/OR GUMMY STEM BLIGHT.

1. Watermelon Fruit Blotch (WTB) and Gummy Stem Blight (GSB) have been discovered in some commercial watermelon crops in the U.O. in which severe damage was caused by this bacteria and/or fungi. It is suspect that these diseases can be spread through water, seed, implements, transplants or other cultural practices. Control methods are currently being studied and developed. These devastating diseases are an industry wide problem and a group of plant pathologists are currently working with seed companies, transplant firms and commercial growers to find solutions to this important problem. At the present time, there is no reliable or infallible test available to fully identify infected seed lots. DP SEED LLC. warrants its watermelon seed only to the extent that the seed in the container conforms to the label thereon.

2. It is expressly understood that this document is to be interpreted and governed according to the laws of the State of Arizona. The undersigned expressly agrees that, in the event of any litigation between the parties to this document arising out of, related to, in connection with, or in violation of any of the terms of this document, venue shall be strictly and only in the County of Yuma, State of Arizona.

3. The grower or duly authorized party representing the grower warrants that he/she is duly authorized to bind the entity on whose behalf he/she is signing to the terms of this agreement and that he/she is purchasing the seed for his/her (Growers) own use and that the seed will only be used for plantings on his/her own holdings. The grower expressly warrants that he/she will not transfer seed and/or seedlings grown from this seed, in any manner, way or form to another party.

4. EXPRESS AGREEMENT TO INDEMNIFY DP SEED LLC. The undersigned agrees to indemnify, defend and hold DP SEED LLC., its officers and its representatives harmless from and against any claim that may ever be brought that relates in any way to the seed purchased or received as samples by the undersigned. This indemnity agreement includes, with limitation, any claim arising from allegedly diseased plants or fruit grown from watermelon seed.

5. Together with the invoice or sample order form reflecting the undersigned's receipt of seed, this document contains the entire agreement between the undersigned and DP SEED LLC. It is expressly understood and agreed that this document may not be amended or otherwise altered except by writing executed by an authorized representative of DP SEED LLC. This document and the invoice or sample order form reflecting the undersigned's receipt of seed supersede all prior agreements, understandings and representations concerning the subject matter hereof.

6. The undersigned stipulates that the terms of this document are clear, understandable and unquestionable and pertain totally to the matter of this document. That he/she fully understands the implication of this document and agrees to all terms and conditions of this agreement without recourse. The undersigned agrees that this document is a matter of law and agrees that no parol or oral evidence shall be admissible to interpret the terms of this document.

7. In the event of any dispute between the undersigned and DP SEED LLC. arising out of, relating to or in connection with the terms of this document, the prevailing party shall be entitled to recover its attorney's fees, costs (whether taxable as such or not), and necessary disbursements.

8. This document may be pleaded as a full and complete defense to and may be used as the basis for an injunction against any action, suit or other proceedings which may be instituted, prosecuted on attempted in breach of this document.

9. Each term, clause and provision of this document is separate and independent. Should any term, clause or provision of this document be found to be invalid the validity of the remaining terms, clauses and provisions shall not be affected.

10. The undersigned represents and warrants that he/she has carefully read this document, has had a full and complete opportunity to consult with anyone, including legal counsel of his/her choice, regarding this document, knows and understands what is in the document and willingly enters into this agreement freely and voluntarily.

I HAVE CAREFULLY AND FULLY READ AND UNDERSTAND THIS DOCUMENT AND I FREELY AND VOLUNTARILY AGREE TO ITS TERMS, WITHOUT RECOURSE WHATSOEVER.

Please fill out completely and sign below.

