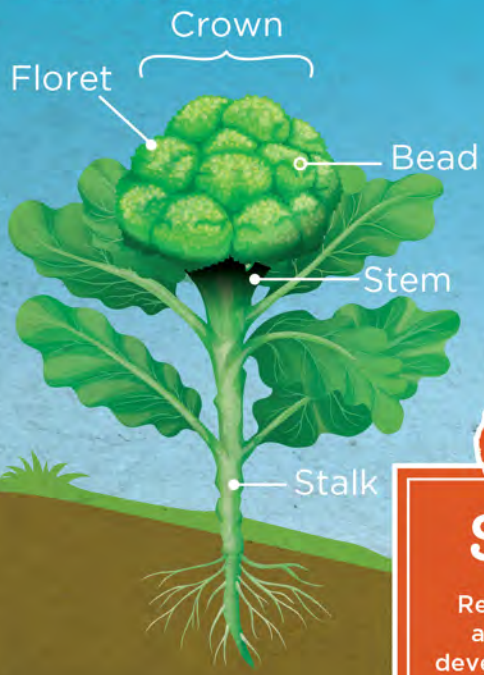
BROCCOLI

SAKATA®

MASTER GUIDE

DID YOU KNOW?

Sakata is the undisputed leader in breeding and producing broccoli seed. Our extensive commitment to research spans more than 50 years, and has resulted in a product that can thrive year-round in variable conditions, more economically, more sustainably, and more efficiently.



70% of the broccoli **consumed** in the USA comes from Sakata.

Green Duke

was Sakata's very first hybrid broccoli variety, introduced in 1972

Consumption has grown from 1.4 lbs. per person to nearly **7 pounds per person** since 1980!

SEED LEADER

Research stations across the U.S. develop varieties for **every region**

Nutrient Powerhouse

Broccoli is a great source of fiber, vitamin A and potassium

100% of our daily requirement for **vitamins C and K.**

A Green Spectrum

Broccoli comes in a variety of colors,ranging from deep sage to dark green and even blueish/green

Broccoli is a great cold weather crop, which allows for **year-round** availability

Broccoli Growth on the Rise

GROWING TREND

At Sakata, we develop broccoli varieties that can thrive in virtually every region and across variable climates. Our hybrids are developed to meet growers' specific needs with varieties that offer high heat tolerance and strong post-harvest color retention.

Product Trends

Increased demand for **heat tolerant** varieties

Increased **disease resistance** requirements

Increased demand for improved shelf life for **iceless shipping**

*Broccoli growth and product trends information taken from 2012-2017

BROCCOLI

The Versatile Vegetable

When it comes to broccoli, the possibilities are endless! Thanks to professional and at-home chefs, we have discovered new and exciting ways to enjoy broccoli from crown to stalk.

Floret

- Roast florets in the oven with savory spices
- Toss florets with raisins and dressing for a delicious, nutritious salad
- Stir fry florets with chicken and other vegetables
- Add them to pasta for a healthier dinner

Stalk

- Slice stalks into thin discs and throw them in a frittata
- Cut stalks and boil with other vegetables for vegetable soup stock
- Shred stalks into a salad or coleslaw, finely dice for broccoli rice
- Use them like carrots or peppers

Leaf

- Add to smoothies or juices for added nutrition
- Roast with oil, salt, and pepper to make healthier chips
- Toss into a salad as a hearty replacement for kale
- Chop and add to your favorite soup or bisque recipe

A NEW era of trusted GENETICS

Varieties that make an impact

Sakata varieties have been bred to address the unique challenges faced by broccoli growers like fluctuating temperatures, harsh winters and tough conditions year-round. That's why Sakata's most recent varieties are already proving themselves as trusty performers.

Dynasty

Dynasty is a mid-late maturing broccoli variety with smaller, lower leaf attachments to aid with ease of harvests. Dynasty has a medium plant size with smooth, well dome-shaped, medium green heads, and is anthocyanin-free (will not purple).

Perfect for:

- Bunch & Crown
- Short trim

Eastern Crown

An outstanding variety for the East Coast, Eastern Crown features excellent heat tolerance and performance during long days. Try in the warm season in California, Arizona and Texas!

Perfect for:

- Crown cut
- Short trim

Kingdom

Early variety that is multi-use. It has good crown quality for an early-class variety and has shown excellent performance in the Northeast and mid-Atlantic states in summer/fall harvest slots as well as early winter harvesting in the Desert Southwest.

Perfect for:

- Crown cut
- Multi-use

Fortress

High head position variety with multi-use capabilities. Easy trim, anthocyanin-free (will not purple) and has pit rot resistance (IR).

Perfect for:

- Multi-use
- Crown cut/ bunch

Empire

Empire produces a high domed, smooth head with small beads and multi-use capability and great weight with excellent color. It is primarily for the crown cut/short trim markets. It shows very strong blind plant tolerance.

Perfect for:

- Crown cut
- Short trim

VARIETIES A TO E

AVENGER

An excellent choice for the crown cut and processing markets, this variety has wide adaptability, performing well in the U.S., Mexico and Guatemala.

