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Full Count®
Plant program

2021 Guide

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That's billion, with a "b".

Longevity: 15+ years of proven success with transplants

Syngenta genetics: now on more than half of the U.S. watermelon acreage

Experienced, dedicated customer service: over 100 years experience

Variety choice: nine market-leading seedless varieties and counting

Technology-based: multiple U.S. patents, dedicated research and development teams, Super-Pollenizer™ technology, Full Count® Duals and Deuces companion transplant programs

Full Count®
Plant program

Choice, Flexibility, Simplicity

FULL COUNT® 2021

Our program has changed for 2021. SP-7 is our latest development in non-harvestable pollenizers with demand increasing yearly, we are also offering Blended Pollenizers. We still have competitive value pricing across the Full Count product range and can supply you with the basic seedless transplant to a Full Count companion transplant like Fascination/SP-7 Deuces.

The Full Count 2021 product range includes:

- BASIC SEEDLESS TRANSPLANT: We supply you with a Syngenta seedless watermelon variety transplant.
- POLLENIZER TRANSPLANTS: We offer three different types of pollenizers which include seeded Allsweet types, non-harvestable types (SP-7), and blended pollenizers.
- SP BUNDLE AT A 3 TO 1 RATIO: This is a traditional plant bundle but with a non-harvestable pollenizer. Non-harvestable pollenizers from Syngenta are designed to be non-competitive with a maximum amount of pollen available. A standard 3:1 SP bundle will accommodate traditional transplant operations, and provide initial access to a Super Pollenizer™ from Syngenta.
- FULL COUNT DUALS: Approximately one third of the cells in the transplant tray will have both a seedless watermelon transplant and a pollenizer. This is a Full Count companion transplant, which offers a choice of three ratio set options between an Allsweet variety and a Super Pollenizer™. Full Count Duals provide a diverse pollen source to help mitigate risk, as well as increasing transplant efficiency and reducing transplant labor costs.
- FULL COUNT SP DEUCES: The ultimate Full Count companion transplant! Approximately one third of the cells in the transplant tray will have both a seedless watermelon transplant and a SP pollenizer. Super Pollenizers are non-competitive and provide maximum amounts of pollen during the season. Full Count SP Deuces help to maximize productivity. Full Count companion transplants increase transplant efficiency and reduce transplant labor cost.

Value pricing:

The Full Count offering is modestly priced with basic seedless transplants at a competitive grower price with a minimal grower price increase per product offerings listed above as you move from creating your own plant bundle to the Full Count SP Deuces offering. We feel that there are several advantages of Full Count Duals and Full Count SP Deuces that provide additional value to our customers. **If these are not yet part of your planting program, you need to talk to your Full Count transplant representative and compare the different scenarios through the Full Count Product Selection Worksheet and the Full Count Pricing Calculator as soon as possible!**

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Increase your productivity potential with

Full Count Deuces companion transplants

FEATURES

- Comes pre-set with a 3:1 seedless to Super Pollenizer ratio
- Plugs are easy to order and easy to use; simply load the plugs, pull and transplant
- Re-plant guesswork is eliminated; only order the quantity needed and re-plant
- Available with select Syngenta seedless watermelon varieties

BENEFITS

- Increases transplant efficiency as pollenizer and seedless ratios are pre-set making transplanting quick and efficient with no mix-ups
- Savings of up to 35 percent in transplant labor costs by requiring fewer field employees*
- Increases productivity as transplant crews can cover more acreage faster, because fewer plugs are pulled

Transplant labor savings as high as 35 percent!*

SP-7

* Based on studies conducted by Syngenta in AZ/CA.

Diversify your pollen source with

Full Count Duals companion transplants

FEATURES

- Comes pre-set with a 3:1 seedless variety to pollenizer variety ratio; half of the pollenizers are a seeded watermelon variety and half are a Super Pollenizer variety
- Plugs are easy-to-order and easy-to-use; simply pull and transplant
- Re-plant guesswork is eliminated; order the quantity needed and re-plant
- Available with select Syngenta seedless watermelon varieties

BENEFITS

- Delivery of dual pollen source with two different pollenizers without hassle at transplanting
- Pre-set seedless/pollenizer variety ratio makes transplanting quick and efficient with fewer or no mix-ups
- Savings of up to 35 percent in transplant labor costs by requiring fewer field employees*
- Helps increase productivity as transplant crews can cover more acreage faster

Full Count Duals plant

SP-7

Estrella

* Based on studies conducted by Syngenta in AZ/CA.

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Syngenta Variety

Watermelon comparison

VARIETY	VARIETY CHARACTERISTICS					
	Rind Pattern	Days to Maturity	Comparative Maturity	Fruit Shape	Plant Vigor	Fruit Weight Range (lbs)
SWEET DAWN	Classic rind type	74	Early	Blocky	Low	16 - 20
MELODY	Rich, dark rind	79	Early	Round	Medium	14 - 16
EXCURSION	Classic rind type	81	Early-Mid	Blocky	High	17 - 22
FASCINATION	Rich, dark rind	83	Early-Mid	Blocky	Medium	15 - 20
NEW POWERHOUSE	Rich, dark rind	86	Early-Mid	Blocky	High	13 - 16
CAPTIVATION	Rich, dark rind	89	Early-Mid	Blocky	Medium	13 - 17
NEW SUMMERLICOUS	Rich, dark rind	89	Full Season	Blocky	High	14 - 18
EXCLAMATION	Rich, dark rind	90	Full Season	Blocky	Very High	17 - 21

FRUIT SIZE RANGE			INTERMEDIATE DISEASE RESISTANCE		KEY FEATURES
36-count	45-count	60-count	Fusarium Wilt race 1	Anthracnose race 1	
30-40%	40-50%	20-30%	Yes	Yes	Early maturity! Large fruit size. Reduced incidence of hollow heart. Adapted well to the Eastern U.S.
5-15%	65-75%	15-25%	No	Yes	Early Maturity! Improved fruit set under cool conditions.
50-60%	30-40%	5-15%	Yes	Yes	Large fruit size—mostly 36-count fruit
20-30%	45-55%	20-30%	Yes	Yes	Industry leader. Exceptional fruit quality. Blend of 45- and 36-count fruit.
5-15%	65-75%	10-15%	Yes	Yes	Can develop brix early, allowing for early harvest if needed. Mostly medium fruit size. Excellent field holding ability.
15-25%	60-70%	10-20%	Yes	Yes	Medium fruit size. Uniform fruit shape and size. Complements Fascination.
10-20%	65-75%	10-20%	Yes	Yes	Similar fruit size to Captivation. IR to Powdery Mildew. Excellent field holding ability. High yield potential.
45-55%	35-45%	5-15%	Yes	Yes	Large fruit size. Firm flesh. Excellent field holding ability. Strong vine vigor.

Fon: 1 Fusarium wilt caused by *Fusarium oxysporum* f. sp. *niveum*

Co:1 Anthracnose caused by *Colletotrichum orbiculare*

Orange shading signifies that the variety is a key variety for specific characteristic shaded.

In cases where specific races or strains are not noted, the variety is resistant to some, but not necessarily all known races or strains of the pathogen. For complete disease resistance information, please visit www.SyngentaUS.com/vegetables

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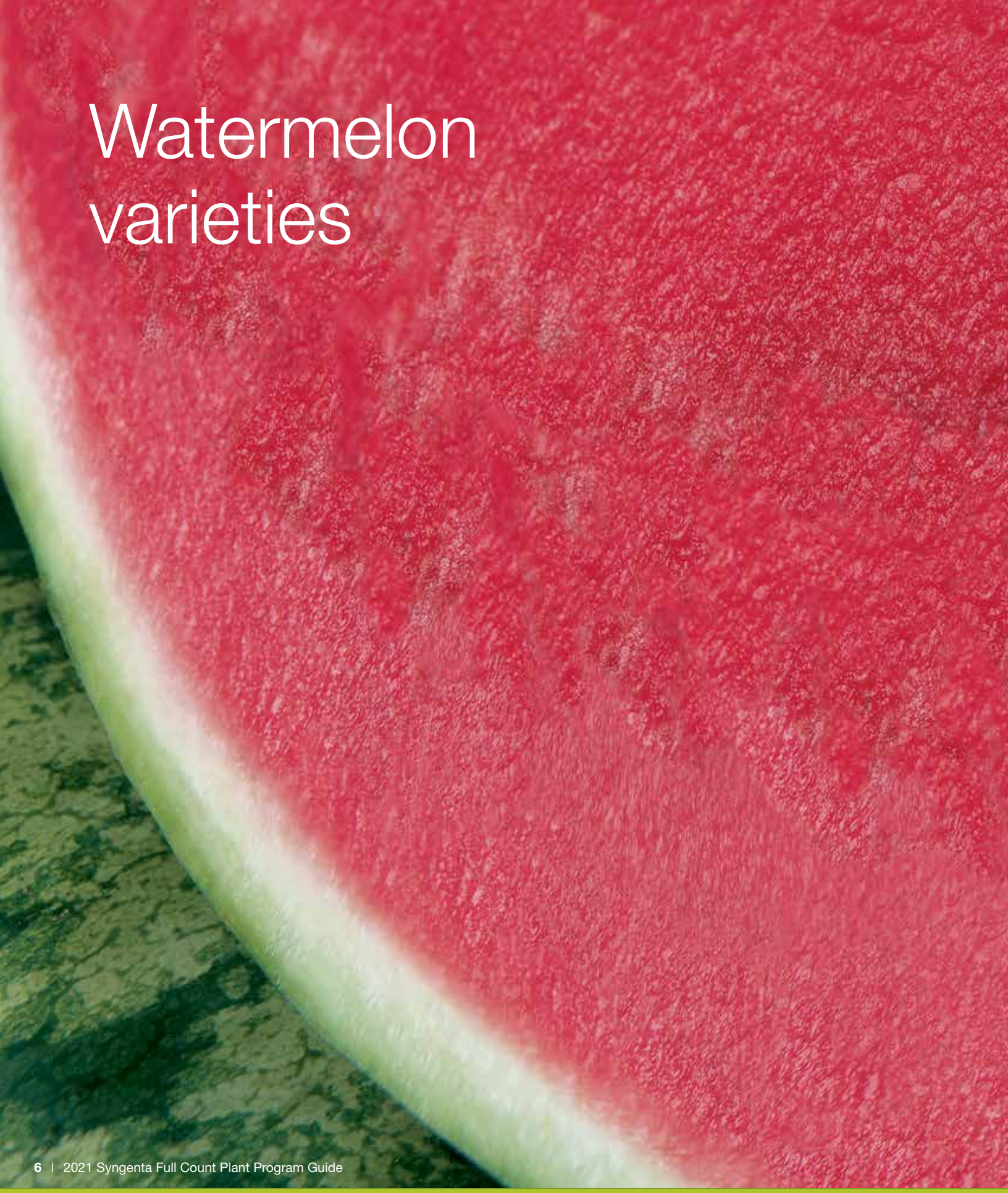
Watermelon varieties



Sweet Dawn

A new standard in quality

Early with exceptionally sweet flavor

FIELD/GROWER FEATURES

- Early maturity, similar to Melody maturity
- Dark red, firm flesh and very smooth skin
- Large fruit size early, with mostly 45- and 36-count fruit and a few 60-count fruit
- Intermediate resistance to Fusarium wilt race 1 and Anthracnose race 1
- Has shown less hollow heart than traditional varieties in early season production areas
- Under conditions favorable to water ring has shown minimal issues as compared to standard varieties

BUYER/CONSUMER TRAITS

- First-to-market advantages
- Attractive appearance and great watermelon flavor for high market demand
- Ideal for early season plantings in the eastern U.S.