Customer Name \_\_\_\_\_

Address 1 \_\_\_\_\_

Address 2 \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Phone # \_\_\_\_\_

Fax # \_\_\_\_\_

Printed Name \_\_\_\_\_

Title \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

Variety	Lot	Quantity





## NOTICE, WAIVER, LIMITATION OF LIABILITY AND WARRANTY DISCLAIMER

This Notice, Waiver, Limitation of Liability and Warranty Disclaimer is made by U.S. Seedless, L.L.C. (USS) and/or US Seedless, Inc. (USS) and applies to all transfers of watermelon seed by USS to any person including, but not limited to, its customers, distributors, and dealers. The terms contained herein apply to all transfers of seeds or transplants by USS whether the transfer is made via sale or by free sample or trial.

**1. Disease Control Notice:** Watermelon crops have been affected by various diseases over the last several years. Watermelon Fruit Blotch or *Acidovorax avenae* subsp. *citrulli* (WFB), and Gummy Stem Blight or *Didymella bryoniae* (GSB) in particular are serious diseases which have become a significant risk in the area of watermelon cultivation. The pathogens causing these diseases and all other watermelon diseases can be introduced into a field by infested seed, infected transplants, infected volunteer watermelon, mechanical means, infected debris, or by natural spread from alternate hosts. The causes of these diseases are due to factors beyond the control of USS and USS cannot guarantee that the seeds are free of WFB, GSB or any other disease. It is scientifically impossible to conduct any testing procedure which will give 100% reliable results with regard to the identification of any seedborne WFB, GSB or other infection. Nonetheless, USS is using its best efforts to test all of its seed lots. Consequently, 10,000 seeds from each lot have been tested pursuant to current industry standards, and no symptoms or indicators of WFB, GSB or other diseases were found to be present within the known limits of detection. USS recommends that the buyer examine all seed purchased carefully and conduct any tests it deems necessary to reduce the possibility that any seeds are infected with WFB, GSB or any other seedborne disease. The buyer agrees that any seed or plants purchased from USS will be produced or grown in accordance with the "Guidelines for Control of Bacterial Fruit Blotch in Watermelon" as published by the National Watermelon Association, Inc., August 1996, including any subsequent amendments.

**2. Waiver and Limitation of Liability:** USS and the undersigned acknowledge that this transfer of watermelon seed is a commercial transaction between merchants with respect to goods of this kind. As a condition of sale of all watermelon seeds sold by USS or transplants grown from USS seeds and with respect to all USS seeds or transplants grown from USS seeds provided as free samples or trials, the undersigned acknowledges that he has been informed of the risks associated with the potential presence of WFB, GSB, or any other diseases and hereby waives any right to assert any claims against USS, whether for breach of contract, tort, negligence, strict liability, or otherwise. The undersigned also releases USS, its distributors, its dealers, agents and suppliers from any and all claims relating to WFB, GSB or any other diseases with respect to all USS watermelon seed or transplants grown from USS seed supplied by USS or its dealers. The undersigned expressly acknowledges that his exclusive and sole remedy against USS for any loss resulting from the use of USS seed or transplants grown from USS seed is limited to return of the purchase price of said seed. In addition, the undersigned understands and acknowledges that seedless watermelons are not necessarily 100% free of all seeds, but may contain some edible soft seeds, or some inedible hard seeds. It is understood that seedless watermelon varieties may be affected by environmental conditions including, but not limited to, soil properties, plant spacing, irrigation, climactic conditions, chemical applications, insects, nematodes, virus, bacteria, fungus, or other conditions which may cause stress and/or otherwise pathologically impact the watermelon plants. This in turn may cause an increase in seeds, and variations in watermelon flesh color, size, weight, sugar content, water content, fiber content, and hollow heart condition. Additionally, if any seed is repackaged, all remedies against USS will be waived, including return of the purchase price, and USS will have no liability whatsoever to any other parties.

### 3. Disclaimer of Warranties:

**a. Disclaimer of Express Warranty:** Any affirmation of fact or promise made by USS shall not be deemed to create an express warranty that the goods shall conform to the affirmation or promise; any description of the goods by catalogue or otherwise is for the sole purpose of identifying them and shall not be deemed to create an express warranty.