CENTENNIAL

This exciting heavy-headed, multi-use addition to Sakata's vast broccoli product line has minimal sideshoots, performs well in all Marathon slots, and can be grown year-round in cool coastal regions.

DESTINY

This mid-early maturity class variety performs well for fall harvest in the Desert Southwest, with good holding ability. Dwarf plants produce broccoli with a smooth dome and round shape.

DIAMANTE

Diamante is an excellent choice for crown and processing markets. This variety prefers warm to warm and warm to cool growing conditions and has shown very strong post-harvest color retention.

DIPLOMAT

Performs well in the Northeast, Canada and the Pacific Northwest, during long days and in moderate heat conditions, with good uniformity.

DYNASTY

Dynasty is a mid-late maturing broccoli variety with smaller, lower leaf attachments to aid with ease of harvest. Dynasty has a medium plant size with smooth, well dome-shaped, medium green heads, and is anthocyanin free.

EASTERN CROWN

An outstanding variety for the East Coast, Eastern Crown features excellent heat tolerance and performance during long days. Perfect for the crown cut / short trim market.

EASTERN MAGIC

A multi-use variety that delivers excellent performance in the Northeastern U.S. and Canada during long days and moderate heat.

EMERALD CROWN

A medium-maturing, very uniform, heavy-headed variety with small beads on a small-framed plant. Growing season is warm to cool (not for rainy season), but can extend the Green Magic slot into cold due to its resistance to purpling–Anthocyanin free. Produces excellent quality in all NAFTA regions.

VARIETIES E TO G

EMERALD JEWEL

This clean stemmed, multi-use variety is especially suited for crown cut. It performs best in transition periods and has intermediate resistance to some races of clubroot.

EMERALD STAR

A very tight-headed, small-beaded variety with nice uniformity. Trimming is relatively easy due to small leaf attachments. Performs best in cool to warm and warm to cool seasons.

EMPIRE

Empire produces a high-domed, smooth head with great weight and excellent color. It is primarily for the crown cut/short trim markets. It shows very strong blind plant tolerance.

ENDURANCE

This high-yielding crown and processing hybrid is an exciting addition to the Sakata product line, with good plant to plant uniformity and reduced sideshoots that can lead to a more uniform and predictable harvest.

EXPO

This late maturing variety features strong blind plant tolerance and performs well in warm to cool conditions with a tight, heavy dome, short bracts and small, uniform, green beads.

FORTRESS

High head position with multi-use capabilities. Easy trim, anthocyanin-free (will not purple) with pin rot (IR).

GREEN GOLD

This mid-late maturing variety has excellent shape and uniformity, making it a premium choice for crown cut and short trim markets. Should not be used during rainy seasons.

GREEN MAGIC

An industry standard summer to fall, mid-early maturity class variety, Green Magic has a wide regional adaptability and offers very good uniformity of harvest and a good plant habit.

VARIETIES G TO Z

GODZILLA

This multi-use broccoli forms very heavy, small-beaded heads in combination with a mid-high head position. Leaf attachments are small and lower on the stem, allowing for quick trimming and easier harvest.

GYPSY

This medium-green hybrid yields excellent overall uniformity, performs well under moderately warm conditions, produces a very strong root system and features intermediate resistance to downy mildew.

IMPERIAL

Performs best during long days under moderate heat and is mid to mid-late maturing under these conditions. Features a tight dome with nice, small, dark green beads and excellent post-harvest shelf life.

KINGDOM

Early variety that is multi-use. It has good crown quality for an early-class variety and has shown excellent performance in the Northeast and mid-Atlantic states in summer/fall harvest slots as well as early winter harvesting in the Desert Southwest.

MARATHON

An industry standard in broccoli, this widely adaptable variety offers consistent yields and excellent results across diverse regions ranging from California to Arizona, Mexico and Central America.

MARATHON ELITE

As an industry standard in broccoli, Marathon Elite is widely adaptable. From California to Arizona to Mexico and Central America, this variety has yielded outstanding results for fresh-market bunching, processing and the increasingly popular crown cut market.

MAVERICK

This multi-purpose variety is noted for its vigorous plant, tight dome and small uniform beads. Features mid- late maturity, and performs well in warm to cool conditions in coastal California and the Central Valley.

MILLENNIUM

With a round shape, excellent heat tolerance and performance during long daylight hours and fewer side shoots, this variety is also anthocyanin-free (will not purple) and has shown strong post-harvest color retention.

PATRON

Well suited for the summer to fall harvest period in Coastal California, this multi use, dark blue-green variety is tolerant to hollow core and brown bead, and offers excellent post-harvest color retention.

