



**SPECIALTY  
TOMATO**



**SAKATA®**



**MASTER GUIDE**

## DID YOU KNOW?

For the last 60 years, Sakata has been supplying premium tomato hybrids to growers around the world. We are proud to offer a diverse range of specialty tomatoes, including a number of market standards in cherries and grapes. Our breeding efforts focus on marketable yield, disease resistance and a particular emphasis on superior quality and flavor.



**25%**  
of the  
recommended  
daily intake of  
**VITAMIN C**  
in just one serving  
of tomatoes.

### Fruit or Vegetable?

The tomato 'fruit' was reclassified as a 'vegetable' after an 1887 U.S. Tariff Law that began imposing a duty on vegetables, but not on fruits.

**Sweet Hearts™**  
was Sakata's first  
specialty tomato  
introduction in  
North America.

## Umami

The complex flavor profile of the Sakata specialty tomato program is 'umami.' Umami is a **savory taste** and is one of the five basic tastes, together with sweet, sour, bitter and salty.



**22<sup>to</sup> 24**  
pounds of tomatoes  
per person are  
consumed  
annually in the U.S.

## GSPP Certified

In May 2015, Sakata Seed America announced its GSPP certification, or 'Good Seed and Plant Practices'. This authorizes us to store, treat, process, package and distribute GSPP certified tomato seed for the NAFTA market.

## Tomato Mission Statement

Our mission is to provide a full color spectrum of specialty tomato products focused on outstanding flavor for the end consumer; and exceed grower expectations by providing high yields and low labor inputs.

# Specialty Tomato Growth on the Rise

## GROWING TREND

As the snacking tomato segment continues to grow, there is constant evolution in both product and procurement. Consumers are looking for the best tasting varieties, leading to an increase in greenhouse tomato production and lighting experimentation to ensure the best flavor and quality. Another trend we see is an increased demand for local and year-round supply.

 BRITISH COLUMBIA

 ONTARIO/QUEBEC

  
CALIFORNIA/ARIZONA  
/UTAH

  
MID ATLANTIC

  
SOUTHEAST

  
MEXICO



Growing



Steady

## Product Trends



Increased demand for  
**DISEASE  
RESISTANCE**  
in low-tech and  
open fields.



Increased demand for  
**HIGH YIELD**  
plus **PREMIUM  
FLAVOR**  
varieties.



Increased demand for  
**NOVEL  
COLORS &  
SHAPES.**

\*Tomato growth and product trends based on the Sakata tomato team's expertise

# SPECIALTY

## Tomato Uses

Specialty tomatoes are now found everywhere and in everything. These flavorful, convenient, cute and healthy tomatoes are perfect to eat by themselves, use as a garnish on your favorite meals, include in salads or to add a pop of sweet flavor in your cooking. Tomatoes also add lycopene, potassium and Vitamins A and C!



### Fresh

- Salads
- Appetizers
- Garnish
- Topper for pasta
- As a healthy snack!