TECHNICAL DATA	
Approx. days to maturity	74
Fruit shape	Blocky
Fruit weight (lbs)	16 - 20
Rind pattern	Light green, very smooth skin with hazy, broad, medium-dark green stripes
Flesh description	Dark red, firm flesh
Disease resistance	**IR:** Co: 1 / Fon: 1

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Melody

Hit the early market window

FIELD/GROWER FEATURES

- First-to-market advantage: five to seven days earlier than Tri-X 313
- Heavy, concentrated set of 14 to 16 pound fruit
- Intermediate resistance to Anthracnose
- Exceptional yield potential in early season fields
- 45- to 60-count fruit

BUYER/CONSUMER TRAITS

- Richer rind pattern than standard seedless varieties for an appealing appearance
- Uniform fruit with attractive flesh
- Brilliant, sweet red flesh

TECHNICAL DATA	
Approx. days to maturity	79
Fruit shape	Globe
Fruit weight (lbs)	14 - 16
Rind pattern	Medium green with deep green stripes
Flesh description	Dark red flesh
Disease resistance	**IR:** Co: 1

A sweet option for early market returns!

Excursion

For the early market

FIELD/GROWER FEATURES

- Large fruit size potential with 50 percent or more 36-count fruit
- Excels in early to main season plantings where large fruit size is desired to meet market demands
- Matures up to seven days earlier than the current “standard” to hit early markets
- Large, oval-shaped fruit with classic Crimson stripe appearance
- Strong and vigorous plant for better performance under stressful conditions
- Improved disease resistance with intermediate resistance to Fusarium wilt race 1 and Anthracnose race 1
- In the field has shown stronger Fusarium tolerance than comparable varieties

TECHNICAL DATA	
Approx. days to maturity	81
Fruit shape	Blocky
Fruit weight (lbs)	17 - 22
Rind pattern	Light green with hazy, broad, medium-dark green stripes
Flesh description	Deep red, firm flesh
Disease resistance	**IR:** Co: 1 / Fon: 1

BUYER/CONSUMER TRAITS

- Improved flesh quality over standard varieties in this segment
- Under conditions favorable to water ring, this variety has shown minimal issues as compared to standard varieties

High yield potential with all-time classic appearance

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Fascination

The industry leader

FIELD/GROWER FEATURES

- Attractive red, firm flesh
- Very small “pips” and great watermelon flavor for retail markets
- Improved disease resistance with intermediate resistance to Fusarium wilt race 1 and Anthracnose race 1
- Uniform 45- and 36-count blocky fruit
- Excellent yield potential
- Maturity is usually two to three days earlier than mid-season varieties

TECHNICAL DATA	
Approx. days to maturity	83
Fruit shape	Blocky
Fruit weight (lbs)	15 - 20
Rind pattern	Very deep, rich green skin with a medium Crimson Sweet stripe
Flesh description	Dark red, firm flesh
Disease resistance	**IR:** Co: 1 / Fon: 1

BUYER/CONSUMER TRAITS

- Ideal for fresh-cut
- Ships and holds well
- Superior eye appeal; glossy, rich rind color

Combine with Syngenta Super Pollenizer for the best bundle in the industry!

Powerhouse

Fruitful 45-Count

FIELD/GROWER FEATURES

- High percentage of 45-count fruit
- Can develop sugars early in the flesh potentially allowing for an early harvest
- Thicker rind for improved shipping
- Improved fruit holding ability in the field
- Firm flesh, nice internal color
- Potential for high yields
- Improved vine vigor when compared to other varieties
- Uniform blocky fruit size and shape
- Broadly adapted

BUYER/CONSUMER TRAITS

- Full flavor
- Preferred fruit size
- Early market advantage
- Ideal for East and West, USA

TECHNICAL DATA	
Approx. days to maturity	86
Fruit shape	Blocky
Fruit weight (lbs)	13 - 16
Rind pattern	Deep green skin color with a Crimson Sweet stripe
Flesh description	Red, firm flesh, good field holding
Disease resistance	**IR:** Co: 1 / Fon: 1

Improved 45 type!

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Captivation

A fascinating 45-count melon

FIELD/GROWER FEATURES

- Mostly 45-count fruit for whole fruit markets
- Uniform, consistent fruit size and shape provides a high quality product
- Strong disease resistance and plant growth habit for less than ideal field conditions
- Improved fruit set for high yield potential
- Maturity 4 to 5 days later than Fascination

BUYER/CONSUMER TRAITS

- Firm flesh for delivering a higher quality fruit to the market
- Attractive red flesh for repeat sales

Uniform size in a 45!

TECHNICAL DATA	
Approx. days to maturity	89
Fruit shape	Blocky
Fruit weight (lbs)	13 - 17
Rind pattern	Deep green skin color with a Crimson Sweet type skin
Flesh description	Red, firm flesh
Disease resistance	**IR:** Co: 1 / Fon: 1

Summerlicous

Extended Harvest Window

FIELD/GROWER FEATURES

- High percentage of 36 and 45-count fruit
- Improved fruit holding ability in the field
- Firm flesh, nice internal color
- Potential for high yields
- Uniform blocky fruit size and shape
- Broadly adapted
- Uniform blocky fruit size and shape

BUYER/CONSUMER TRAITS

- Full flavor
- Ideal for East and West, USA

TECHNICAL DATA	
Approx. days to maturity	89
Fruit shape	Blocky
Fruit weight (lbs)	14 - 18
Rind pattern	Deep green skin color with a Crimson Sweet stripe
Flesh description	Red, firm flesh, good field holding
Disease resistance	**IR:** Co: 1 / Fon: 1 / Px: 1

Improved Field Holding!

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Exclamation

The full season choice

A reliable, full-season variety!

FIELD/GROWER FEATURES

- Larger fruit size: mostly 36- and 45-count fruit
- Full season maturity, later than Fascination by 5 to 7 days
- Strong disease package helps to protect your field investment
- Fruit has shown good field holding ability, allowing for more flexible harvest schedule
- Attractive, very firm red flesh with small-medium pips
- Performs well under warm-to-hot growing conditions
- Uniform fruit size; blocky fruit shape
- Good fruit set for high yield potential
- Tends to have strong vine vigor

BUYER/CONSUMER TRAITS

- Rich Crimson Sweet rind pattern that buyers prefer
- Crisp, sweet, red flesh with small pips
- Firm flesh makes this an excellent choice for fresh cut

TECHNICAL DATA	
Approx. days to maturity	90
Fruit shape	Blocky
Fruit weight (lbs)	17 - 21
Rind pattern	Deep green skin color with a Crimson Sweet stripe
Flesh description	Red, firm flesh
Disease resistance	**IR:** Co: 1 / Fon: 1

Sugar Fresh

Consistent, traditional seedless

FIELD/GROWER FEATURES

- Large fruit size
- Medium to dark red flesh
- Traditional Crimson Sweet type rind pattern

BUYER/CONSUMER TRAITS

- Vigorous plant
- Good uniformity of fruit shape and size

TECHNICAL DATA	
Approx. days to maturity	87
Fruit shape	Blocky
Fruit weight (lbs)	16 - 20
Rind pattern	Light green with hazy, broad medium-dark green stripes
Flesh description	Medium to dark red flesh
Disease resistance	**IR:** None reported

Sweet Gem

Distinctive look for local markets

FIELD/GROWER FEATURES

- Mostly 60- and 45-count seedless fruit with round shape
- Good fruit set with early maturity and excellent yield potential
- Rich, glossy dark green rind with classy appearance
- Attractive firm, red flesh with small pips
- Crisp, sweet, mouth-watering flavor

BUYER/CONSUMER TRAITS

- Distinctive look and superior flavor; ideal for roadside and local markets
- Unique, advanced features create opportunity for premium market pricing

TECHNICAL DATA	
Approx. days to maturity	79
Fruit shape	Globe
Fruit weight (lbs)	13 - 16
Rind pattern	Rich, glossy dark green skin
Flesh description	Dark red flesh
Disease resistance	None reported

Ideal for local markets!

Sirius

Uniformity plus quality

A reliable, full-season variety!

FIELD/GROWER FEATURES

- Intermediate resistance to Fusarium wilt race 1
- Medium to large fruit size with mostly 8 and 6 count fruit
- Uniform fruit size for consistent performance
- Medium rind thickness

BUYER/CONSUMER TRAITS

- Provides a desirable range of fruit sizes
- Improved post-harvest handling due to medium rind thickness
- Good plant vigor with maturity approximately 2-3 days earlier than similar varieties in the same segment

TECHNICAL DATA	
Approx. days to maturity	74
Fruit shape	Globe
Fruit weight (lbs)	5.5 - 6.5
Rind pattern	Medium thick with Crimson Sweet skin
Flesh description	Red
Disease resistance	**IR:** Fon: 1

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SP-7

A unique combination of attributes

The ultimate pollenizer companion to your Full Count selection

FIELD/GROWER FEATURES

- SP-7 has shown to deliver early male blooms that are earlier than current commercial varieties
- 25% larger male flowers plus a higher production of male flowers than SP-6
- In trials, the number of male blooms per plant has been nearly double of SP-6
- The vine has a high level of branching which increases the production of male flowers
- Trials have shown extended flowering with pollen available throughout the entire growing season
- Intermediate resistance to: Fusarium wilt race 1, Anthracnose race 1 and powdery mildew

BUYER/CONSUMER TRAITS

- 2016/17 university trials have shown improved seedless watermelon fruit set and/or fruit size with SP-7
- No competitive effect on the yield of seedless watermelon
- Easy to see fruit with a distinct rind pattern and a brittle rind which crushes easily
- Crop damage caused by harvesting pollenizer varieties is eliminated

** North Carolina State University*

** Clemson State University*

Full Count®
Plant program

Watermelon plants you can count on

Take the guesswork out of your seed purchase

You need plants that are usable when transplanting. Full Count® delivers 100 percent of your needs based on actual plants that are usable. Syngenta transplant producers account for weak, unusable plants in the order when delivering to the field.