SALINAS VALLEY

AVENGER
- High percentage of crown cut
- Excellent holding ability
- Good for processing

CENTENNIAL
- Heavy-headed and small-beaded
- Multi-use in many regions
- Can be grown year round in cool coastal regions
- Blind plant tolerance

DIAMANTE
- Excellent for crown cut and processing
- Terrific blue-green color
- Exceptional post-harvest color retention

EMERALD CROWN
- Produces excellent quality crown cuts/short trim in all NAFTA regions
- Highly resistant to purpling
- Anthocyanin-free (will not purple)

EMPIRE
- Crown cut/short trim type
- Overwinter and fall harvest slots in Coastal California
- Blind plant tolerant

ENDURANCE
- For crown cut and short trim
- Reduced side shoots
- Good plant uniformity
- Blind plant tolerance

EXPO
- For crown cut and short trim
- Small, uniform green beads
- Performs well in warm to cool conditions and overwinter

FORTRESS
- Multi-use
- High head position
- Anthocyanin-free (will not purple)
- Pin rot (IR)

GODZILLA
- Multi-use variety
- Mid-high head position for easier harvest

GREEN MAGIC
- Multi-use variety
- Widely adaptable

IMPERIAL
- Performs well in long day length and moderate heat
- Good for crown cut and processing

MARATHON
- Uniform and sizes well in cold, overwinter production
- Multi-use variety

MARATHON ELITE
- Uniform
- Good for cool season production
- Multi-use variety

MILLENNIUM
- Excellent for crown cut and short trim
- High domed, small-beaded
- Anthocyanin-free (will not purple)

PATRON
- Good for summer to fall harvest
- Tolerant to brown bead and hollow core
- Multi-use variety

SALINAS VALLEY

Regional Reference Chart

Product Usage: (B) = Bunching, (C) = Crown Cut (F) = Florets, (P) = Processing/Freezing

Variety	Relative Maturity	Product Usage	Head Color	Head Characteristics	Harvest Period
Avenger	Mid-late	C, F, P	Blue-Green	Domed, dense	Aug - Mid-Nov/Apr - June
Centennial	Mid-late	B, C, F	Med-Green	Medium dome	November - May
Diamante	Mid-late/late	C, F, P	Blue-Green	Domed, dense	August - November
Emerald Crown	Mid	C	Blue-Green	Semi-dome, large, dense	August - December
Empire	Mid-late	C	Blue-Green	High, Domed	March - May, Oct - Dec
Endurance	Mid-late	C, P	Med-Green	Domed, dense	November - Early May
Expo	Mid-late	C, P	Med-Green	Semi-dome, large, dense	November - Early May
Fortress	Mid-late	B, C,	Med-Green	Semi-dome, med, dense	May - June, Oct - Nov
Godzilla	Mid-late	B, C, F, P	Dark green	Large/dense w/semi-dome	March - June, Oct - Nov
Green Magic	Mid	B, C, F	Blue-Green	Semi-dome, large, dense	September - November
Imperial	Mid-late/late	B, C, F, P	Blue-Green	Domed, round	August - November
Marathon	Mid-late	B, C, F, P	Blue-Green	High, dense dome	October - May
Marathon Elite	Mid-late	B, C, F, P	Blue-Green	High, dense dome	October - May
Millennium	Late	C, F, P	Blue-Green	High dome, round, large	August - November
Patron	Mid	B, C, F	Dark Blue-Green	Medium dome	July - Mid-October

SANTA MARIA

AVENGER
- High percentage of crown cut
- Excellent holding ability
- Good for processing

CENTENNIAL
- Heavy-headed and small-beaded
- Multi-use in many regions
- Can be grown year-round in cool coastal regions
- Blind plant tolerance

DIAMANTE
- Excellent for crown cut and processing
- Terrific blue-green color
- Exceptional post-harvest color retention

EMPIRE
- Crown cut/short trim type
- Overwinter and fall harvest slots in Coastal California
- Blind plant tolerant

ENDURANCE
- For crown cut and short trim
- Reduced side shoots
- Good plant uniformity
- Blind plant tolerance

EXPO
- For crown cut and short trim
- Small, uniform green beads
- Performs well in warm to cool conditions and overwinter

FORTRESS
- Multi-use
- High head position
- Anthocyanin-free (will not purple)
- Pin rot (IR)

GODZILLA
- Multi-use variety
- Mid-high head position for easier harvest

GREEN MAGIC
- Multi-use variety
- Widely adaptable

GYPSY
- Good choice for organic production

IMPERIAL
- Performs well in long day length and moderate heat
- Good for crown cut and processing

MARATHON
- Uniform and sizes well in cold, overwinter production
- Multi-use variety

MARATHON ELITE
- Uniform
- Good for cool season production
- Multi-use variety

MAVERICK
- Multi-use variety
- Vigorous plant

MILLENNIUM
- Excellent for crown cut and short trim
- High domed, small-beaded
- Anthocyanin-free (will not purple)

PATRON
- Good for summer to fall harvest
- Tolerant to brown bead and hollow core
- Multi-use variety

SANTA MARIA

Regional Reference Chart

Product Usage: (B) = Bunching, (C) = Crown Cut (F) = Florets, (P) = Processing/Freezing