**b. Disclaimer of Implied Warranty:** This seed or transplant transfer is made on the express understanding that there is no implied warranty that the goods shall be merchantable and that there is no implied warranty that the goods shall be fit for any particular purpose. The buyer acknowledges that he is not relying upon the seller's skill or judgment to select or furnish goods suitable for any particular purpose and that there are no warranties which extend beyond the description on the face hereof.

**4. Transplant Grower ("Buyer") Obligations:** The Undersigned Buyer agrees to obtain from each customer or entity to which the Buyer sells USS watermelon seeds or transplants, a duly signed and executed Waiver and Release form in duplicate in the form required by USS. Should the customer be a partnership then all partners must sign the Waiver and Release form. Should the customer be a Company then the Waiver and Release form should be signed by the Directors and Secretary. The undersigned agrees to inform in writing each customer or entity to which it sells USS watermelon seeds that they are bound by the terms of the Waiver and Release form for all future sales of USS Watermelon seeds. The buyer agrees that failure to obtain the executed grower Waiver and Release form from each purchaser of USS watermelon seed will result in the Buyer accepting liability for any claim demand or action by the purchaser in respect of the seed and the Buyer agrees to indemnify USS and the Reseller/Distributor against any liability in respect thereof.

**5. Limitation of Damages:** USS shall not be liable for incidental or consequential damages or crop failure damages as a result of the use of USS seed or transplants grown from USS seed.

**6. Indemnity:** The undersigned agrees that he will not resell or transfer any USS seeds or transplants grown from USS seeds except in compliance with the obligations set forth in paragraph 4 above. The undersigned agrees to defend, indemnify and hold harmless USS against any and all claims, actions, proceedings, judgments, attorney’s fees, court costs, or other potential liabilities against USS of any nature whatsoever relating to any resale or transfer of said seeds and transplants.

**7. Choice of Law / Choice of Forum / Jury Waiver:** The parties agree that this Agreement is entered into in the County of Bucks, Commonwealth of Pennsylvania and shall be construed in accordance with the laws of the Commonwealth of Pennsylvania. It is further agreed that any litigation between the parties relating to this Agreement or any sale or transfer of USS seeds or transplants grown from USS seed hereunder shall take place in the County of Bucks, Commonwealth of Pennsylvania.

**The undersigned specifically agrees to waive its right to a jury and hereby agrees that any such legal action will be tried without a jury.**

**8. Severability:** The invalidity or unenforceability of any particular provision of this Agreement shall not affect the other provisions hereof, and the Agreement shall be construed in all respects as if such invalid or unenforceable provisions were omitted.

I have read the above Notice, Waiver, Limitation of Liability and Warranty Disclaimer, understand it, and agree to be bound by all of its terms. The foregoing terms constitute the entire agreement between the parties regarding the sale or transfer of USS seeds or transplants grown from USS seeds. I also acknowledge that I have had the opportunity to consult with an attorney regarding this notice. I understand this notice is part of my contract and a condition of sale, and that no shipment from USS or a USS dealer will occur until USS and/or the dealer receive this signed notice. I agree to be bound by the foregoing terms for all future transfers of seeds by USS or transfers of transplants grown from USS seeds.

Dated: \_\_\_\_\_ By: Rupp Seeds, Inc.:  
Reseller / Distributor

Dated: \_\_\_\_\_ By: \_\_\_\_\_  
Buyer / Transplant Grower / Watermelon Grower

\_\_\_\_\_  
(Printed Name/Company)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Telephone)



# NOTICE, AGREEMENT AND TERMS AND CONDITIONS OF SALE OR TRANSFER OF DIPLOID AND TRIPLOID WATERMELON SEED

This agreement is by and between the Seller and Buyer listed below.