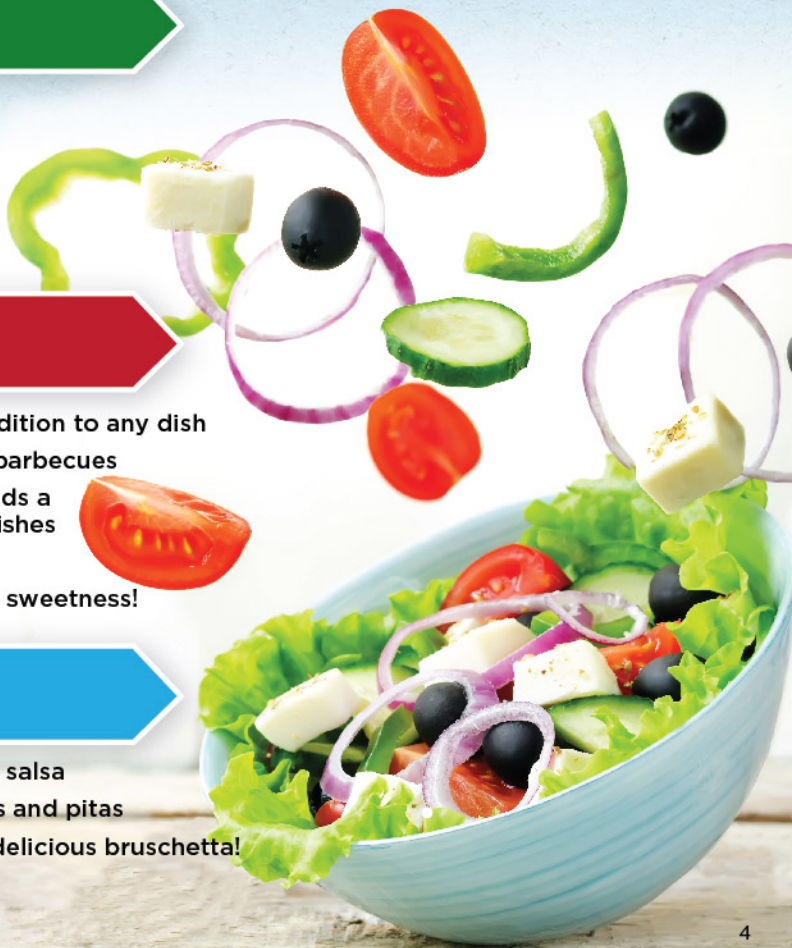
### Cooked

- Delicious bite-sized addition to any dish
- Perfect for kebab and barbecues
- Concentrated flavor adds a kick to pasta or meat dishes
- Easy to prepare
- Cooking brings out the sweetness!



### Diced

- Make a sweet, flavorful salsa
- Great topping for tacos and pitas
- Perfect for a uniquely delicious bruschetta!



# PASSION

Makes Perfect

Varieties that make an impact

Sakata's diverse line of specialty tomatoes includes rounds, grapes and cherries in a variety of sizes and colors, and is a true testament to the dedication, passion and collaboration of the Sakata Corporation. We continue to focus heavily on the specialty tomato program, and are passionate about continuing the tradition of bringing innovative and quality genetics to the North American market and beyond.



## Crimson Star

A red grape full of flavor with excellent juicy crunch, and the full tasting experience! Top-notch product perfect for the premium branded red grape market.

### Key Features:

- High tech
- US/Canada & Mexico
- Premium flavor



## Scarlet Star

A highly productive indeterminate red grape tomato with increased flavor potential. Fruits have excellent crunch and texture with slight acidity and excellent flavor.

### Key Features:

- High tech
- US/Canada & Mexico
- Premium flavor



## Conde

A multi-disease resistant grape with high yield potential, good flavor and strong cracking resistance. Suited for open field, low tech and medium tech production.

### Key Features:

- Low tech
- Mexico
- Multi-disease resistance



## Ruby Crush

Widely adapted, mid-early maturing grape, on mid-compact, determinate plants with good vigor. Setting and size is very good with final yield potential being high.

### Key Features:

- Low tech
- US/Canada & Mexico
- Determinate



## Gold Spark

A great tasting indeterminate yellow grape variety with high yield potential. Fruit size is consistently between 12-14g with great firmness and excellent shelf life.

### Key Features:

- Low tech
- US & Mexico
- Ideal for medley pack

# VARIETIES

A TO E



## AMAI

A highly productive indeterminate grape tomato that offers vigorous plant habit, good leaf cover and maintains fruit size and shape uniformity throughout the production cycle. Fruit are high quality with a rich deep red color and good flavor. Used for indoor and outdoor production.



## BELLINI

An early maturing, unique, large-fruited, orange cocktail tomato with great flavor. The smooth, deep oblate-shaped fruit are firm, and have great texture. The fruit weight is 40-50g. Ideal for home garden, roadside, and specialized retail.



## BRAVEHEART

A very versatile variety that has a more compact growth habit, is very prolific and produces fruit with excellent flavor. Fruit are small and ripen to a brilliant red color, have a shiny appearance and a good shelf life.



## CARMESIN

A semi-determinate plant, with good vigor, high yield potential, and well adapted for open field staking and low-tech protected culture. Fruit are firm, bright red and have good shelf life. It performs well in Sinaloa and Baja with consistent Brix and flavor.

## CHOCOSTAR

Chocostar is an excellent tasting indeterminate brown grape with high yield potential and consistent Brix throughout the season. Consistent fruit size between 10-12g. Chocostar can be used in protected culture environments where GSPP seed is necessary. The plants have very strong vigor with compact habit.