Variety	Relative Maturity	Product Usage	Head Color	Head Characteristics	Harvest Period
Avenger	Mid-late	C, F, P	Blue-Green	Domed, dense	September - April
Centennial	Mid-late	B, C, F	Med-Green	Medium dome	October - April
Diamante	Mid-late/late	C, F, P	Blue-Green	Domed, dense	August - November
Empire	Mid-late	C	Blue-Green	High, Domed	March - May, Oct - Dec
Endurance	Mid-late	C, P	Med-Green	Domed, dense	October - May
Expo	Mid-late	C, P	Med-Green	Semi-dome, large, dense	October - May
Fortress	Mid-late	B, C	Med-Green	Semi-dome, med, dense	May - June, Oct - Nov
Godzilla	Mid-late	B, C, F, P	Dark green	Large/dense w/semi-dome	March - June, Oct - Nov
Green Magic	Late	B, C, F	Blue-Green	Semi-dome, large, dense	July - Mid-November
Gypsy	Late	B, C	Med-Green	Smooth dome	July - October
Imperial	Mid-late/late	B, C, F, P	Blue-Green	Domed, round	July - November
Marathon	Mid-late	B, C, F, P	Blue-Green	High dome, dense	October - May
Marathon Elite	Mid-late	B, C, F, P	Blue-Green	High dome, dense	October - May
Maverick	Mid-late	B, C, F	Med-Green	Dense dome	April - June/Oct - Nov
Millenium	Late	C, F, P	Blue-Green	High dome, round, large	August - November
Patron	Mid	B, C, F	Dark Blue-Green	Medium dome	July - October

SAN JOAQUIN VALLEY

AVENGER
- High percentage of crown cut
- Excellent holding ability
- Good for processing

CENTENNIAL
- Heavy-headed and small-beaded
- Multi-use variety
- Blind plant tolerance

DIAMANTE
- Excellent for crown cut and processing
- Terrific blue-green color
- Exceptional post-harvest color retention

DYNASTY
- Harvest uniformity
- Head quality
- Anthocyanin free

ENDURANCE
- For crown cut and short trim
- Reduced side shoots
- Good plant uniformity
- Blind plant tolerance

EXPO
- For crown cut and short trim
- Small, uniform green beads
- Performs well in warm to cool conditions and overwinter

FORTRESS
- Multi-use
- High head position
- Anthocyanin-free (will not purple)
- Pin rot (IR)

GODZILLA
- Multi-use variety
- Mid-high head position for easier harvest

GREEN MAGIC
- Multi-use variety
- Widely adaptable

IMPERIAL
- Performs well in long day length and moderate heat
- Good for crown cut and processing

KINGDOM
- Early maturity with nice dome shape
- Good crown quality for early-type
- Fresh market

MARATHON
- Uniform and sizes well in cold, overwinter production
- Multi-use variety

MARATHON ELITE
- Uniform
- Good for cool season production
- Multi-use variety

MAVERICK
- Multi-use variety
- Vigorous plant

MILLENNIUM
- Excellent for crown cut and short trim
- High domed, small-beaded
- Anthocyanin-free (will not purple)

SAN JOAQUIN VALLEY

Regional Reference Chart

Product Usage: (B) = Bunching, (C) = Crown Cut (F) = Florets, (P) = Processing/Freezing

Variety	Relative Maturity	Product Usage	Head Color	Head Characteristics	Harvest Period
Avenger	Mid-late	C, F, P	Blue-Green	Domed, dense	October - March
Centennial	Mid-late	B, C, F	Med-Green	Medium dome	December - March
Diamante	Mid-late/late	C, F, P	Blue-Green	Domed, dense	October - March
Dynasty	Mid-late	B, C	Med-Green	Medium, domed	November - January
Endurance	Mid-late	C, P	Med-Green	Domed, dense	December - March
Expo	Mid-late	C, P	Med-Green	Semi-dome, large, dense	December - March
Fortress	Mid-late	B, C	Med-Green	Semi-dome, med, dense	May - June, Oct - Nov
Godzilla	Mid-late	B, C, F, P	Dark green	Large/dense w/semi-dome	October - March
Green Magic	Mid	B, C, F	Blue-Green	Semi-dome, large, dense	October - December
Imperial	Mid-late/late	B, C, F, P	Blue-Green	Domed, round	October - December
Kingdom	Early	B, C, F, P	Blue-Green	Domed, round	October - November
Marathon	Mid-late	B, C, F, P	Blue-Green	High dome, dense	October - March
Marathon Elite	Mid-late	B, C, F, P	Blue-Green	High dome, dense	October - March
Maverick	Mid-late	B, C, F	Med-Green	Dense dome	April - June
Millennium	Late	C, F, P	Blue-Green	High dome, round, large	October - March

YUMA & Imperial Valley

AVENGER
- High percentage of crown cut
- Excellent holding ability
- Good for processing

CENTENNIAL
- Heavy-headed and small-beaded
- Multi-use variety
- Blind plant tolerance

DESTINY
- Good head quality
- Heat tolerant

DIAMANTE
- Excellent for crown cut and processing
- Terrific blue-green color
- Exceptional post-harvest color retention

DYNASTY
- Harvest uniformity
- Head quality
- Anthocyanin free

EASTERN CROWN
- Performs well in long day length and moderate heat
- For crown cut and short trim