Sakata Seed America  
18095 Serene Drive  
Morgan Hill, CA 95037  
USA  
(hereinafter called Seller)

and

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
(hereinafter called Buyer)

SAKATA SEED AMERICA, INC. ("Seller") warrants that the seed it distributes has been labeled as required under State and Federal law, and that it conforms to the label description. Seller makes no other warranties, express or implied, oral or written, including any implied warranties of merchantability or fitness for a particular purpose with respect to this sale of seeds. Watermelon seeds are sold **AS IS AND WITH ALL FAULTS**. Buyer assumes all risk as to quality and performance of watermelon seeds, including the risk that such seeds may carry **BACTERIAL FRUIT BLOTCH OF WATERMELON**. Buyer further assumes all risk for any defect or damage that use of the watermelon seeds may cause.

The undersigned, a duly authorized representative of Buyer, hereby waives all claims against Seller based upon **BACTERIAL FRUIT BLOTCH OF WATERMELON**, including claims based on strict liability, negligence, breach of contract or breach of warranty.

**BUYER'S SOLE AND EXCLUSIVE REMEDY FOR ANY CLAIM WITH RESPECT TO THE SALE OF SEEDS IS LIMITED IN ALL EVENTS TO A REFUND OF THE PURCHASE PRICE OF THE SEEDS.** Buyer shall not be entitled to any incidental or consequential damages, including planting or replanting costs, lost profits, or any other expenses, losses or damages. Notice of any claim must be received by registered mail within thirty (30) days after the defect in the seed becomes apparent.

Buyer warrants and represents that he is a person who deals in watermelon seeds and by occupation has the knowledge and skill specific to the watermelon seeds involved in this transaction. Buyer further warrants and represents that the purchase of seeds in this transaction is made with full knowledge of the risks regarding watermelon seeds, including the risk that such seeds may carry BACTERIAL FRUIT BLOTCH OF WATERMELON. **Buyer hereby assumes all risk regarding such seeds, and expressly waives any damage claim with respect to BACTERIAL FRUIT BLOTCH OF WATERMELON.**

The undersigned jointly and severally agree to defend, indemnify and hold harmless Seller, its employees, agents and dealers from and against any and all claims, demands, suits, actions, liability, damages and expenses, including, but not limited to, attorneys' fees and court costs, which Seller may suffer or to which Seller may be subject, arising in any way from the distribution by any of the undersigned of the subject seed and relating in any way to BACTERIAL FRUIT BLOTCH OF WATERMELON.

(continued)

Initial: \_\_\_\_\_

## NOTICE, AGREEMENT AND TERMS AND CONDITIONS OF SALE OR TRANSFER OF DIPLOID AND TRIPLOID WATERMELON SEED

**ADDITIONAL NOTICE:** Triploid hybrid watermelons are sterile hybrids which characteristically produce fruits with few or no true seeds. Because the absence, or relative absence, of hard or true seeds in the flesh of the melon is its chief distinguishing characteristic, the triploid hybrid watermelon is often referred to as a “seedless” watermelon. Despite this popular perception, triploid hybrid watermelons are not true “seedless” watermelons. The first melons to ripen in a field of triploid hybrid watermelons often contain small, undeveloped seeds. In addition, certain genetic, cultural and climatic factors are known to cause the formation of empty seed coats (small, white, undeveloped seeds), also called “pips”, and/or hard seeds in the flesh of the melons. Due to the wide variety of possible causes of hard seed formation, **TRIPLOID HYBRID WATERMELONS ARE NOT GUARANTEED TO PRODUCE SEEDLESS FRUIT.**

Triploid hybrid watermelon production requires a high level of grower sophistication. Triploid hybrid watermelons require a pollen source and bees to serve as pollen vectors. Triploid hybrids also require special care for satisfactory germination. Growers are encouraged to contact University extension personnel for government publications and information concerning recommended cultural practices. Seller can also supply certain of this information on request. We suggest growers develop expertise in growing triploid hybrid watermelons prior to instituting large-scale commercial production.