## CONDE

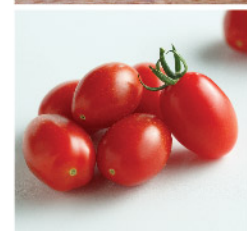
A multi-disease resistance grape with high yield potential, good flavor and is strong against cracking. Suited for open field, low tech, and medium tech production.

## CRIMSON STAR

Crimson Star is full of flavor with excellent juicy crunch– the full tasting experience! Crimson Star's combination of exciting flavor, speedy maturity and excellent yield potential make this a top-notch product perfect for the premium branded red grape market.

## ELLA BELLA

A small-fruited, red cherry variety suited for open field to mid-tech production, home garden and roadside markets. The plant has mid-vigor, has good shelf life with good flavor. Fruit are small and ripen to a bright red with good general disease resistance.



# VARIETIES F to R



## FONZI'S PINKY

A new pink cherry tomato. This variety offers a balanced plant with uniform clusters of fruits ranging in size from 12-15g. Fonzi's Pinky has an excellent flavor profile, as well.

## GOLD SPARK

Gold Spark is a great tasting indeterminate yellow grape variety with high yield potential and consistent brix throughout the season. Consistent fruit size between 12-14g with firm fruit and excellent shelf life. It can be used in outdoor or low-tech environments. Plants display strong vigor with medium height.



## LEMONSTAR

Lemonstar is a new yellow grape with perfectly balanced flavor profile contributing to a pleasant snacking experience. This variety is designed for high-tech environments having GSP seed as standard issue. Average fruit size throughout the season varies between 10-12 grams.



## MISTRAL

A productive variety with smooth, oval shaped fruit of medium to large size. Medium vigor, are very productive and maintain size well through the plant. Mistral has intermediate resistance to TYLCV: Is.



## ROSSINI

A very early maturing, red cocktail tomato with excellent flavor. The smooth deep oblate shaped fruit are firm, have great texture and excellent eating appeal with 40-50g fruit weight. Ideal for home garden, roadside, specialized retail.



## ROZESTAR

Indeterminate pink grape that performs very well in high and mid tech environments. Unique pink color, with a smooth taste that is well balanced between acidity and Brix, high yield potential, firm fruit and uniform shape and size. Plants are well balanced and vigorous.



## ROYALSTAR

An orange cherry with a growing following, Royalstar is easy to grow with flexibility to harvest loose or on-the-vine and good resistance to cracking. An excellent taste completes the package for this exciting new variety.



## RUBY CRUSH

A widely adapted, mid-early maturing grape on mid-compact, determinate plants with good vigor. Setting and size is very good with final yield potential being high. Limited to no pruning for this variety. Deep red fruit that are very smooth, uniform and firm with a good flavor profile.



# VARIETIES

S to Z



## SCARLET STAR

Scarlet Star is a highly productive indeterminate red grape tomato with excellent flavor and high Brix. Fruits have excellent crunch and texture with slight acidity. It is well adapted for high-tech, long cycle production. We recommend grafting with a medium to strong vigor rootstock.



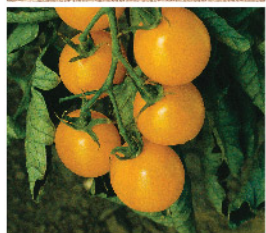
## SWEET CHELSEA

High yielding, sweet and flavorful variety. Strong and productive plants bearing large cherry-sized fruit throughout the season.



## SWEET ELITE

Noted for its fruit setting ability, particularly in cooler conditions where it maintains good size (15-20g) and shape uniformity (larger than standard grape tomatoes currently on the market). Attractive deep red color with good flavor and cracking resistance.



## SWEET GOLD

A very early, indeterminate yellow cherry tomato with good flavor. The plants are high yielding and very vigorous - producing single and double clusters. The fruit are small and weigh around 10-15g, have bright yellow flesh and a very attractive general appearance.

## SWEET HEARTS

This grape tomato has brilliant red color, excellent flavor, shelf life and cracking resistance. An indeterminate plant with good vigor, early yield, and continuous fruit setting ability. Well suited for single fruit harvest and widely adapted for indoor and outdoor production.