Avoid paying for unnecessary seed, transplant and freight costs

Full Count gives you the assurance of meeting 100 percent of your plant needs, without the worries of being long or short in plants that will ultimately add to your production costs.

Sow when you are ready

Syngenta has placed seed inventories with its Full Count producers to ensure that your order has just the right amount of growing days in the greenhouse to meet your plant quality requirements. Forget about just-in-time seed deliveries that throw your production plan off schedule.

Save on preplant costs by paying after you transplant in the field

Your Syngenta Full Count dealer invoices you after the plants are delivered to the field with standard 60-day terms. Due to increasing costs associated with field preparation, fertilizer and irrigation setup, preplant cost savings help to potentially increase your cash flow right from the start.

Receive preferred volume pricing

By placing a “contracted order,” you receive a discount based on the total cumulative volume of plants purchased through the program. The discount can save you $15-$30 per acre, depending on the order quantity. Discounts apply regardless of region, transplant producer or varieties contracted.

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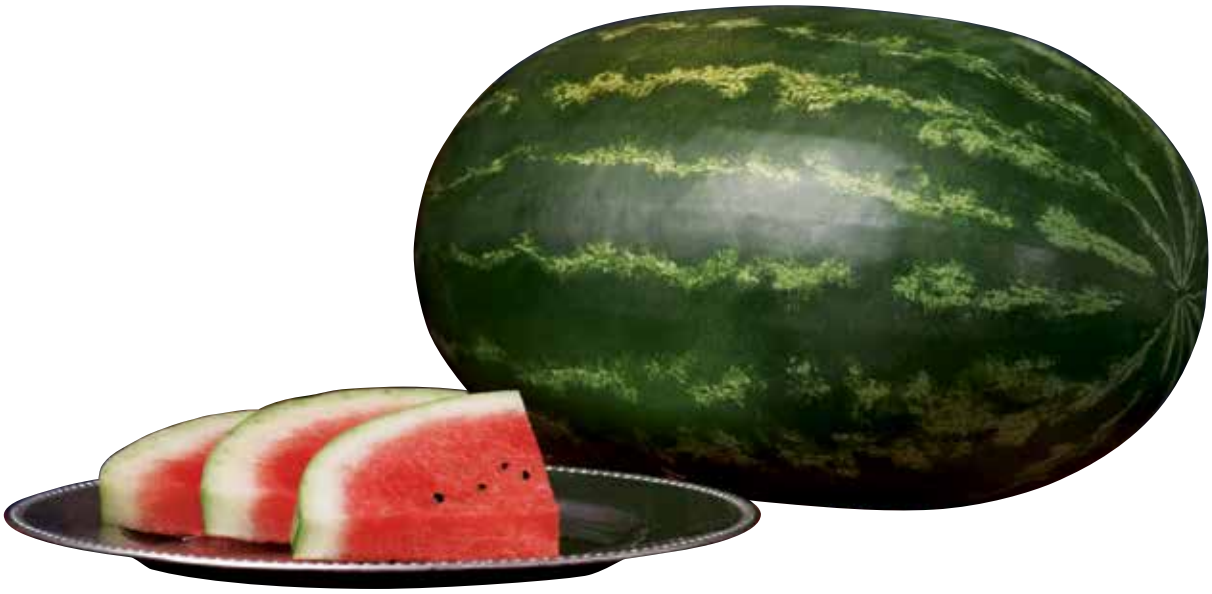
Estrella

A star performer in your field



FIELD/GROWER FEATURES

- Consistently high-quality blocky 36- to 45-count fruit
- Strong rind provides protection for fruit in all field conditions
- Intermediate resistance to Fusarium wilt race 1 and Anthracnose race 1

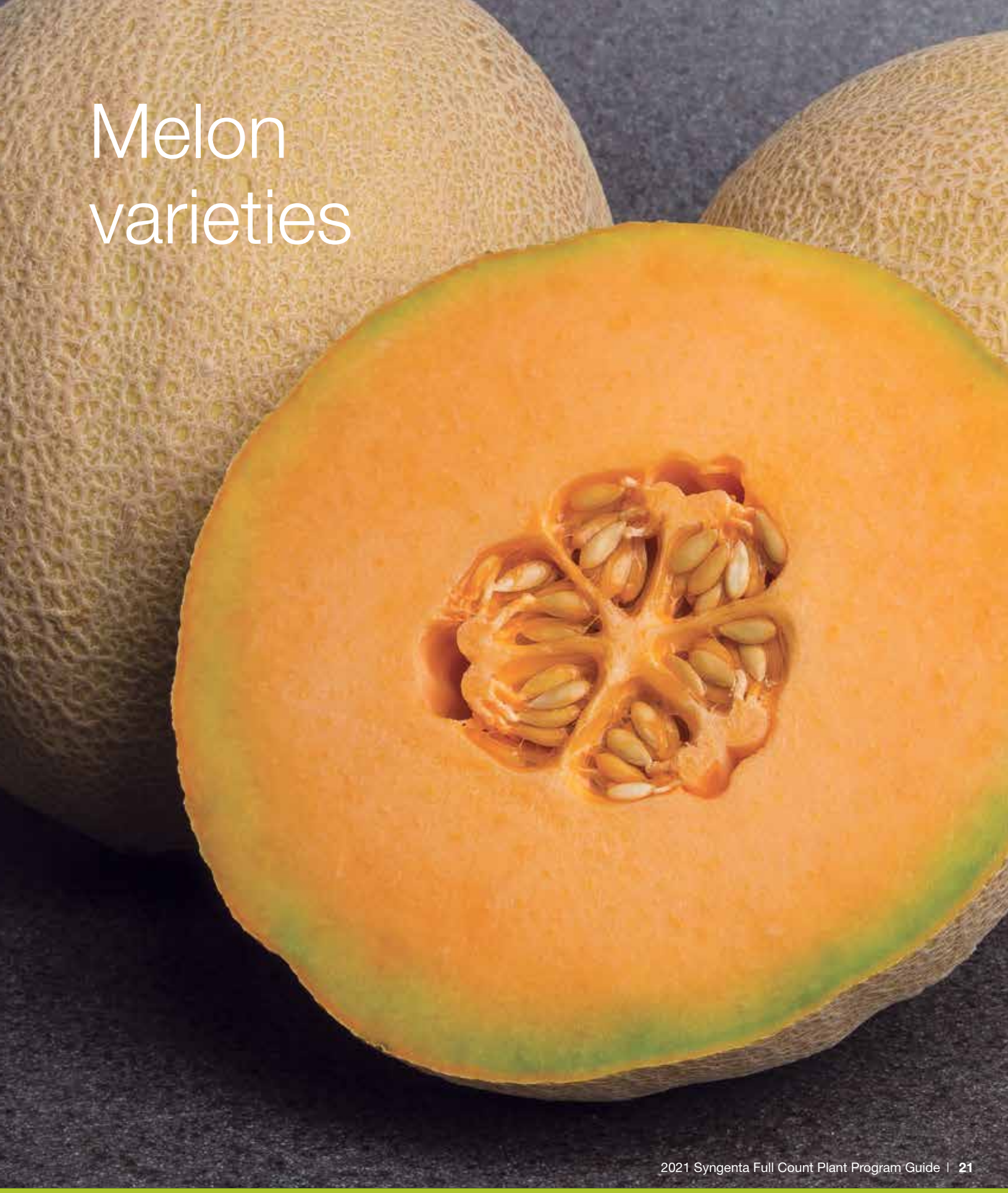
BUYER/CONSUMER TRAITS

- Small seed cavity extends shelf life
- Glossy Allsweet appearance creates consumer appeal
- Firm, sweet, red flesh with the small seeds that consumers prefer

TECHNICAL DATA	
Approx. days to maturity	80
Fruit shape	Long blocky
Fruit weight (lbs)	20 - 24
Rind pattern	Dark green with broken, light green stripes
Flesh description	Dark red flesh with small seed
Disease resistance	**IR:** Co: 1 / Fon: 1

Broadly adapted, plant-anywhere variety provides high-quality fruit!

Melon varieties



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Astound

SPOTLIGHT

FIELD/GROWER FEATURES

- Firm, orange flesh with a small, tight cavity
- High quality, netted appearance
- Extended shelf life
- Enhanced vine strength
- Great disease resistance package
- Bred for resistance to cotton aphid

BUYER/CONSUMER TRAITS

- Improved internal fruit quality and flesh firmness for extended shelf life
- Strong and vigorous plant to stand up to field stress and resist fruit cracking
- Excels in main to late-season plantings in eastern melon growing regions

TECHNICAL DATA	
Approx. days to maturity	75
Avg. fruit length x width (in)	7.5 x 6.7
Interior appearance	Small tight cavity with orange flesh
Exterior appearance	Netted
Disease resistance	**HR:** Px: 1 / Px: 2US / Fom: 0, 1, 2 **IR:** Ag / Px: 3.5 **T:** S

Accolade

SPOTLIGHT

FIELD/GROWER FEATURES

- Tight seed cavity with firm, orange flesh
- Medium netted exterior
- Extended shelf life
- Enhanced vine strength
- Great disease resistance package
- Bred for resistance to cotton aphid

BUYER/CONSUMER TRAITS

- Improved internal fruit quality for extended shelf life
- Improved shelf life due to flesh firmness
- Strong and vigorous plant to stand up to field stress and resist fruit cracking
- Excels in early to main-season plantings in eastern melon growing regions

TECHNICAL DATA	
Approx. days to maturity	73
Avg. fruit length x width (in)	7.5 x 6.7
Interior appearance	Small tight cavity with orange flesh
Exterior appearance	Netted
Disease resistance	**HR:** Px: 1 / Px: 2US / Fom: 0, 1, 2 **IR:** Ag / Px: 3.5 **T:** S

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Aphrodite

Proven performance year after year

FIELD/GROWER FEATURES

- Early maturing Athena type
- Produces large melons weighing 6 to 7 pounds
- High resistance to Fusarium wilt races 0, 1 and 2
- Approximately 72 days to maturity

BUYER/CONSUMER TRAITS

- Improved fruit netting, providing an advantage in fall plantings
- Complement to Athena for early and late season plantings in the East
- Has done well in midwest plantings

TECHNICAL DATA	
Approx. days to maturity	72
Avg. fruit length x width (in)	7 x 6.5
Interior appearance	Thick flesh similar to Athena
Exterior appearance	Medium-coarse netting, slight suture that is netted
Disease resistance	**HR:** Fom: 0, 1, 2 / Px: 1 **T:** S

The perfect companion to Athena!