**SPECIAL LIMITATION OF WARRANTY:** ALL TRIPLOID HYBRID WATERMELON SEEDS ARE SOLD PURSUANT TO SELLER’S STANDARD TERMS AND CONDITIONS OF SALE. DESCRIPTIONS AND ILLUSTRATIONS OF TRIPLOID HYBRID WATERMELONS APPEARING ON SELLER’S WEBSITE AND PRODUCT LITERATURE REPRESENT TRIPLOID HYBRID WATERMELONS AS GROWN UNDER FAVORABLE GROWING CONDITIONS IN FAVORABLE GROWING AREAS. APPEARANCE AND PERFORMANCE MAY VARY IN OTHER GEOGRAPHICAL LOCATIONS AND UNDER DIFFERENT GROWING CONDITIONS. SELLER EXPRESSLY EXCLUDES ANY WARRANTY OF CONFORMITY TO DESCRIPTION, ILLUSTRATION OR SAMPLE AND EXTENDS NO WARRANTY THAT THE TRIPLOID HYBRID WATERMELON SEED SOLD WILL PRODUCE “SEEDLESS” FRUIT. ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY EXCLUDED.

I’ve read the foregoing terms and conditions of sale or transfer, and agree to be bound by it.

---

Buyer representative (PRINT)

---

Buyer representative SIGNATURE

---

DATE



## STEWARDSHIP AGREEMENT

### Section A

#### GROWER INFORMATION – Complete This Section - PLEASE PRINT CLEARLY

Grower Name (Last, First, MI)

Farming or "Doing Business As" (d/b/a/ Name):

Address:

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Business Phone: \_\_\_\_\_ County: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

Customer ID #: *(Assigned by Syngenta)* Technology #: *(Assigned by Syngenta)*

Dealer Name: **Rupp Seeds, Inc.**

Dealer Number: \_\_\_\_\_ (Office Use Only)

Dealer Phone: **419-337-1841**

Third Party Syngenta-Licensee: \_\_\_\_\_ (Office Use Only)

YOU, THE UNDERSIGNED GROWER, HEREBY ACKNOWLEDGE AND AGREE THAT: (1) YOU HAVE READ, UNDERSTAND, AND AGREE TO THE TERMS AND CONDITIONS OF THIS STEWARDSHIP AGREEMENT; (2) THIS IS A LEGALLY BINDING CONTRACT; (3) YOU ARE FULLY AUTHORIZED TO ENTER INTO THIS STEWARDSHIP AGREEMENT; AND (4) YOU ARE VOLUNTARILY ENTERING INTO THIS STEWARDSHIP AGREEMENT.

**Grower Signature**

**Date**

(individual at farm level responsible for planting)

#### Grower Name (Please Print Clearly)

Thank you for choosing one or more of the Licensed Technology. Return this Stewardship Agreement to the address shown below. If You have any questions regarding the Licensed Technology or this Stewardship Agreement please call: 1 (877) GRO-CORN or 1 (877) 476-2676.

#### Please return the agreement back to your Dealer at:

Fax to: 419-337-5491

Mail to: Rupp Seeds, Inc. | 17919 County Road B | Wauseon OH 43567

Email: [waivers@ruppseeds.com](mailto:waivers@ruppseeds.com)

This Stewardship Agreement ("Stewardship Agreement") is entered into between you ("Grower") and Syngenta Seeds, LLC ("Syngenta"). By signing and returning this Stewardship Agreement without modification (other than Section A above), Syngenta grants Grower a limited license to use the proprietary technology Bt11 and/or the Bt11 x MIR162 x GA21 stack (each, a "Licensed Technology") embedded in Syngenta's sweet corn seed product or in any seed product distributed by a third party Syngenta-licensee (collectively, "Seed Product"). Any proposed changes to this Stewardship Agreement other than in Section A are hereby rejected by Syngenta and shall have no effect unless approved in writing by Syngenta.