## SWEET MILLION

An early maturing, round cherry tomato with an average weight of 10-15g. Sweet Million has cracking tolerance and outstanding balanced flavor. It is easy to grow, has strong vigor and produces high yields of firm fruit. Excellent home garden or roadside variety.

## SWEET TREATS

Unique, large-fruited pink cherry tomato with delicious flavor. The smooth, globe-shaped fruit are approximately 15-20g. The plants are vigorous with high yield potential and very good disease resistance. Ideal for home garden, roadside and specialized retail.



# HIGH TECH/CEA

## Overview of High Tech/ Controlled Environment

High tech, or Controlled Environment Agriculture (CEA) is growing in popularity due to its ability to optimize yield and quality potential for varieties. In a high tech growing environment, you can manipulate light, temperature, humidity, CO<sub>2</sub>, water and other nutrients to achieve the best possible end product. This technique requires high input costs and an increased amount of experienced staff.

- Controlled environment
- Long production cycles
- Primarily GSPP certified seed used
- Grafted for best results
- Hydroponic
- Food safety

Source: Wageningen University, University of Arizona

## HIGH TECH VARIETIES

### Variety Reference Chart



Variety	Type	Color	Size	Characteristics	Disease Resistance
<b>Amai</b>	Ind. Grape	Red	12-15g	Widely adaptive & high yield potential	HR: Ff: A-E / Fol: 1 / ToMV: 0-2 \\ IR: Mi <sup>+</sup> / Ss
<b>Chocostar</b>	Ind. Grape	Brown	10-12g	Very good fruit size and yield potential	HR: Fol: 1 / ToMV: 0-2 \\ IR: Ss
<b>Crimson Star</b>	Ind. Grape	Red	9-12g	Medium plant height with strong vigor	HR: ToMV: 0, 1 / Fol: 1 / Pf (Ff): A-E \\ IR: Mi
<b>Fonzi's Pinky</b>	Ind. Cherry	Pink	12-15g	Very balanced plant & excellent flavor profile	HR: Fol: 2 / Pf (Ff): A-E / ToMV: 0, 1 \\ IR: For / Mi <sup>+</sup> / Ss
<b>Lemonstar</b>	Ind. Grape	Yellow	10-12g	Medium vigor with compact plant height	HR: ToMV: 0-2 / Fol: 0 / Pf: A-E \\ IR: Ss
<b>Royalstar</b>	Ind. Cherry	Orange	12-15g	High performance & excellent quality fruit	HR: Ff: A-E / Fol: 1 / ToMV: 0-2 \\ IR: Mi <sup>+</sup> / Ss
<b>Rozestar</b>	Ind. Grape	Pink	12-15g	High yield potential & well balance, vigorous plants	HR: Fol: 1 / For / Ff: A-E / ToMV: 0, 1 \\ IR: Mi <sup>+</sup>
<b>Scarlet Star</b>	Ind. Grape	Red	10-12g	Medium plant height with strong vigor	HR: ToMV: 0, 1 / For / Pf (Ff): A-E \\ IR: Ss / Mi <sup>+</sup>

# LOW TECH/OPEN FIELD

## Overview of Low Tech/ Open Field Environment

Low tech, open field or shade house environments are the more traditional growing method for specialty tomatoes. Low tech growing requires little input cost or special knowledge and training on technologies, making it an affordable and practical technique. Low tech environments are, however, more susceptible to uncontrolled variables, such as weather, limiting it to seasonal production.

- Most varieties have both high tech and low tech applications
- Soil or hydroponic
- Multiple material house options or open field
- Grafted or non-grafted