EMERALD CROWN
- Produces excellent quality crown cuts/short trim in all NAFTA regions
- Highly resistant to purpling
- Anthocyanin-free (will not purple)

EMERALD JEWEL
- Multi-use variety
- Suggest late spring/early summer and late fall harvests
- Intermediate resistance to some races of clubroot

EMERALD STAR
- Crown cut/short trim type
- Small-beaded, round shape
- Very firm heads

EMPIRE
- Crown cut/short trim type
- Overwinter and fall harvest slots in Coastal California
- Blind plant tolerant

ENDURANCE
- For crown cut and short trim
- Reduced side shoots
- Good plant uniformity
- Blind plant tolerance

FORTRESS
- Multi-use
- High head position
- Anthocyanin-free (will not purple)
- Pin rot (IR)

GODZILLA
- Multi-use variety
- Mid-high head position for easier harvest

GREEN GOLD
- Excellent harvest uniformity

GREEN MAGIC
- Multi-use variety
- Widely adaptable

IMPERIAL
- Performs well in long day length and moderate heat
- Good for crown cut and processing

KINGDOM
- Early maturity with nice dome shape
- Good crown quality for early-type
- Fresh market

MARATHON
- Uniform and sizes well in cold, overwinter production
- Multi-use variety

MARATHON ELITE
- Uniform
- Good for cool season production
- Multi-use variety

MILLENNIUM
- Excellent for crown cut and short trim
- High domed, small-beaded
- Anthocyanin-free (will not purple)

YUMA & Imperial Valley

Regional Reference Chart
Product Usage: (B) = Bunching, (C) = Crown Cut (F) = Florets, (P) = Processing/Freezing

Variety	Relative Maturity	Product Usage	Head Color	Head Characteristics	Harvest Period
Avenger	Mid-late	C, F, P	Blue-Green	Domed, dense	Mid-February - March
Centennial	Mid-late	B, C, F	Med-Green	Medium dome	Mid-February - Late March
Destiny	Mid	C	Blue-Green	Domed, round, smooth	Late November - Late Dec
Diamante	Mid-late/late	C, F, P	Blue-Green	Domed, dense	January - February
Dynasty	Mid-late	B, C	Med-Green	Medium, domed	Mid-December - February
Eastern Crown	Mid	C	Blue-Green	Domed	February - March
Emerald Crown	Mid	C	Blue-Green	Semi-dome, large, dense	Mid-December - January
Emerald Jewel	Late	B, C, F	Med-Green	Large/dense w/high dome	Mid-February - March
Emerald Star	Late	C	Med-Green	Domed, round, dense	February - March
Empire	Mid-late	C	Blue-Green	Domed, round, dense	Mid-January - March
Endurance	Mid-late	C, P	Med-Green	Domed, dense	January - February
Fortress	Mid-late	B, C	Med-Green	Semi-dome, med, dense	May - June, Oct - Nov
Godzilla	Mid-late	B, C, F, P	Dark green	Large/dense w/semi-dome	Mid-February - Mid-March
Green Gold	Mid-late	B, C, F	Med-Green	Domed, round, smooth	Mid-December - February
Green Magic	Mid	B, C, F	Blue-Green	Semi-dome, large, dense	Mid-December - Mid-Jan
Imperial	Mid-late/late	B, C, F, P	Blue-Green	Domed, round	Mid-November - Dec
Kingdom	Early	B, C, F, P	Blue-Green	Domed, round	December - Early January
Marathon	Mid-late	B, C, F, P	Blue-Green	High dome, dense	Mid-February - Late March
Marathon Elite	Mid-late	B, C, F, P	Blue-Green	High dome, dense	Mid-February - Late March
Millennium	Late	C, F, P	Blue-Green	High dome, round, large	January - February

PACIFIC NORTHWEST

CENTENNIAL
- Heavy-headed and small-beaded
- Multi-use variety
- Blind plant tolerance

DIPLOMAT
- Performs well in long day length and moderate heat conditions

DYNASTY
- Harvest uniformity
- Head quality
- Anthocyanin free

EMERALD CROWN
- Produces excellent quality crown cuts/short trim in all NAFTA regions
- Highly resistant to purpling
- Anthocyanin-free (will not purple)

EMERALD JEWEL
- Multi-use variety
- Suggest late spring/early summer and late fall harvests
- Intermediate resistance to some races of clubroot

ENDURANCE
- For crown cut and short trim
- Reduced side shoots
- Good plant uniformity
- Blind plant tolerance

EXPO
- For crown cut and short trim
- Small, uniform green beads
- Performs well in warm to cool conditions and overwinter

FORTRESS
- Multi-use
- High head position
- Anthocyanin-free (will not purple)
- Pin rot (IR)

GODZILLA
- Multi-use variety
- Mid-high head position for easier harvest

GREEN MAGIC
- Multi-use variety
- Widely adaptable

GYPSY
- Good choice for organic production

IMPERIAL
- Performs well in long day length and moderate heat
- Good for crown cut and processing

KINGDOM
- Early maturity with nice dome shape
- Good crown quality for early-type
- Fresh market

MARATHON
- Uniform and sizes well in cold, overwinter production
- Multi-use variety