Athena

The market standard

FIELD/GROWER FEATURES

- Proven performance in major melon production areas
- Good sizes with fruit averaging 5 to 6 pounds
- High resistance to Fusarium wilt races 0, 1 and 2
- Approximately 75 days to maturity

BUYER/CONSUMER TRAITS

- High quality and flavor sets the market standard!
- The name “Athena” is well-recognized from broker to consumer

TECHNICAL DATA	
Approx. days to maturity	75
Avg. fruit length x width (in)	6.5 x 6
Interior appearance	Thick flesh; very firm for an eastern type
Exterior appearance	Coarse netting; minor, netted indentations
Disease resistance	**HR:** Fom: 0, 1, 2 / Px: 1, 2US **IR:** Gc: 1 / Px: 2 **T:** S

Reliable, proven performance in an Eastern shipper!

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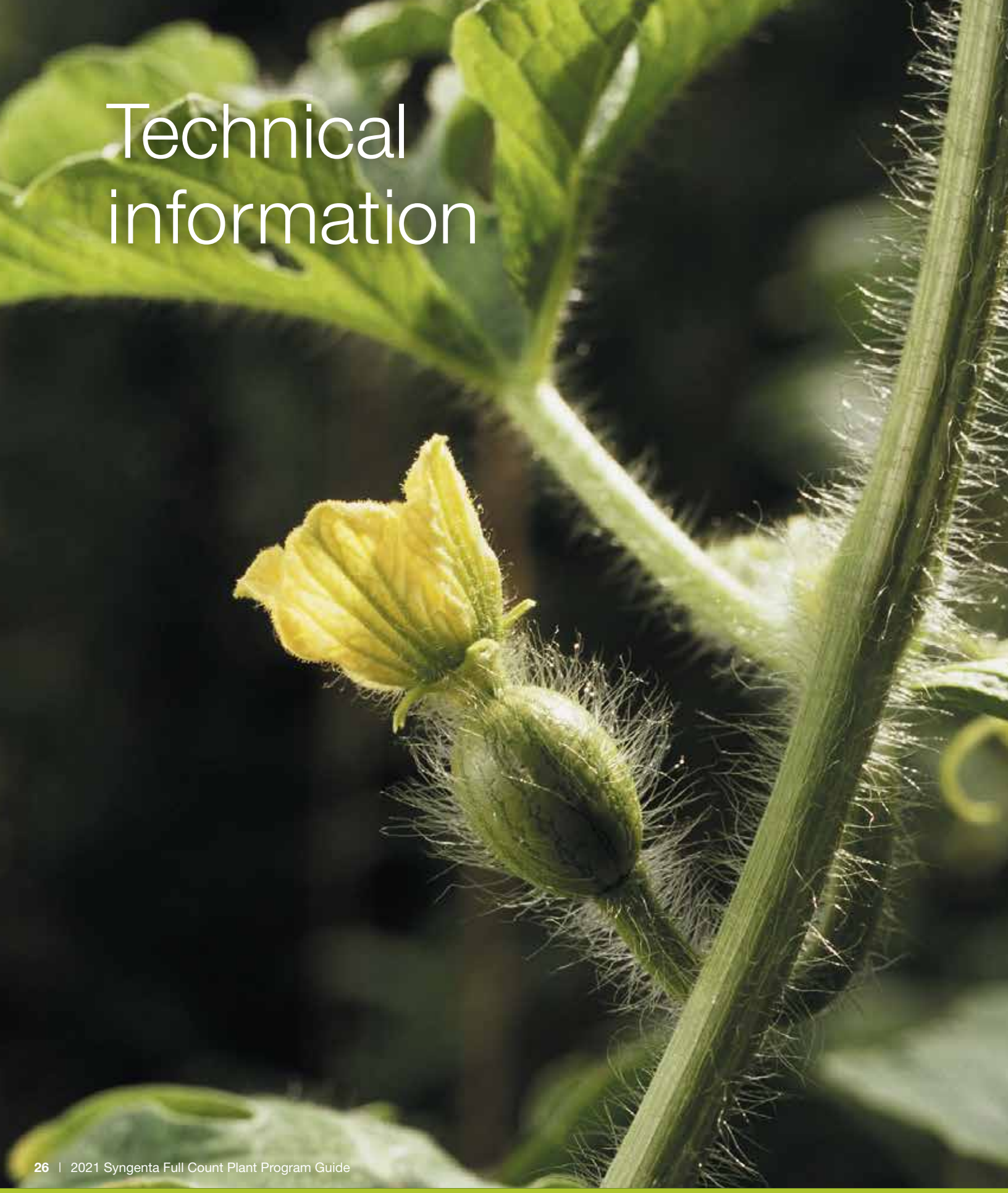
Technical information



Technical data: watermelon

Variety	Approximate days to maturity	Fruit shape	Fruit weight range (lbs)	Rind pattern	Flesh description	Disease resistance
SEEDLESS						
Sweet Dawn	74	Blocky	16 - 20	Light green, very smooth skin with hazy, broad, medium-dark green stripes	Dark red, firm flesh	**IR:** Co: 1 / Fon: 1
Melody	79	Globe	14 - 16	Medium green with deep green stripes	Dark red flesh	**IR:** Co: 1
Sweet Gem	79	Globe	13 - 16	Rich, glossy, dark green skin	Dark red flesh	None reported
Excursion	81	Blocky	17 - 22	Light green with hazy, broad medium-dark green stripes	Red, firm flesh	**IR:** Co: 1 / Fon: 1
Fascination	83	Blocky	15 - 20	Very deep, rich green skin with a medium Crimson Sweet stripe	Dark red, firm flesh	**IR:** Co: 1 / Fon: 1
Tri-X 313	86	Blocky	15 - 18	Light green with hazy, broad, medium-dark green stripes	Red flesh	None reported
Powerhouse NEW	86	Blocky	13 - 16	Deep green skin color with a Crimson Sweet stripe	Red, firm flesh, good field holding	**IR:** Co: 1 / Fon: 1
Captivation	89	Blocky	13 - 17	Deep green skin color with a Crimson Sweet type skin	Red, firm flesh	**IR:** Co: 1 / Fon: 1
Summerlicous NEW	89	Blocky	14 - 18	Deep green skin color with a Crimson Sweet stripe	Red, firm flesh, good field holding	**IR:** Co: 1 / Fon: 1 / Px: 1
Exclamation	90	Blocky	17 -21	Deep green skin color with a Crimson Sweet stripe	Red, firm flesh	**IR:** Co: 1 / Fon: 1
Sugar Fresh	87	Blocky	16 - 20	Light green with hazy, broad medium-dark green stripes	Medium to dark red flesh	None reported
PERSONAL SIZE SEEDLESS						
Sirius	74	Globe	5.5 - 6.5	Medium thick with Crimson Sweet Skin	Red	**IR:** Fon: 1
SEEDED						
Estrella	80	Long blocky	20 - 24	Dark green with broken, light green stripes	Dark red flesh with small seed size	**IR:** Co: 1 / Fon: 1
Sangria	80	Elongated	20 - 24	Dark green with broken, light green stripes	Red flesh with medium seed size	**IR:** Co: 1 / Fon: 1
Jamboree	82	Elongated	24 - 28	Dark green with broken, light green stripes	Red flesh with medium seed size	**IR:** Co: 1 / Fon: 1
POLLENIZERS						
SP-7	75	Globe	1 - 2	Light green exterior with no stripes and thin, brittle rind	Medium yellow flesh	**IR:** Co: 1 / Fon: 1 / Px: 1

Technical data: melon

Variety	Approx. days to maturity	Average fruit length x width (in)	Interior appearance	Exterior appearance	Disease resistance
MELON					
Aphrodite	72	7 x 6.5	Thick flesh similar to Athena	Medium-coarse netting, slight suture that is netted	**HR:** Fom: 0, 1, 2 / Px: 1 **T:** S
Athena	75	6.5 x 6	Thick flesh; very firm for an eastern type	Coarse netting; minor, netted indentations	**HR:** Fom: 0, 1, 2 / Px: 1, 2US **IR:** Gc: 1 / Px: 2 **T:** S
Astound	75	7.5 x 6.7	Small tight cavity with orange flesh	Netted	**HR:** Px: 1 / Px: 2US / Fom: 0, 1, 2 **IR:** Ag / Px: 3.5 **T:** S
Accolade	73	7.5 x 6.7	Small tight cavity with orange flesh	Netted	**HR:** Px: 1 / Px: 2US / Fom: 0, 1, 2 **IR:** Ag / Px: 3.5 **T:** S

Disease abbreviation key

Ag	Cotton aphid caused by *Aphis gossypii*	**Fon**	Fusarium wilt caused by *Fusarium oxysporum* f. sp. *niveum*	**ZYMV**	Zucchini yellow mosaic virus
Co	Anthracnose caused by *Colletotrichum orbiculare*	**Px**	Powdery mildew	**HR**	High resistance
Fom	Fusarium wilt caused by specific races of *Fusarium oxysporum* f. sp. *melonis*	**S**	Sulfur burn caused by the application of some sulfur-based pesticides	**IR**	Intermediate resistance
				T	Tolerance

Pathogen races are indicated to the right of the abbreviation in parentheses [example: Sf (1, 2) = powdery mildew caused by races 1 and 2US of *Sphaerotheca fuliginea*]. In cases where specific races or strains are not noted, the variety is resistant to some, but not necessarily all known races or strains of the pathogen. For comprehensive disease resistance information, please visit **www.SyngentaUS.com/vegetables.**

Cucurbit seed testing for bacterial fruit blotch

Summary:

Syngenta is now using a newer, improved test for bacterial fruit blotch of cucurbit seeds. By integrating this test into the overall Quality Assurance program, clean commercial seeds can be brought to market faster and with greater confidence than in the past. This method, which is an improved PCR test, achieves greater test sensitivity and speed by utilizing DNA-based testing technology similar to that applied in medical and food sciences.