Source: Wageningen University, University of Arizona

## OPEN FIELD VARIETIES

### Variety Reference Chart

Variety	Type	Color	Size	Characteristics	Disease Resistance
<b>Amai</b>	Ind. Grape	Red	12-15g	Widely adaptive & high yield potential	HR: Ff: A-E / Fol: 1 / ToMV: 0-2 \\ IR: Mi <sup>+</sup> / Ss
<b>Carmesin</b>	Det. Grape	Red	9-14g	Good plant vigor & yield potential	HR: Fol: 1, 2 / For / ToMV: 0-2 \\ IR: Ss
<b>Conde</b>	Ind. Grape	Red	10-14g	Versatile set & good crack resistance	HR: Fol: 1-3 / For / Ff: A-E / ToMV: 0-2 / Va: 1 / Vd: 1 \\ IR: TSWV / TYLCV: Is
<b>Ella Bella</b>	Ind. Cherry	Red	9-12g	Very prolific plant & good flavor	HR: Ff: A-E / Fol: 1 / ToMV: 0-2 \\ IR: For / Mi <sup>+</sup> / Ss / TYLCV: Is
<b>Gold Spark</b>	Ind. Grape	Yellow	12-14g	Very good fruit size and yield potential	HR: ToMV: 0-2 / Ff: A-E
<b>Mistral</b>	Ind. Grape	Red	12-15g	Excellent fruit set & uniform shape and size	HR: Ff: A-E / Fol: 1, 2 / ToMV: 0-2 \\ IR: Mi <sup>+</sup> / Ss / TYLCV: Is
<b>Ruby Crush</b>	Det. Grape	Red	10-14g	Very labor friendly & export quality	HR: Fol: 1, 2 / For / ToMV: 0-2 \\ IR: Ss
<b>Sweet Elite</b>	Ind. Grape	Red	15-20g	Large fruit & good cracking resistance	HR: Ff: A-E / Fol: 1, 2 / ToMV: 0-2 \\ IR: Ss
<b>Sweet Hearts</b>	Ind. Grape	Red	10-12g	Very versatile & excellent cracking resistance	HR: Ff: A-E / Fol: 1 / ToMV: 0-2 \\ IR: Ss
<b>Sweet Treats</b>	Ind. Cherry	Pink	15-20g	High yield potential & deep pink fruit tone	HR: Ff: A-E / Fol: 1, 2 / ToMV: 0, 1 \\ R: For / Ss

# ORGANIC

## Overview of Organic

Methods that comply with the standards of organic farming vary worldwide; however, organic farming in general features practices that strive to cycle resources, promote ecological balance and conserve biodiversity. Organizations regulating organic products may restrict the use of certain pesticides and fertilizers in farming.

- Typically soil grown and not grafted
- Varieties are offered untreated or treated with T22
- Most varieties have both conventional and organic applications

Source: University of California, Berkeley



## ORGANIC VARIETIES

### Variety Reference Chart



Variety	Type	Color	Size	Characteristics	Disease Resistance
Amai	Ind. Grape	Red	12-15g	Widely adaptive & high yield potential	HR: Ff: A-E / Fol: 1 / ToMV: 0-2 \\ IR: Mi* / Ss
Carmesin	Det. Grape	Red	9-14g	Good plant vigor & yield potential	HR: Fol: 1, 2 / For / ToMV: 0-2 \\ IR: Ss
Conde	Ind. Grape	Red	10-14g	Versatile set & good crack resistance	HR: Fol: 1-3 / For / Ff: A-E / ToMV: 0-2 / Va: 1 / Vd: 1 \\ IR: TSWV / TYLCV: Is
Ella Bella	Ind. Cherry	Red	9-12g	Very prolific plant & good flavor	HR: Ff: A-E / Fol: 1 / ToMV: 0-2 \\ IR: For / Mi* / Ss / TYLCV: Is
Gold Spark	Ind. Grape	Yellow	12-14g	Very good fruit size and yield potential	HR: ToMV: 0-2 / Ff: A-E
Mistral	Ind. Grape	Red	12-15g	Excellent fruit set & uniform shape and size	HR: Ff: A-E / Fol: 1, 2 / ToMV: 0-2 \\ IR: Mi* / Ss / TYLCV: Is
Ruby Crush	Det. Grape	Red	10-14g	Very labor friendly & export quality	HR: Fol: 1, 2 / For / ToMV: 0-2 \\ IR: Ss
Sweet Elite	Ind. Grape	Red	15-20g	Large fruit & good cracking resistance	HR: Ff: A-E / Fol: 1, 2 / ToMV: 0-2 \\ IR: Ss
Sweet Hearts	Ind. Grape	Red	10-12g	Very vesatile & excellent cracking resistance	HR: Ff: A-E / Fol: 1 / ToMV: 0-2 \\ IR: Ss
Sweet Treats	Ind. Cherry	Pink	15-20g	High yield potential & deep pink fruit tone	HR: Ff: A-E / Fol: 1, 2 / ToMV: 0, 1 \\ IR: For / Ss

# HOME GROWN

## Overview of Home Grown/ Local Grower

Sakata Home Grown, a division of Sakata Seed America, focuses on supplying superior genetics for the farmers market, bedding plant and home garden segments. We are fanatical about ensuring our offerings focus on flavor, disease resistance, wide adaptability and early maturity!