MARATHON ELITE
- Uniform
- Good for cool season production
- Multi-use variety

PACIFIC NORTHWEST

Regional Reference Chart

Product Usage: (B) = Bunching, (C) = Crown Cut (F) = Florets, (P) = Processing/Freezing

Variety	Relative Maturity	Product Usage	Head Color	Head Characteristics	Harvest Period
Centennial	Mid-late	B, C, F	Med-Green	Medium dome	October-November
Diplomat	Mid-late	B, C, F	Blue-Green	Semi-dome, large, dense	September - November
Dynasty	Mid-late	B, C	Med-Green	Medium, domed	November - January
Emerald Crown	Mid	C	Blue-Green	Semi-dome, large, dense	August - November
Emerald Jewel	Late	B, C, F	Med-Green	Large/dense w/high dome	September - November
Endurance	Mid-late	C, P	Med-Green	Domed, dense	October - November
Expo	Mid-late	C, P	Med-Green	Semi-dome, large, dense	October - November
Fortress	Mid-late	B, C	Med-Green	Semi-dome, med, dense	May - June, Oct - Nov
Godzilla	Mid-late	B, C, F, P	Dark green	Large/dense w/semi-dome	Mid-September - October
Green Magic	Mid	B, C, F	Blue-Green	Semi-dome, large, dense	September - November
Gypsy	Mid	B, C	Med-Green	Smooth dome	September - November
Imperial	Mid-late/late	B, C, F, P	Blue-Green	Domed, round	August - November
Kingdom	Early	B, C, F, P	Blue-Green	Semi-dome, large, dense	August - September
Marathon	Mid-late	B, C, F, P	Blue-Green	High dome, dense	October - November
Marathon Elite	Mid-late	B, C, F, P	Blue-Green	High dome, dense	October - November

NORTHEAST & Midwest

CENTENNIAL
- Heavy-headed and small-beaded
- Multi-use variety
- Blind plant tolerance

DIPLOMAT
- Performs well in long day length and moderate heat conditions

DYNASTY
- Harvest uniformity
- Head quality
- Anthocyanin free

EASTERN CROWN
- Performs well in long day length and moderate heat
- For crown cut and short trim

EASTERN MAGIC
- Performs well in long day length and moderate heat
- Excellent blue-green color

EMERALD CROWN
- Produces excellent quality crown cuts/short trim in all NAFTA regions
- Highly resistant to purpling
- Anthocyanin-free (will not purple)

EMPIRE
- Crown cut/short trim type
- Overwinter and fall harvest slots in Coastal California
- Blind plant tolerant

ENDURANCE
- For crown cut and short trim
- Reduced side shoots
- Good plant uniformity
- Blind plant tolerance

EXPO
- For crown cut and short trim
- Small, uniform green beads
- Performs well in warm to cool conditions and overwinter

FORTRESS
- Multi-use
- High head position
- Anthocyanin-free (will not purple)
- Pin rot (IR)

GODZILLA
- Multi-use variety
- Mid-high head position for easier harvest

GYPSY
- Good choice for organic production

GREEN MAGIC
- Multi-use variety
- Widely adaptable

IMPERIAL
- Performs well in long day length and moderate heat
- Good for crown cut and processing

KINGDOM
- Early maturity with nice dome shape
- Good crown quality for early-type
- Fresh market

MARATHON
- Uniform and sizes well in cold, overwinter production
- Multi-use variety

MARATHON ELITE
- Uniform
- Good for cool season production
- Multi-use variety

MILLENNIUM
- Excellent for crown cut and short trim
- High domed, small-beaded
- Anthocyanin-free (will not purple)

NORTHEAST & Midwest

Regional Reference Chart

Product Usage: (B) = Bunching, (C) = Crown Cut (F) = Florets, (P) = Processing/Freezing

Variety	Relative Maturity	Product Usage	Head Color	Head Characteristics	Harvest Period
Centennial	Mid-late	B, C, F	Med-Green	Medium dome	October - November
Diplomat	Mid-late	B, C, F	Blue-Green	Semi-dome, large, dense	August - Mid-October
Dynasty	Mid-late	B, C	Med-Green	Medium, domed	November - January
Eastern Crown	Mid	C	Blue-Green	Domed	July - October
Eastern Magic	Mid-late	C, S	Blue-Green	High dome	August - October
Emerald Crown	Mid	C	Blue-Green	Semi-dome, large, dense	August - November
Empire	Mid-late	C	Blue-Green	Domed, round, dense	Mid-September - October
Endurance	Mid-late	C, P	Med-Green	Domed, dense	October - November
Expo	Mid-late	C, P	Med-Green	Semi-dome, large, dense	October - November
Fortress	Mid-late	B, C	Med-Green	Semi-dome, med, dense	May – June, Oct – Nov
Godzilla	Mid-late	B, C, F, P	Dark green	Large/dense w/semi-dome	Mid-September - October
Green Magic	Mid	B, C, F	Blue-Green	Semi-dome, large, dense	August - September
Gypsy	Mid	B, C	Med-Green	Smooth dome	August - Mid-October
Imperial	Mid-late/late	B, C, F, P	Blue-Green	Domed, round	August - October
Kingdom	Early	B, C, F, P	Blue-Green	Domed, round	July - October
Marathon	Mid-late	B, C, F, P	Blue-Green	High dome, dense	October - November
Marathon Elite	Mid-late	B, C, F, P	Blue-Green	High dome, dense	October - November
Millennium	Late	C, F, P	Blue-Green	High dome, round, large	September - November