Introduction:

Bacterial fruit blotch (BFB), caused by the bacterium *Acidovorax avenae* subsp. *citrulli*, is a serious disease of cucurbits (watermelons, melons, etc.) that can cause severe economic loss to commercial production in some markets (Hopkins, 1989). The disease was first reported in United States commercial watermelon fields in 1989 (ASTA). Shortly thereafter, testing of seeds became a common commercial practice [National Seed Health System (NSHS)]. Over the past several decades there have been numerous outbreaks of BFB, particularly in the southeastern and midwestern portions of the U.S., with crop damages in the tens of millions ($USD). As a result, this pathogen continues to pose a significant risk to growers, seed companies, and ultimately, everyone associated with the cucurbit industry.

Symptom expressions of the disease include necrotic leaves with water soaked veins, water soaked lesions, and cracking of the fruit with severe infestation leading to penetration of the flesh, and ultimately dissolution of the fruit interior. Symptoms can be observed at the seedling and/or vegetative stage, and prior to fruit harvest (Pictures 1, 2, 3).

In commercial cucurbit production, BFB can be initiated from many different sources including infested plant debris, infected wild cucurbits, and infested seeds (ASTA). Also, the risk from the disease is as great now as it has ever been. To successfully manage this disease, everyone must do their part to prevent its occurrence and spread. The seed industry works to exclude BFB from seed at all stages of production from the greenhouse to the field as well as during harvest. Despite all of these efforts, the final evaluation of the seed health status occurs during seed testing. In order to achieve the highest quality seed, the most sensitive and robust methods for disease detection must be used.

Over the past 30 years there has been a shift from direct seeding of the crop to the use of transplants, often produced in high density and in environments conducive to the development and spread of BFB. The result is that there is an increased potential for explosive spread of the pathogen from seedborne and other inoculum.

A practical strategy for the management of bacterial fruit blotch is to prevent the introduction of the pathogen into the production system. This starts with the use of clean seeds. The key factor to the prevention of seed-associated BFB is utilizing a rigorous seed testing program to prevent infested seeds from entering fields and greenhouses. Using this approach, seed companies can be better assured the seeds they provide to growers are not going to cause epidemics. Constant research will continue to develop new tests and improvements to the existing ones to help growers combat this disease.

Grow out tests in favorable temperature and relative humidity conditions are commonly used to detect seed-associated BFB (Latin & Hopkins, 1995; NSHS). Several different types of grow out tests have been used, and since 2003 a single type of greenhouse grow out, which is approved by the NSHS, has been used by many seed producers. Some improvements have been made in the commercial BFB testing strategy in the last several years including a PCR-based assay, but now an improved PCR test has been developed by Syngenta using new DNA extraction and detection technology. This technology significantly increases the sensitivity for detecting BFB on seeds when compared to conventional grow out methods.

The new BFB test works by using the characteristics of Polymerase Chain Reaction, PCR for short. All organisms have unique pieces of DNA, and PCR detects small fragments of the DNA with a particular sequence. The targeted DNA sequence is unique to the BFB pathogen so all the other DNA in a sample is left alone. During PCR, a protein attaches to the specific pathogen DNA and through an enzymatic process, produces millions of copies of this DNA, which are then easy to detect. If the DNA does not have the specific target sequences, then the PCR will not make more copies.

The new Syngenta BFB test is the result of extensive research into improving the extraction and detection of DNA. Earlier PCR-based testing for BFB often suffered from poor quality DNA and PCR reagents. The new Syngenta BFB test uses improved DNA extraction technology to provide high-quality DNA to improve test robustness. Recent technological developments in PCR reagents have been integrated into the new test to increase its sensitivity and reliability.

Over 800 lots of cucurbits have been tested using the new method and it has an unblemished record for detecting seedborne BFB. While seedling grow out assays have continued to be used in conjunction with the BFB PCR testing, Syngenta is reducing the reliance on grow out assays due to the overwhelming quality of the new BFB PCR testing and the advantages the test offers.

For the new testing, 30,000 seeds from each watermelon and melon seed lot will be evaluated with this highly sensitive test resulting in an even greater assurance that transmissible BFB will not occur in the seeds purchased from Syngenta. Conventional grow out tests will still be used in cases where additional confirmation of seed health is desired. This can result in the testing of up to 90,000 seeds, which would be enough to plant more than 10 acres in the field.

The Syngenta BFB PCR testing

Advantages:

Highly sensitive method:

- Specific – only detects the BFB pathogen
- Consistent – unlike a grow out test, it is not dependent on environmental conditions
- Reliable and repeatable

Rapid:

- Two days versus three to four weeks for conventional grow out testing

Capacity:

- Increase in capacity over conventional grow out testing
- Requires very little space and far less energy than a grow out test

Control:

- Direct oversight of testing in a laboratory environment
- Not based on visual observation of plants, where a symptomatic seedling might be overlooked
- An internal control allows monitoring of test performance and prevents false negative results
- DNA samples can be stored
- Actual samples can be stored
- Results can be stored electronically

Limitations:

- Requires some additional, specialized equipment
- Requires specialized training to become proficient in the technique

The Syngenta PCR-based testing represents improved technology that provides a more rapid, less expensive, and extremely sensitive method for BFB detection from seeds. The benefits include much greater reliability to detect this high-risk pathogen while greatly reducing the test turnaround time. This is another step to enhance the ability of Syngenta to help ensure timely deliveries of high-quality seeds to its global markets.

Syngenta is willing to make this technology available to the seed industry because with a disease as potentially devastating as BFB, it is in the best interest of Syngenta and others in the seed industry to evaluate and select the best testing method(s) for their customers' needs.

Syngenta would like to acknowledge the information and support provided by ASTA in the development of this bulletin.

Sources: ASTA, *Bacteria Fruit Blotch: A Commercial Growers Guide.* June 2009.
Hopkins 1989. *Proc. Cucurbitaceae* 89: 74-75.
Latin & Hopkins. 1995. *Plant Disease* 79: 761-765.
NSHS. 2011. http://www.seedhealth.org/files/pdf/Vegetable_Crops.pdf.

Picture 1. Bacterial fruit blotch spreading among a stand of melon seedlings. *Source: Syngenta*

Picture 2. Foliar symptoms on mature leaves of watermelons in a commercial field in the southeastern United States.
Source: Syngenta

Picture 3. Bacterial fruit blotch symptoms on watermelon fruit.
Source: Syngenta

Watermelon Biology

Offering an industry-leading portfolio of watermelon varieties, growing methods and crop protection products, Syngenta provides its customers with modern agricultural solutions that help drive production of high-quality, nutritious watermelons with strong, diverse market appeal. In order to understand the intricacies of watermelon production, it is important to first know the basics of watermelon biology. This piece provides a top-line overview of key factors affecting watermelon production and marketing.

Seedless vs seeded: Total watermelon acreage in the United States is over 130,000 acres. More than 85 percent of U.S. watermelon production consists of seedless varieties. Florida, Georgia, Texas and California are the leading production states in the U.S.

Planting seed vs transplants: One hundred percent of the seedless acreage is transplanted. Nearly 50 percent of the seeded acreage is transplanted.

Plant populations: Normal plant populations for seedless crops are from 1,800 to 2,200 seedless plants per acre, plus the pollenizer plants.

Pollenizer ratios for seedless: Normal ratios are from 3:1 to 4:1 seedless plants for every pollenizer (also referred to as seeded, diploid or male). Pollenizer plants range from 500 to 700 plants/A.

Bees/pollination: Bees are essential for pollination in a watermelon field. Growers will use at least 2 to 3 hives/A. Bumblebees are now used in some areas as bumblebees can work under colder/windier conditions than honeybees. Sixteen to 24 bee visits per flower are required for seedless watermelon plants to achieve maximum fruit set and development. Seeded watermelon plants only require 8 to 12 bee visits per flower in order to achieve maximum fruit set and development.

Hard seed coats: "My seedless watermelon had seeds. Why?" Chances are these are not seeds, but hard seed coats that are empty and do not contain a seed. Immature white seed coats are commonly found in a seedless watermelon. Under certain stress/environmental conditions, some of these seed coats may become hard and black and look like a seed, but are empty inside. There is no harm in eating these hard seed coats.

Irrigation: As moderate users of water, watermelon plants require ample irrigation during fruit development for uniform, well-developed fruit. Water stress can cause misshapen fruit and poor internal quality. In comparison, potatoes and cabbage are heavy users of water.

Fertilizer: Watermelon plants are moderate to heavy users of fertilizer. Depending on soil test results, a crop will need 100 to 150 lbs/A nitrogen, 50 to 150 lbs/A phosphate and 50 to 150 lbs/A potassium.

Grafting: Watermelon plants can be grafted onto a squash root stock to improve resistance to soil-borne diseases (like Fusarium) and to improve the performance of the plant under stressful conditions. Grafting is done in other parts of the world (Spain, Turkey, China, Mexico) but due to the high cost of grafting, which is a labor intensive process, it is not yet prevalent in the U.S. The USDA has funded a Specialty Crops Grant for grafting, which includes watermelon and other vegetable crops, in order to investigate ways to bring this technology into the U.S. market.

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SEEDLESS STORY

Although the breeding technology for seedless watermelon was developed in the late 1940s, only in the last quarter century have seedless watermelon crops been widely commercially grown. Standard seeded watermelon plants have 2 sets of 11 chromosomes (diploid), while seedless watermelon plants have 3 sets of 11 chromosomes (triploid).

SEEDLESS WATERMELON DEVELOPMENT TIMELINE

1940s
Technology invention, Dr. H. Kihara

1960s
Creation of seedless watermelon, Dr. O. J. Eigsti

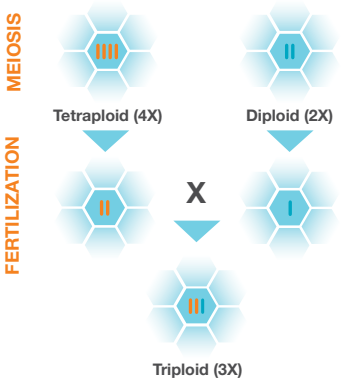
1980s
Development of varieties, including first sales of Tri-X 313 (the "Original Seedless Watermelon") in 1987

1990s
Commercialization and proliferation due to improvements in transplant production (Dr. D. Maynard) and solid matrix seed priming (Dr. J. Eastin)

2000s
Introduction of non-harvestable pollenizer varieties to enhance yield

HOW TO MAKE A SEEDLESS WATERMELON

The chromosome number of a standard diploid (2X) watermelon is doubled using a chemical agent (like colchicine) to produce a tetraploid (4X) watermelon. This step is necessary to the production of triploid (3X) seedless watermelon varieties, which are hybrids developed by crossing tetraploid (4X) and diploid (2X) parent lines.