Specialty tomatoes for the local market must deliver flavor, color and fruit quality. We offer a wide variety of colors, flavors and shapes for you to choose from.

Each of the varieties are chosen for:

- Fabulous flavor
- Easy growing
- Early maturing
- Ease of harvest
- Crack resistance



RED ROBIN



ROSY FINCH



YELLOW CANARY

## HOME GROWN VARIETIES

### Variety Reference Chart



Variety	Type	Color	Size	Characteristics	Market Use
Bellini	Ind. Cocktail	Orange	40-50g	Widely adapted & easy to grow	Farmers Market, Bedding Plant Grower, Home Garden
Braveheart	Ind. Cherry	Red	10-12g	Compact growth habit & very prolific	Farmers Market, Bedding Plant Grower, Home Garden
Ella Bella	Ind. Cherry	Red	9-12g	Very prolific plant & good flavor	Farmers Market, Bedding Plant Grower, Mail Order
Gold Spark	Ind. Grape	Yellow	12-14g	Very good fruit size and yield potential	Farmers Market, Bedding Plant Grower, Mail Order
Little Birdy	Dwarf Det. Cherry	Various	10-12g	Compact plants suitable for patio pots and baskets	Bedding Plant Grower, Home Garden
Rossini	Ind. Cocktail	Red	40-50g	Widely adapted & easy to grow	Farmers Market, Bedding Plant Grower, Home Garden
Ruby Crush	Det. Grape	Red	10-14g	Rich tasting fruit & cracking resistance	Farmers Market, Bedding Plant Grower, Home Garden
Sweet Gold	Ind. Cherry	Yellow	10-15g	Full flavored & small yellow fruits	Bedding Plant Grower, Home Garden
Sweet Hearts	Ind. Grape	Red	10-12g	Excellent flavor & after-harvest shelf life	Farmers Market, Bedding Plant Grower, Home Garden
Sweet Million	Ind. Cherry	Red	10-15g	Well-established home garden variety & classic flavor	Bedding Plant Grower, Home Garden
Sweet Treats	Ind. Cherry	Pink	15-20g	High yield potential & deep pink fruit tone	Farmers Market, Bedding Plant Grower, Mail Order

# Year Round Availability



Mexico	Florida	California	
●	●	●	Jan
●	●	●	Feb
●	●	●	Mar
●	●	●	Apr
●	●	●	May
●	●	●	Jun
●	●	●	Jul
●	●	●	Aug
●	●	●	Sep
●	●	●	Oct
●	●	●	Nov
●	●	●	Dec

## AVAILABILITY

### Regional Production Chart

Map Location	Region	Sub Region	Environment	Availability
1	Canada	Ontario	High Tech	May to November
2	Canada	British Columbia	High Tech	May to November
3	Mexico	Baja	Low Tech/Open Field	May to December
4	Mexico	Central States	High Tech	July to April
5	Mexico	Jalisco	High Tech	May to December
6	Mexico	Sinaloa	Low Tech/Open Field	December to May
7	Mexico	Sonora	Low Tech/Open Field	December to May
8	Mexico	Torreón (Coahuila)	Low Tech/Open Field	May to December
9	US	Northeast	High Tech	May to November
10	US	Southeast	Low Tech/Open Field	October to June
11	US	Arizona	High Tech	October to September
12	US	California	High Tech	October to September
13	US	California	Low Tech/Open Field	July to September



## Standard Packaging

**Vine Ripes/** • 2 to 3-layer place pack lugs  
**Mature Greens** • 25 lb bulk containers

**Romas** • 25 lb bulk containers

**Greenhouse** • 15 lb single-layer flats

**Grape** • 4 ct 7 oz packages  
 • 4 ct 2.5 lb clamshells  
 • 6 ct 1 lb clamshells  
 • 12 ct 1 pint clamshells  
 • 12 ct 2lb topsealed  
 • 24ct 1 pint clamshells