FLORIDA / GEORGIA

DIPLOMAT
- Performs well in long day length and moderate heat conditions

DYNASTY
- Harvest uniformity
- Head quality
- Anthocyanin free

EASTERN CROWN
- Performs well in long day length and moderate heat
- For crown cut and short trim

EMERALD CROWN
- Produces excellent quality crown cuts/short trim in all NAFTA regions
- Highly resistant to purpling
- Anthocyanin-free (will not purple)

GREEN MAGIC
- Multi-use variety
- Widely adaptable

GYPSY
- Good choice for organic production

IMPERIAL
- Performs well in long day length and moderate heat
- Good for crown cut and processing

KINGDOM
- Early maturity with nice dome shape
- Good crown quality for early-type
- Fresh market

MILLENNIUM
- Excellent for crown cut and short trim
- High domed, small-beaded
- Anthocyanin-free (will not purple)

FLORIDA / GEORGIA

Regional Reference Chart

Product Usage: (B) = Bunching, (C) = Crown Cut (F) = Florets, (P) = Processing/Freezing

Variety	Relative Maturity	Product Usage	Head Color	Head Characteristics	Harvest Period
Diplomat	Mid-late	B, C, F	Blue-Green	Semi-dome, large, dense	September - November
Dynasty	Mid-late	B, C	Med-Green	Well dome-shaped	November - January
Eastern Crown	Mid	C	Blue-Green	Domed	Oct-Nov/Jan - March
Emerald Crown	Mid	C	Blue-Green	Semi-dome, large, dense	December/March
Green Magic	Mid	B, C, F	Blue-Green	Semi-dome, large, dense	December/March
Gypsy	Mid	B, C	Med-Green	Smooth dome	November - December
Imperial	Mid-late/late	B, C, F, P	Blue-Green	Domed, round	February - March
Kingdom	Early	B, C, F, P	Blue-Green	Domed, round	December - March
Millennium	Late	C, F, P	Blue-Green	High dome, round, large	January - March

MEXICO & Guatemala

AVENGER
- High percentage of crown cut
- Excellent holding ability
- Good for processing

DIAMANTE
- Excellent for crown cut and processing
- Terrific blue-green color
- Exceptional post-harvest color retention

EASTERN MAGIC
- Performs well in long day length and moderate heat
- Excellent blue-green color

EMPIRE
- Crown cut/short trim type
- Overwinter and fall harvest slots in Coastal California
- Blind plant tolerant

ENDURANCE
- For crown cut and short trim
- Reduced side shoots
- Good plant uniformity
- Blind plant tolerance

ESCUDO
- Multi-use
- High head position
- Anthocyanin-free (will not purple)
- Pin rot (IR)

GODZILLA
- Multi-use variety
- Mid-high head position for easier harvest

IMPERIAL
- Performs well in long day length and moderate heat
- Good for crown cut and processing

MARATHON
- Uniform and sizes well in cold, overwinter production
- Multi-use variety

MARATHON ELITE
- Uniform
- Good for cool season production
- Multi-use variety

MILLENNIUM
- Excellent for crown cut and short trim
- High domed, small-beaded
- Anthocyanin-free (will not purple)

SUPER CORONA
- Vigorous upright plant
- Anthocyanin-free (will not purple)
- Multi-use variety
- SMX & SGU Exclusive

SUPER DIAMANTE
- Excellent for crown cut and processing
- Terrific blue-green color
- Exceptional post-harvest color retention

MEXICO & Guatemala

Regional Reference Chart

Product Usage: (B) = Bunching, (C) = Crown Cut
(F) = Florets, (P) = Processing/Freezing

Variety	Relative Maturity	Product Usage	Head Color	Head Characteristics	Harvest Period
Avenger	Mid-late	C, F, P	Blue-Green	Domed, dense	January - June
Diamante	Mid-late/late	C, F, P	Blue-Green	Domed, dense	August - November
Eastern Magic	Mid-late	C	Blue-Green	High dome	August - October
Empire	Mid-late	B, C, F	Med-Green	Large/dense w/high dome	November - Early Mar
Endurance	Mid-late	C, P	Med-Green	Domed, dense	October – January
Escudo	Mid-late	C, F, P	Green	Domed	July – September
Godzilla	Mid-late	B, C, F, P	Dark green	Large/dense w/semi-dome	October – January
Imperial	Mid-late/late	B, C, F, P	Blue-Green	Domed, round	Mid-October - Dec
Marathon	Mid-late	B, C, F, P	Blue-Green	High dome, dense	October – January
Marathon Elite	Mid-late	B, C, F, P	Blue-Green	High dome, dense	October – January
Millennium	Late	C, F, P	Blue-Green	High dome, round, large	October – January
Super Corona	Mid	C, F, P	Blue-Green	Semi-domed, round, dense	Mid-Sept – May
Super Diamante	Mid-late/late	C, F, P	Blue-Green	Domed, dense	October – January