### STEWARDSHIP

Grower acknowledges receipt of the applicable Attribute® Grower Guide ("Stewardship Guide") which is incorporated herein by this reference and may be updated from time to time and found at [http://www.syngenta-us.com/seeds/vegetables/sweet\\_corn/sweet\\_corn.aspx](http://www.syngenta-us.com/seeds/vegetables/sweet_corn/sweet_corn.aspx) under the "Insect Protection" tab. Grower agrees to periodically check the website for the current Stewardship Guide and to read and comply with the then current Stewardship Guide. If Grower uses any Licensed Technology after Syngenta's release of a new version of the Stewardship Guide or Stewardship Agreement then Growers use shall be deemed an acknowledgement of receipt and agreement to comply with the then current: (i) Stewardship Guide, (ii) Stewardship Agreement, and (iii) the terms and conditions on the Seed Product packaging (collectively, the "Agreement"). The collective Agreement constitutes the entire agreement between Grower and Syngenta regarding the purchase and/or use of Licensed Technology and supersedes any other terms and conditions whether express or implied.

**GROWER'S LIMITED USE LICENSE(S).** Grower agrees that the Licensed Technology is protected under one or more U.S. patents (the "Patents"). Once this Stewardship Agreement is signed by the Grower then the Grower is granted the limited right, under the applicable Patents, to purchase and plant sweet corn Seed Products containing the Licensed Technology in the United States or Canada (the "Territory") but strictly according to the terms of the entire Agreement. Grower agrees that any Seed Product acquired in the Territory shall only be planted in the Territory. Further, Grower agrees not to plant Seed Product in the Territory which was acquired outside of the Territory.

**GROWER RESPONSIBILITIES.** Grower shall: (a) use Seed Products solely for planting a single commercial crop of fresh produce, forage or grain for food, feeding or processing; (b) not supply, transfer, resell, license or sublicense any Seed Products to any other person or entity for planting or any other purpose; (c) not to save any crop produced from Seed Products for planting by Grower or any other person or entity; (d) abide by the terms of the entire Agreement, as it may be updated from time to time as described above; (e) report to Dealer listed above, the number of acres and the location (county and state) where the Seed Product is planted within 45 days of planting; (f) communicate all applicable stewardship requirements and obligations to any of its employees and agents with respect to handling of or work involving Seed Products and/or the crop produced from Seed Products, and monitor such employees' and agents' compliance with Grower's responsibilities under the entire Agreement; and (g) not use or allow others to use Seed Products, the crop produced from Seed Products, the Licensed Technology or any plant material containing the Licensed Technology for: (i) crop breeding, (ii) research (including, without limitation, agronomic testing or generation of cooperative data against sweet corn seed not containing the Licensed Technology), (iii) generation of registration data or production of Seed Product (unless Grower has entered into a valid, written production agreement with a licensed seed company expressly authorizing one of more of these actions).

**TERM AND TERMINATION.** This Stewardship Agreement, once signed by Grower and accepted by Syngenta, will remain in effect until terminated by Grower or Syngenta. This Stewardship Agreement may be terminated by either party at any time for any reason by sending written notice of termination to the other party at the address for such party specified herein. In the case of termination of this Stewardship Agreement by Grower, such notice of termination must include Grower's full name and address. Further, Syngenta may terminate this Agreement for failure of Grower to fully comply with the Grower Responsibilities described above. If Grower violates any terms of this Stewardship Agreement, in addition to other remedies available to Syngenta and any owner of the Patents listed above, Grower may forfeit any right to obtain a license to the Licensed Technology in the future. If this Stewardship Agreement is terminated then Grower will no longer have a right to purchase or use Seed Products, but, Grower's obligations (including but not limited to the above Grower Responsibilities) and Syngenta's rights that arose under the Agreement prior to termination shall remain in effect.

**LIMITATIONS OF WARRANTIES AND REMEDIES.** Grower agrees that the Limitations of Warranties and Remedies expressly stated on the Seed Product packaging shall be incorporated in this section as if set forth in full.

### GENERAL PROVISIONS.

- This Stewardship Agreement and the parties' relationship shall be governed by the laws of the state of Illinois and the United States (other than the choice of laws rules).
- Grower's rights may not be transferred to any other person or entity without the prior written consent.
- Attribute® is a trademark of a Syngenta Group Company. LibertyLink® is a registered trademark of Bayer.