Because triploid seedless varieties do not contain developing seed, they require pollen to stimulate fruit growth. Triploid plants are essentially sterile and produce little, if any, viable pollen. To ensure fruit set initiation in the seedless crop, a pollenizer is interplanted in rows of triploid seedless variety plants.

BREEDING CONCEPT

SOURCES OF GENETIC VARIATION: related species, wild types, elite material from different parts of the world, etc.

SCREENING FOR TRAITS OF INTEREST: disease resistance screen, stress tolerance screen, trials in multiple environments

CROSSING AND SELECTION


Genetic diversity


Cross pollination


Powdery mildew screen

SEEDLESS WATERMELON TRAITS

GROWER TRAITS

- Marketable yield
- Maturity
- Plant vigor
- Disease resistance
- Field holdability

CONSUMER TRAITS

- Fruit uniformity
- Firmness/texture
- Flesh color/lycopene
- Low hollow heart sensitivity
- Low hard seed coat sensitivity
- Sugar/brix
- Shelf-life

UNDESIRABLE TRAITS


Poor flesh color/uniformity


Hollow heart

DESIRABLE TRAITS


Uniform fruit size


Ideal flesh color/texture for seedless watermelon

EXAMPLE DEVELOPMENT TIMELINE

YEAR 8
Commerical

YEAR 7
Pre-commercial testing

YEAR 6
Advanced hybrid testing

YEAR 5
Test hybrids

YEAR 1-4
Parent development

Major watermelon diseases

Bacterial fruit blotch: Appears as dark, greasy blotches on nearly ripe fruit. Fruits become non-marketable. Can cause serious economic loss.

Gummy stem blight: Starts on the older plant leaves. Leaf spots are dark brown and begin on the edges of the leaves. If severe, it can nearly defoliate a plant. Increasing resistance to several fungicides.

Powdery mildew: Appears during dry spells as yellow or white powdery spots on the leaves. Leaves can yellow quickly. Some resistance to fungicides.

Fusarium: Vascular tissue in the root becomes discolored, which leads to plant collapse. Control by crop rotation, resistant varieties and grafting.

Additional diseases include: Pythium, Anthracnose, downy mildew

Major watermelon insect pests

Aphids: Reproduce rapidly and produce a sticky honeydew-like substance that covers the leaf. Can transmit viral diseases.

Whiteflies: Reproduce quickly in hot weather. General feeding damage. Can transmit viral diseases.

Spider mites: Multiply rapidly during hot weather. Yellowing between the leaf veins, "webbing", develops on the underside of the leaf.

Rindworms: Insect larvae that feed on watermelon rinds are generically referred to as rindworms. Their feeding results in irregular trails over the rind surface.

(Source: Donald N. Maynard. University of Florida, Bradenton)

Disease and insect control:

There is genetic resistance available for Fusarium (now in commercial varieties) and powdery mildew (in some advanced experimental varieties). Watermelon growers utilize IPM (integrated pest management) programs and PCA (pest control advisor) services to monitor and appropriately control diseases and insects. Watermelon growers are careful to not over-apply pesticides because of environmental issues, added cost and pesticide resistance management.

HARVEST INFORMATION

1) **Number of harvests:** On average, a field is harvested 3 times with approximately 5 to 7 days between harvests.
2) **Seedless yield:** Yield will range from 40,000 to 90,000 lbs/A. Growers will average 1.5 to 2.5 harvestable fruits per plant for regular seedless watermelon.
3) **Fruit size:** Size is based on the number of fruit that will fit in a standard bin that weighs 700 lbs. Standard fruit sizes are 36-count (18 to 22 lbs/fruit), 45-count (14 to 17 lbs/fruit) and 60-count (10 to 14 lbs/fruit). Mini seedless are packed in cartons of 6 to 8 fruit/carton and fruit weigh 4 to 6 lbs.
4) **Postharvest handling:** Cooling is preferred, but not required. Most growers move the fruit into the market soon after harvest. Optimum storage temperature for whole fruit is 50 to 59°F. Storage life is typically 14 days at 59°F and up to 21 days at 45 to 50°F. Chilling injury (water-soaked areas on the rind, softening of the flesh) can develop if fruit are stored at less than 45°F.
5) **Ethylene:** Watermelons produce very little ethylene, but are very ethylene sensitive at levels as low as 5 ppm. Do not ship/store watermelon with muskmelons, cantaloupes, honeydews, apples or other "ethylene producers".

ORIGIN

The scientific name for watermelon is *Citrullus lanatus*. Watermelon is a member of the Cucurbitaceae botanical family, which contains more than 800 different species, including watermelon, cucumber, melon, squash and various gourds. The center of origin for watermelon is the drier areas of tropical and subtropical Africa. Although originally domesticated in central and southern Africa, watermelons spread globally via emigration and trade routes. Early European colonists brought watermelon to the Americas and, by 1576, Spanish colonists were growing watermelon in Florida.

MORPHOLOGY

Watermelon roots uptake water and nutrients from the soil to the plant. Watermelon roots tend to be shallow and extensive.

Watermelon plants are typically monoecious, meaning distinct male and female flowers grow on the same plant. Typically, flowers are produced in a ratio of 5 to 7 male flowers for every 1 female flower. The male and female flowers are easily distinguished by the bulbous ovule beneath the petals of a female flower.

Watermelon is the only economically important cucurbit with lobed leaves. Watermelon plants grow as a trailing, highly branched vine.

Watermelon seeds come in a range of colors and sizes. On average, they take 3 to 6 days to germinate. Optimal germination conditions are 85 to 90˚ F and high humidity.

Watermelon fruit are 92 percent water. Red fleshed varieties are a good source of lycopene—averaging between 36 to 78 ug/g. There is significant variation in watermelon appearance (size, shape, skin), flavor (bitter vs. sweet) and flesh characteristics (seeded vs. seedless, flesh colors, flesh textures).

ADAPTATION

Watermelon is a warm season crop. Flowering and fruit development are promoted by intense sunlight and high temperatures. Watermelon crops are grown commercially throughout the world, with Asia being the most important production area (77 percent of the world's watermelon production). Watermelon plants perform best in soil with good drainage, high levels of organic matter and a neutral to slightly acidic pH.

Transplant producer information 2021

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Transplant Producer Information
2021

FLORIDA

Barnett-Partin Plants, Inc.

ADDRESS
1400 C.R. 830A
Felda, FL 33930

Phone: (863) 675-1394
Fax: (863) 675-1441

CONTACTS
Jack Partin: Cell (863) 673-0078
Sue McCormick: Cell (850) 419-7101
Nathan White: Cell (863) 843-5653

FREIGHT TERMS*
All plants delivered in trays unless otherwise requested.

Transplant delivery is the responsibility of the grower.

Growers are responsible for making freight arrangements directly with the greenhouse.

Contact Barnett-Partin Plants for freight and rate quotes.

Mobley Plant World, LLC

ADDRESS
1351 W. Cowboy Way
LaBelle, FL 33935

Phone: (863) 675–2020
Fax: (863) 675–6052

CONTACTS
Thomas Howard: (941) 809-0834
Carol Howard: (863) 675-2020

FREIGHT TERMS*
100 mile radius of Mobley Plant World: $175 freight.

Over 100 miles: $2.00 per mile.

Transplant delivery is the responsibility of the grower.

Growers are responsible for making freight arrangements directly with the greenhouse.

All other orders will be quoted on an individual basis; please call Thomas Howard for a quote.

PLANTS SHIPPED - TYPE
Trays

Boxes

Pull and Pack fees:
$10.00 per 1000 plants (128 and 162)

Quik-Starts Plants, LLC

ADDRESS
901 4th St N.W.
Ruskin, FL 33570

Phone: (813) 645-2528
Fax: (818) 645-8508

CONTACTS
Rosie Guerra
Kenny Lee

FREIGHT TERMS*
100 mile radius of Quik-Starts Plants: $175 freight.

Over 100 miles: $2.25 per mile.

Transplant delivery is the responsibility of the grower.

Growers are responsible for making freight arrangements directly with the greenhouse.

All other orders will be quoted on an individual basis; please call Rosie Guerra for a quote.

PLANTS SHIPPED - TYPE
Pull and Pack fees:
$9.00 per 1,000 plants

FLORIDA cont.

Redi Plants Corporation

ADDRESS

11341 Six L's Farm Rd.
Naples, FL 34114

Phone: (239) 774-6030
Fax: (239) 774-6348

CONTACTS

Bob Poklemba, Manager
USE FIRST: Cell (239) 250-3113

FREIGHT TERMS*

All deliveries $1.45/mile round-trip mileage applicable.

Transplant delivery is the responsibility of the grower.

Growers are responsible for making freight arrangements directly with the greenhouse.

Contact Redi Plants for freight and rate quotes.

PLANTS SHIPPED - TYPE

Trailers hold 728 trays each

Racked boxes hold 189 trays

Racked boxes require forklift for off-loading

Pull and Pack by request only

Plant closure Mon-Fri 3:30 p.m.

Trans-Gro

ADDRESS

3315 State Road 29 South
Immokalee, FL 34142

Phone: (239) 657-6141

CONTACTS

Patrick Naughton: Cell (239) 641-5742
Email: pnaughton@Trans-Gro.com

FREIGHT TERMS*

Mileage calculated on round-trip basis at $2.40 per mile

Transplant delivery is the responsibility of the grower.

Growers are responsible for making freight arrangements directly with the greenhouse.

Contact Trans-Gro for freight and rate quotes.

PLANTS SHIPPED - TYPE

Pull and Pack fees:
$5.00 per box - 350 plants (128)

$25.00 per pallet

GEORGIA

Fowler Plant Company

ADDRESS

7276 GA Highway 133 S
Moultrie, GA 31788

Phone: (229) 324-2630
Fax: (229) 324-2669

CONTACTS

Ashley Fowler: Cell (229) 529-4282
Laura Fowler

FREIGHT TERMS*

Freight $2.90 per loaded mile.

In greenhouse provided rack trailers. Growers are responsible for making shipping arrangements directly with greenhouse.

Contact Ashley Fowler for freight and rate quotes.

PLANTS SHIPPED - TYPE

Pull and Pack by request only at the time of order.

$10.00 per 1000 plants 128 cell

$ 5.00 per 1000 plants 200 cell

Tray deposit of $4.00 per tray required on all spot orders of 20,000 or less. Return trays within 21 days to receive a tray deposit credit.