**Teardrop** • 12 ct 6oz packages



## Chill Injury

**Indications** • Decay  
 • Softening  
 • Loss of flavor  
 • Failure to ripen properly

**Prevention** • Do not store below 50°F, 10°C  
 • Do not allow moisture to accumulate on or in containers during storage  
 • Store containers off the floor  
 • Maintain moderate air circulation  
 • Inspect daily during storage



## Handling & Storage

**Short Term** - Storage for 7 days or less

**Temperature** 60-65°F, 16-18°C

**Relative Humidity** 85-95%

**Mist** No

**Top ice** No

**Storage Tips** - To delay ripening of mature green tomatoes, store at 55-60°F, 13-16°C. Tomatoes are very susceptible to chill injury and should not be stored below 50°F, 10°C. If ripe tomatoes must be placed in a cooler, wrap boxes in thermal blankets and store them near the cooler door to reduce the possibility of chill injury. Keep unripe tomatoes out of direct sunlight.

**Handling Tips** - Tomatoes are delicate and can bruise easily, which may promote spoiling. Handle tomatoes with care; do not drop container on the floor or dump the tomatoes. Store and display tomatoes stem-end up to help preserve quality.



## Nutrition

### Nutrition Facts

**Serving size**  
1 medium tomato (148g)

**Amount per serving**  
**Calories** **35**

% Daily Value\*

<b>Total Fat</b> 5g	<b>1%</b>
Saturated Fat 0g	
Trans Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 5mg	<b>0%</b>
<b>Total Carbohydrate</b> 7g	<b>2%</b>
Dietary Fiber 1g	<b>4%</b>
Total Sugars 4g	
Includes 0g Added Sugars	
<b>Protein</b> 1g	
Vitamin A	20%
Vitamin C	40%
Calcium	2%
Iron	2%

\* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

*These values are based upon the proposal published by FDA in the Federal Register of March 20, 2002. While PMA believes that use of the data should not result in regulatory action, such a result can never be assured. Consultation with Company counsel is suggested before the data is used in conjunction with the marketing of specific products.*

# Key to Resistance Codes

CODE	DISEASE	PATHOGEN
Aal	Alternaria stem canker	<i>Alternaria alternata f.sp. lycopersici</i>
Pst	Bacterial speck	<i>Pseudomonas syringae pv. tomato</i>
For	Fusarium crown & root rot	<i>Fusarium oxysporum f.sp. radicis-lycopersici</i>
Fol	Fusarium wilt	<i>Fusarium oxysporum f.sp. lycopersici</i>
Ss	Gray leaf spot	<i>Stemphylium solani</i>
Ff	Leaf mold	<i>Fulvia fulva</i>
Mi	Root knot	<i>Meloidogyne incognita</i>
ToMV	Tomato mosaic	<i>Tomato mosaic tobamovirus</i>
TSWV	Tomato spotted wilt	<i>Tomato spotted wilt tospovirus</i>
TYLCV: Is	Tomato yellow leaf curl	<i>Tomato yellow leaf curl bigeminivirus (Israel strain)</i>
Vd	Verticillium wilt	<i>Verticillium dahliae</i>

## Resistance Terminology

HR = High resistance: plant varieties that highly restrict the growth and development of the specified pest or pathogen under normal pest or pathogen pressure when compared to susceptible varieties. These plant varieties may, however, exhibit some symptoms or damage under heavy pathogen or pest pressure.

IR = Intermediate resistance: plant varieties that restrict the growth and development of the specified pest or pathogen, but may exhibit a greater range of symptoms or damage compared to “highly resistant” varieties. Intermediately resistant plant varieties will still show less severe symptoms or damage than susceptible plant varieties when grown under similar environmental conditions and/or pathogen or pest pressure.

T = Tolerance: The ability of a plant variety to endure abiotic stress without serious consequences for growth, appearance and yield.

## NOTES

**DISCLAIMER:** This information is based on our observations and/or information from other sources. As crop performance depends on the interaction between the genetic potential of the seed, its physiological characteristics, and the environment, including management, 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 as it contains Sakata Seeds America, Inc. terms and conditions of sale.

**SAKATA®**

**408-778-7758**

vegetables@sakata.com  
sakatavegetables.com