## REMEDY SWEET CORN – SUPPLEMENTAL AGREEMENT

<b>Section A</b> <b>GROWER INFORMATION – Complete This Section - PLEASE PRINT CLEARLY</b>								
Grower Name (Last, First, MI) _____ Farming or “Doing Business As” (d/b/a/ Name): _____ Address: _____ City: _____ State: _____ Zip Code: _____ Business Phone: _____ County: _____ E-mail Address: _____ Customer ID #: <u>(Assigned by Syngenta)</u> Technology #: <u>(Assigned by Syngenta)</u> Dealer Name: <b>Rupp Seeds, Inc.</b> Dealer Number: _____ (Office Use Only) Dealer Phone: <b>419-337-1841</b> Third Party Syngenta-Licensee: _____ (Office Use Only)	YOU, THE UNDERSIGNED GROWER, HEREBY ACKNOWLEDGE AND AGREE THAT: (1) YOU HAVE READ, UNDERSTAND, AND AGREE TO THE TERMS AND CONDITIONS OF THIS SUPPLEMENTAL AGREEMENT; (2) THIS IS A LEGALLY BINDING CONTRACT; (3) YOU ARE FULLY AUTHORIZED TO ENTER INTO THIS SUPPLEMENTAL AGREEMENT; AND (4) YOU ARE VOLUNTARILY ENTERING INTO THIS SUPPLEMENTAL AGREEMENT.  <table style="width: 100%; border-top: 1px solid black;"> <tr> <td style="width: 50%;"><b>Grower Signature</b></td> <td style="width: 50%;"><b>Date</b></td> </tr> <tr> <td colspan="2">(individual at farm level responsible for planting)</td> </tr> </table> <table style="width: 100%; border-top: 1px solid black;"> <tr> <td style="width: 100%; background-color: #ffff00;"><b>Grower Name (Please Print Clearly)</b></td> </tr> <tr> <td>           Thank you for choosing one or more of the Licensed Technology. Return this Supplemental Agreement to the address shown below. If you have any questions regarding the Licensed Technology, your Stewardship Agreement or this Supplemental Agreement please call: 1 (877) GRO-CORN or 1 (877) 476-2676.         </td> </tr> <tr> <td> <b>Please return the agreement back to your Dealer at:</b>            Fax to : 419-337-5491            Mail to: Rupp Seeds, Inc.   17919 County Road B   Wauseon OH 43567            Email: <a href="mailto:waivers@ruppseeds.com">waivers@ruppseeds.com</a> </td> </tr> </table>	<b>Grower Signature</b>	<b>Date</b>	(individual at farm level responsible for planting)		<b>Grower Name (Please Print Clearly)</b>	Thank you for choosing one or more of the Licensed Technology. Return this Supplemental Agreement to the address shown below. If you have any questions regarding the Licensed Technology, your Stewardship Agreement or this Supplemental Agreement please call: 1 (877) GRO-CORN or 1 (877) 476-2676.	<b>Please return the agreement back to your Dealer at:</b> Fax to : 419-337-5491 Mail to: Rupp Seeds, Inc.   17919 County Road B   Wauseon OH 43567 Email: <a href="mailto:waivers@ruppseeds.com">waivers@ruppseeds.com</a>
<b>Grower Signature</b>	<b>Date</b>							
(individual at farm level responsible for planting)								
<b>Grower Name (Please Print Clearly)</b>								
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<b>Please return the agreement back to your Dealer at:</b> Fax to : 419-337-5491 Mail to: Rupp Seeds, Inc.   17919 County Road B   Wauseon OH 43567 Email: <a href="mailto:waivers@ruppseeds.com">waivers@ruppseeds.com</a>								