* Products shipped to You will be shipped Ex Works, shipping point (as defined in Incoterms version 2010), at which time (i) shipped Products will be deemed accepted by You, and (ii) title and risk of loss for the shipped Products will pass to You (excluding any embedded proprietary or patent-protected technology which is offered under license only). Syngenta shall not be responsible for duties, import and export licenses and permits, custom charges and duty fees, taxes, excises, freight, boxes, insurances and other shipping expenses. Shipped products cannot be returned for credit by Syngenta.

GEORGIA cont.

LTF Greenhouses, LLC

ADDRESS

195 Ty Ty Omega Rd.
Tifton, GA 31793

Phone: (229) 382-4454
Fax: (229) 382-8006

CONTACTS

Neal Kicklighter: Cell (229) 821-0381
Taren Driggers: (229) 382-4454, ext 206

FREIGHT TERMS*

Spot order deliveries must be pre-arranged.

125 mile radius of LTF Greenhouses: $250 (min of 100,000 plants). All other freight $3.50 per mile.

Bumper-pulled rack trailers available by advanced scheduling at no charge.

Transplant delivery is the responsibility of the grower.

Growers are responsible for making freight arrangements directly with the greenhouse.

Contact LTF Greenhouses for freight and rate quotes.

PLANTS SHIPPED - TYPE

Plant trays on racked trailers.
Boxed (Pulled and packed or tray in box)

Pull and Pack fees:

$10.00 per 1000 plants (128 and 162)
$5.00 per 1000 plants (242)
$2.00 per box for tray in a box

Tray deposit of $3.00 per tray required on all spot orders of 20,000 or less. Return trays within 21 days to receive a tray deposit credit.

Grower to arrange directly with greenhouse.

Mobley Greenhouse, Inc.

ADDRESS

1265 GA Highway 133 N.
Moultrie, GA 31768

Phone: (229) 985–5544
Office: (800) 345-5783
Fax: (229) 985–0567

CONTACTS

Joey Faison: Cell (229) 873–4759
Kayla Gay: (229) 785-2364

FREIGHT TERMS*

125 mile radius of Mobley Greenhouse: $200 freight

Transplant delivery is the responsibility of the grower.

Growers are responsible for making freight arrangements directly with the greenhouse.

All other orders will be quoted on an individual basis; please call Joey Faison for a quote.

PLANTS SHIPPED - TYPE

Trays
Boxes

Pull and Pack fees:
$10.00 per 1000 plants (128 and 162)
$5.00 per 1000 plants (242)

Valdosta Plant Company, Inc.

ADDRESS

524 Plant Farm Rd.
Adel, GA 31620

Phone: (229) 896-4802
Fax: (229) 896-3020

CONTACTS

Tom Daughtrey, Owner
Ann Daughtrey
Jake Daughtrey

FREIGHT TERMS*

125 mile radius of Valdosta Plant Company: $300.00 (min. of 100,000 plants). All other freight will be $3.50 per mile.

Transplant delivery is the responsibility of the grower.

Growers are responsible for making freight arrangements directly with the greenhouse.

Contact Valdosta Plant Company for freight and rate quotes.

PLANTS SHIPPED - TYPE

Racked Trays

Boxes: Pull and Pack by request only

Pull and Pack fees:
$10.00 per 1000 plants (128)
$5.00 per 1000 plants (242 and 200)

Tray deposit of $3.00 per tray required on all spot order of 20,000 plants or less. Return trays within 21 days to receive a tray deposit credit.

DELMAR

Vincent Farms, Inc.

ADDRESS

12487 Salt Barn Rd
Laurel, DE 19956

Phone: (302) 875-5707
Fax: (302) 875-5723

CONTACTS

Ray Vincent
Haley Keenan
Jen Riehl

FREIGHT TERMS*

Transplant delivery is the responsibility of the grower.

Growers are responsible for making freight arrangements directly with the greenhouse.

Contact Vincent Farms for freight and rate quotes.

PLANTS SHIPPED - TYPE

72 CT disposable trays

98 CT disposable trays

MIDWEST

Cox Farms, Inc.

ADDRESS

7484 W. CR 750 N.
Gaston, IN 47342

Phone: (765) 358–3434
Fax: (765) 358-8386

CONTACTS

Greg Cox: Cell (765) 744-7241

Jenna Cox Scott: Cell (765) 744-4837

Rita Whited: Office (765) 358-3434,
Cell (765) 730-6093

FREIGHT TERMS*

Transplant delivery is the responsibility of the grower.

Growers are responsible for making freight arrangements directly with the greenhouse.

Contact Cox Farms for freight and rate quotes.

Freight and box charges may be invoiced by Cox Farms directly.

PLANTS SHIPPED - TYPE

53' box semi trailer shipping: 2,464 trays per load

Trays: 800 to 1,200 trays per load via Cox Farms trailers

Larger shipments (10 trays or more) in 3 tray boxes at $2.25 per tray boxing fee, palletized and delivered via LTL freight services.

Smaller shipments (10 trays or less) in 2 tray boxes at $2.25 per tray boxing fee, delivered via express ground services. (subject to change).

All plants grown in disposable trays.

Kietzer Farms, Inc.

ADDRESS

67267 90th Ave.
Hartford, MI 49057

Phone: (269) 424–3428
Fax: (269) 424–5387

CONTACTS

Betty Jordan, Accounts Manager
Eric Kietzer
Rock Kietzer

FREIGHT TERMS*

Transplant delivery is the responsibility of the grower.

Growers are responsible for making freight arrangements directly with the greenhouse.

Contact Kietzer Farms for freight and rate quotes.

PLANTS SHIPPED - TYPE

In trays via Kietzer Farms trucks

UPCHARGE

Ends of trays marked white for seeded and SPs: $0.20 per tray

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Transplant Producer Information
2021

CALIFORNIA

Headstart Nursery, Inc.

ADDRESS

4860 Monterey Rd.
Gilroy, CA 95020

Phone: (408) 842–3030
Fax: (408) 847-4365

92–555 Avenue 70
Mecca, CA 92254

Phone: (760) 396–3030
Fax: (760) 396–3031

CONTACTS

Lisa Branco, Sales Manager
lbranco@headstartnursery.com
(831) 214-5252

Melissa Wark, Cust. Service Manager
mwark@headstartnursery.com
(408)425-4269

Doug Iten, General Manager, Desert
diten@headstartnursery.com
(760) 404-8048

Don Lydick, Sales Representative
dlyndick@headstartnursery.com
(760) 902-0016

FREIGHT TERMS*

Please contact your sales representative for freight rates and options.

PLANTS SHIPPED - TYPE

Plants shipped via bins:
Forklift required for bin offloading

Boxing option available for additional charge

UPCHARGE

Organics: add $10.00/ks
Ellepots: add $10.00/ks

KW Transplants

ADDRESS

1903 East 4th Street
Holtville, CA 92250

Phone: (760) 356-9983
Fax: (760) 356-9948

CONTACTS

Sean Foy: Manager
Matt DiCori: U.S. Sales Manager
Sandi Claverie: Customer Service

FREIGHT TERMS*

Please contact your local Keithly-Williams sales rep to place orders.

Contact KW Transplants for freight rates and options.

PLANTS SHIPPED - TYPE

Plants shipped via bins or boxes.

UPCHARGE

Organics: add $11.00/ks

Westside Transplants

ADDRESS

15796 Dorris Rd.
Huron, CA 93234

Phone: (559) 945-7584
Fax: (559) 945-3103

16839 Iona Ave.
Lemoore, CA 93245

Office: (559)924-1506
Fax: (559) 924-1635

CONTACTS

Conner Tollenaar

FREIGHT TERMS*

Freight is included within a 60-mile radius of the subject if taken in bins and in full loads (18 or more bins considered a full load).

For smaller loads, freight is required. Please contact Westside for rates.

Contact Westside Transplants for freight rates and options.

PLANTS SHIPPED - TYPE

Preferably bins, but can also ship in boxes.

For orders under 50,000 plants, additional charges will apply.

UPCHARGE

Organics: add $12.50/ks

ARIZONA

KW Transplants

ADDRESS

6885 W. County 11th St.
Yuma, AZ 85365

Phone: (928) 955-0162

CONTACT

Sean Foy: Manager
Matt DiCori: U.S. Sales Manager
Sandi Claverie: Customer Service

FREIGHT TERMS*

Please contact your local Keithly-Williams sales rep to place orders.

Contact KW Transplants for freight rates and options.

PLANTS SHIPPED - TYPE

Plants shipped via bins or boxes.

UPCHARGE

Organics: add $11.00/ks

TEXAS

Speedling, Inc.

ADDRESS

1.5 Mile South FM 907
Alamo, TX 78516

Phone: (956) 787-1911
Fax: (956) 787-5556

CONTACTS

Erika Limon: Office Manager
Phone: (956) 787-1911

Charlie Rodriguez: Production Manager
Cell: (956) 764-0216

FREIGHT TERMS*

Speedling, Inc. will invoice customer directly.

Contact Speedling, Inc. for freight rates and options.

PLANTS SHIPPED - TYPE

Trays in boxes
$3.00 per unreturned tray, $3.50 per box

Boxes
Plants pulled and packed, $3.50 per box

Tropical Star Vegetable Transplants

ADDRESS

814 N. Border Rd.
Alamo, TX 78516

Phone: (956) 461–5151
Fax: (956) 461–5141

CONTACTS

Bob Huck: Owner
Flor Garcia

FREIGHT TERMS*

Customers are responsible for making freight arrangements.

Contact Tropical Star for freight rates and options.

PLANTS SHIPPED - TYPE

Trays: Returnable
Trays are the property of Tropical Star and are to be returned promptly; any broken or unreturned trays will be billed by Tropical Star at $3.50 per tray.

Boxes: Non-returnable
Pull and Pack add $4.00 per box

* Products shipped to You will be shipped Ex Works, shipping point (as defined in Incoterms version 2010), at which time (i) shipped Products will be deemed accepted by You, and (ii) title and risk of loss for the shipped Products will pass to You (excluding any embedded proprietary or patent-protected technology which is offered under license only). Syngenta shall not be responsible for duties, import and export licenses and permits, custom charges and duty fees, taxes, excises, freight, boxes, insurances and other shipping expenses. Shipped products cannot be returned for credit by Syngenta.

Full Count®
Plant program

Plant Order Form

Fax to: (208) 327-9312

Date	
Order #	

syngenta®

Syngenta Seeds, LLC
600 N Armstrong Pl, Boise, ID 83704
Phone: (208) 322-7272

Contacts:

Julie Kyzer
Phone (208) 327-7263
julie.kyzer@syngenta.com

Raylene Kerschensteiner
Phone (208) 327-9355
raylene.kerschensteiner@syngenta.com

Lorrie Wilder
Phone (208) 327-7234
lorrie.wilder@syngenta.com

Jackie Trowbridge
Phone (208) 327-7296
jackie.trowbridge@syngenta.com

Valerie Mueller
Phone (208) 327-7249
valerie.mueller@syngenta.com

Dealer Company Name	Grower / Customer / Company / Broker Name	
Dealer Sales Rep Name	Billing Address	
Dealer Purchase Order No.	City / State / Zip	
Transplant Producer Name	Phone	E-Mail Contact

Grower Ship to Phone	Ship via
	Packing Preference ☐ Trays ☐ Boxes ☐ Trays / Boxes
	Other instructions:

Line Order	Dealer PO	Quantity of Plants	Variety	*Order Type	Cell Size	Delivery Date	Price/Thousand	Total Price
				Select				
				Select				
				Select				
				Select				
				Select				
				Select				
				Select				

By signing below Grower on behalf of itself and the grower agrees that: (i) **it has read, understands and agrees to the attached Full Count Plant Program Terms and Conditions**; (ii) this order is subject to written acceptance by Syngenta; and (iii) it will prepay Dealer a minimum of 25% of the sub total on the order date.

☐ By making a checkmark, Grower acknowledges that they have read and understand the Terms and Conditions.

Print Name	**Date**
Grower Signature	

Freight delivery charge may apply	
Sub total $	
Freight $	TBD per delivery at time of shipment
Pre-Payment $	
Balance due $ (plus freight if applicable)	

*Order Type Key
Single Plants
SP Bundles @ 3:1
Deuces
Duals
Blended Pollenizers

Available Ratios for Duals & Blended Pollenizers:
50/50 SP/Seeded
75/25 SP/Seeded
25/75 SP/Seeded

Dealer represents that it has provided Grower a copy of the Full Count Plant Program Terms and Conditions.

No plant returns will be accepted.

The acceptance of this order by Syngenta is subject to grower returning the Full Count Plant Program Terms and Conditions properly signed.

Dealer Acknowledgment

Syngenta Confirmation

FULL COUNT PLANT PROGRAM TERMS AND CONDITIONS

NOTICE TO BUYER: These Full Count® Plant Program terms and conditions (this "Agreement") constitutes a legal agreement between you, as the buyer, licensee or user ("You") and Syngenta Seeds, LLC ("Syngenta"). This Agreement shall govern the use, by You, of: (i) Syngenta branded watermelon and cantaloupe plants ("Transplants"); (ii) Syngenta's proprietary processes (including, but not limited to, "Duals" and "Deuces"); and (iii) Syngenta's plant genetics, including without limitation, the fruit, seed, plant tissue, cells, any other derived plant part, whether patented or not (collectively, "Syngenta Technology") for use in the production of watermelon and cantaloupe fruits (collectively, "Products"). **BY SUBMITTING THIS ORDER, INITIALIZING/SIGNING BELOW YOU ACKNOWLEDGE THAT YOU HAVE READ, UNDERSTAND AND AGREE TO BE BOUND BY THE TERMS OF THIS AGREEMENT, THEREFORE YOU ARE ENCOURAGED TO CONSULT AN ATTORNEY BEFORE SUBMITTING THIS ORDER.**

1. Orders.

1.1 You will obtain Transplants by submitting this written order to a Syngenta-authorized dealer ("Dealer"). Notwithstanding Dealer's acceptance of the written order, Syngenta may accept or reject any order in whole or in part, in its sole discretion.

1.2 Any cancellation, increase, or decrease in the quantity and/or changes in the variety of Transplants in this order may alter the volume pricing terms for the entire order and must be received by Dealer and confirmed by Syngenta prior to plants being sown.

2. Price.

You agree that Dealer, at its sole and exclusive discretion, shall establish pricing for the sale of Transplants purchased under this order. You agree to pay Dealer the full balance due on the reverse side regardless of whether You cancel all or any part of the order.

3. Shipment.

Transplants will be shipped EXW (Incoterms 2010) shipping point, at which time (i) shipped Transplants will be deemed accepted by You, and (ii) title and risk of loss for the shipped Transplants will pass to You (excluding any embedded Syngenta Technology). Syngenta shall not be responsible for duties, import and export licenses and permits, custom charges and duty fees, taxes, excises, freight, boxes, insurances and other expenses. Shipped Transplants cannot be returned for credit to Syngenta.

4. Growing Area.

The Transplants ordered under this order shall not be planted in growing areas where economic damage from Acidovorax avenae subsp. citrulli ("bacterial fruit blotch") has occurred. Please refer to Limitations of Warranties and Remedies below.

5. Limitation of Warranties.

You acknowledge and agree that crop yield, purity, and quality are dependent upon many factors beyond the control of Syngenta. Syngenta makes NO WARRANTY for crop yield, purity, or crop quality. All risks of nonperformance, reduced performance, or crop damage due to environmental or other factors beyond Syngenta's control are assumed by You. SYNGENTA DOES NOT WARRANT THAT ANY TRANSPLANTS ARE FREE OF SEED BORNE PATHOGENS, INCLUDING BUT NOT LIMITED TO BACTERIAL FRUIT BLOTCH, AND SYNGENTA SPECIFICALLY DISCLAIMS ANY WARRANTY AS TO ALL TRANSPLANTS' AND PRODUCTS' FREEDOM FROM SUCH DISEASE. YOU EXPRESSLY ASSUME THE RISK THAT SEED BORNE DISEASES MAY OR WILL BE PRESENT IN THE TRANSPLANTS AND/OR PRODUCTS, INCLUDING THE RISK OF SEED BORNE DISEASE BEING PRESENT FOR ANY REASON BY SYNGENTA OR SOME OTHER ENTITY. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT AND ANY WARRANTIES ARISING OUT OF COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR ANY FIDUCIARY OBLIGATION, ALL OF WHICH ARE HEREBY EXPRESSLY DISCLAIMED. TO THE EXTENT PERMITTED BY LAW, ALL PRODUCT SOLD BY SYNGENTA IS SOLD "AS IS".

6. Claims.

Syngenta must have prompt notice of any claim arising from the Transplants or Products so that an immediate inspection of any allegedly affected Transplants or Products can be made. You have 15 days from delivery to report any condition to Syngenta that may lead to a Transplants or Products quality claim. Failure to report such condition within the 15-day period shall mean any claim arising from the condition is barred.

7. Limitation of Liability.

THE EXCLUSIVE REMEDY AND SYNGENTA'S SOLE LIABILITY FOR ANY CLAIM OR LOSS, INCLUDING, WITHOUT LIMITATION, CLAIMS RESULTING FROM BREACH OF WARRANTY, BREACH OF CONTRACT, STRICT LIABILITY OR NEGLIGENCE, SHALL BE LIMITED TO REPAYMENT OF THE AMOUNT OF THE PURCHASE OR LICENSE PRICE OF THE TRANSPLANTS THAT ARE THE SUBJECT OF THE CLAIM. IN NO EVENT SHALL SYNGENTA OR ITS DEALERS BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES.

8. Syngenta Technology License.

In consideration for the payment of fees charged by Syngenta for use of the Syngenta Technology, Syngenta hereby grants You a limited, non- transferable, non-exclusive license, without the right to sublicense, to use the Syngenta Technology solely for producing Products in the upcoming growing season and to be harvested no later than one (1) year from the date of this order.

9. Restrictions.

You shall not: (i) propagate the Transplants; (ii) harvest fruit, seed or plant parts derived from Syngenta's proprietary watermelon pollenizers or other proprietary Syngenta varieties except to produce Products; (iii) sell, transfer or in any way distribute the Syngenta Technology to a third party; (iv) use the Syngenta Technology for plant breeding, research, to produce plants or fruits with non-Syngenta genetics, or for any purpose not specifically provided for herein; (v) disclose, transfer, publish or divulge any data or information about the Syngenta Technology unless expressly authorized to do so in writing by Syngenta; (vi) export or re-export any Transplants; (vii) use a trademark confusingly similar to any trademark or service mark owned or used by Syngenta, including but not limited to, "Full Count®", "Duals", "Deuces" or "Super Pollenizer™"; or (viii) challenge any right of Syngenta in patents or other intellectual property related to Syngenta Technology.

10. Destruction.

At the end of the growing season for which the Transplants were delivered, You agree to destroy all unused Transplants and unsold Products produced using the Syngenta Technology, seeds and plant parts thereof and provide written verification of such destruction to Syngenta upon request.

11. Access and Audits.

You agree Syngenta may access the property, facilities and personnel involved with the Transplants, Products or use of the Syngenta Technology to ensure compliance with this Agreement.

12. Ownership.

You acknowledge and agree that Syngenta shall have exclusive ownership of any Syngenta Technology embedded in the Transplants or used to produce the Products, including without limitation, Syngenta Technology related to watermelon pollenizers, seedless watermelon varieties, other proprietary Syngenta watermelon and cantaloupe varieties as well as proprietary processes, and including any United States or foreign patents or pending applications and any other form of intellectual property relative to any Syngenta Technology. You shall notify Syngenta whenever You have a basis for concluding that Syngenta's property rights in any Syngenta Technology may be infringed.

13. Arbitration.

13.1 Under the laws of several states, arbitration, conciliation or mediation may be required as a prerequisite to maintaining a legal action based upon the failure of the Transplants to produce. A complaint (sworn in some states), along with the required filing fee (where applicable), must be filed with the Department of Agriculture, Seed Commissioner, State Plant Board, or Commissioner of Agriculture within such time to permit an inspection of the Transplants, or crops by the designated agency and the representative from whom the Transplants were purchased. A copy of the complaint must be sent to Syngenta by certified or registered mail or as otherwise provided by individual state law.

13.2 Please consult your state Department of Agriculture for specific requirements as soon as You believe there may be a claim and before any legal action is initiated. Failure to follow this procedure could limit the legal rights You may have or limit the amount of damages that may be recovered. Compliance with all such requirements is Your responsibility.

14. Governing Law.

This Agreement shall be construed under the laws of the State of North Carolina without regard to any conflict of law provisions.

15. Entire Agreement.

This Agreement is the entire agreement between You and Syngenta with regard to the subject matter hereof and supersedes all other agreements, express or implied. Any modifications made by You to this Agreement will have no effect even if the order is accepted by the Dealer or Syngenta.

Grower signature_____

Print name_____

Date_____

Dealer Contract rev. 2020.08.28


syngenta

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Contact Information

Northeast / Midwest

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For comprehensive disease resistance information, please visit www.SyngentaUS.com/vegetables.

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