This Supplemental Agreement (“Supplemental Agreement”) is entered into between you (“Grower”) and Syngenta Seeds, LLC (“Syngenta”) and supplements the terms and conditions of your Stewardship Agreement with Syngenta (by its predecessor-in-interest, Syngenta Seeds, Inc.). By signing and returning this Supplemental Agreement without modification (other than Section A above) and pursuant to the terms of this Supplemental Agreement and the Stewardship Agreement, Syngenta grants Grower a limited license to use the proprietary technology Bt11 x MIR162 x GA21 stack (the “Licensed Technology”) embedded in Syngenta’s “Remedy” sweet corn seed product or in any seed product distributed by a third party Syngenta-licensee (collectively, “Seed Product”). Any proposed changes to this Supplemental Agreement other than in Section A are hereby rejected by Syngenta and shall have no effect unless approved in writing by Syngenta.

**TERM AND TERMINATION.** This Supplemental Agreement, once signed by Grower and accepted by Syngenta, will remain in effect until either terminated by Grower or Syngenta, or will be terminated automatically upon the termination of your Stewardship Agreement. This Supplemental Agreement may be terminated by either party at any time for any reason by sending written notice of termination to the other party at the address for such party specified herein. In the case of termination of this Supplemental Agreement by Grower, such notice of termination must include Grower’s full name and address. If Grower violates any terms of this Supplemental Agreement and/or Grower’s Stewardship Agreement, in addition to other remedies available to Syngenta and any owner of the Patents (as defined in the Stewardship Agreement), Grower may forfeit any right to obtain a license to the Licensed Technology in the future. If this Supplemental Agreement is terminated then Grower will no longer have a right to purchase or use Seed Product, but, Grower’s obligations (including but not limited to the Grower Responsibilities as set forth in the Stewardship Agreement) and Syngenta’s rights that arose under the Stewardship Agreement and this Supplemental Agreement prior to termination shall remain in effect.

**ACKNOWLEDGEMENT; LIMITATION OF WARRANTIES AND REMEDIES.** Grower acknowledges and understands that Grower has been informed that under certain stress conditions, Remedy sweet corn may exhibit tassels and or glumes (male parts) growing out of the ear (female part) (the “Notice”). By its signature on this Supplemental Agreement, Grower acknowledges and agrees:

- Grower has been duly informed of the Notice;
- Grower accepts the Seed Product “as is”, “where is” and with all faults and to assume all risks associated with use of the Seed Product and any actual or perceived impact on any crop yield or quality, and Grower will indemnify and hold harmless Syngenta and Syngenta authorized Distributors, and their respective directors, officers, employees and affiliates from any claims related, directly or indirectly, to the performance or non-performance of the Seed Product and its impact on any crop yield or quality; and
- Grower waives any and all claims and releases Syngenta and Syngenta authorized Distributors, and their respective directors, officers, employees and affiliates, from any and all liabilities relating, directly or indirectly, to the Notice and the use of the Seed Product.

### GENERAL PROVISIONS.

- This Supplemental Agreement and the parties’ relationship shall be governed by the laws of the State of Minnesota and the United States (other than the choice of laws rules).
- Grower’s rights may not be transferred to any other person or entity without the prior written consent of Syngenta.

Syngenta Seeds, LLC Attn: Attribute Stewardship 11055 Wayzata Blvd., Minnetonka, MN 55305  
 Email: [syngenta.stewardship@syngenta.com](mailto:syngenta.stewardship@syngenta.com)  
 Fax: 1-800-858-8664



# RUPP SEED VEGETABLE CATALOG COVERS 1986-2020





**Rupp Seeds Inc.**  
**17919 County Road B**  
**Wauseon, Ohio 43567**

**PLACE YOUR ORDER - CALL 800-700-1199**

We've added 34 new products to this 2021 catalog. Each one offers improvements such as eating quality, yield, disease resistance, and market suitability. Check the inside front cover for a complete list of new products.



XANADU pg. 39 **NEW**



SAILFISH pg. 73 **NEW**



YOSEMITE pg. 89 **NEW**



RED SNAPPER pg. 114 **NEW**