HARVEST CALENDAR

Salinas Valley

Avenger	Aug-Mid-Nov/Apr-Jun
Centennial	Nov - May
Diamante	August - Nov
Emerald Crown	August - Dec
Empire	Mar-May/Oct-Dec
Endurance	Nov - Early May
Expo	Nov - Early May
Fortress	May-Jun/Oct-Nov
Godzilla	Mar-Jun/Oct-Nov
Green Magic	Sept - Nov
Imperial	August - Nov
Marathon	Oct - May
Marathon Elite	Oct - May
Millennium	August - Nov
Patron	July - Mid-Oct

Santa Maria

Avenger	Sept - April
Centennial	Oct - April
Diamante	August - Nov
Empire	Mar-May/Oct-Dec
Endurance	Oct - May
Expo	Oct - May
Fortress	May-Jun/Oct-Nov
Godzilla	Mar-Jun/Oct-Nov
Green Magic	July - Mid-Nov
Gypsy	July - Oct
Imperial	July - Nov
Marathon	Oct - May
Marathon Elite	Oct - May
Maverick	Apr-June/Oct-Nov
Millenium	August - Nov
Patron	July - Oct

San Joaquin Valley

Avenger	Oct - March
Centennial	Dec - March
Diamante	Oct - March
Dynasty	Nov - Jan
Endurance	Dec - March
Expo	Dec - March
Fortress	May-Jun/Oct-Nov
Godzilla	Oct - March
Green Magic	Oct - Dec
Imperial	Oct - Dec
Kingdom	Oct - Nov
Marathon	Oct - March
Marathon Elite	Oct - March
Maverick	April - June
Millennium	Oct - March

Yuma & Imperial Valley

Avenger	Mid-Feb - Mar
Centennial	Mid-Feb - Late Mar
Destiny	Late Nov - Late Dec
Diamante	Jan - Feb
Dynasty	Mid-Dec - Feb
Eastern Crown	Feb - Mar
Emerald Crown	Mid-Dec - Jan
Emerald Jewel	Jan - Mar
Emerald Star	Feb - Mar
Empire	Mid-Jan - Mar
Endurance	Jan - Feb
Fortress	Jan - Feb
Godzilla	Mid-Feb - Mid-Mar
Green Gold	Mid-Dec - Feb
Green Magic	Mid-Dec - Mid-Jan
Imperial	Mid-Nov - Dec
Kingdom	Dec - Early Jan
Marathon	Mid-Feb - Late Mar
Marathon Elite	Mid-Feb - Late Mar
Millennium	Jan - Feb

Pacific Northwest

Centennial	Oct - Nov
Diplomat	Sept - Nov
Dynasty	Sept - Nov
Emerald Crown	August - Nov
Emerald Jewel	Sept - Nov
Endurance	Oct - Nov
Expo	Oct - Nov
Fortress	May-Jun/Oct-Nov
Godzilla	Mid-Sept - Oct
Green Magic	Sept - Nov
Gypsy	Sept - Nov
Imperial	August - Nov
Kingdom	August - Sept
Marathon	Oct - Nov
Marathon Elite	Oct - Nov

Northeast & MidWest

Centennial	Oct - Nov
Diplomat	August - Mid-Oct
Dynasty	Nov - Jan
Eastern Crown	July - Oct
Eastern Magic	August - Oct
Emerald Crown	August - Nov
Empire	Mid-Sept - Oct
Endurance	Oct - Nov
Expo	Oct - Nov
Fortress	August - Early Oct
Godzilla	Mid-Sept - Oct
Green Magic	August - Sept
Gypsy	August - Mid-Oct
Imperial	August - Oct
Kingdom	July - Oct
Marathon	Oct - Nov
Marathon Elite	Oct - Nov
Millennium	Sept - Nov

Florida

Diplomat	Sept - Nov
Dynasty	Nov - Jan
Eastern Crown	Oct-Nov/Jan-Mar
Emerald Crown	Dec/Mar
Green Magic	Dec/Mar
Gypsy	Nov - Dec
Imperial	Feb - Mar
Kingdom	Dec - Mar
Millennium	Jan - Mar

Mexico & Guatemala

Avenger	Jan - June
Diamante	Aug - Nov
Eastern Magic	Aug - Oct
Empire	Nov - Early Mar
Endurance	Oct - Jan
Escudo	July - Sept
Godzilla	Oct - Jan
Imperial	Mid-Oct - Dec
Marathon	Oct - Jan
Marathon Elite	Oct - Jan
Millennium	Oct - Jan
Super Corona	Mid-Sept - May
Super Diamante	Oct - Jan

Standard Packaging*

Crown Cuts
- 20 lb box, bulk 34, 38 & 42 ct

Bunches
- 23 lb carton, 14 and 18 ct

Florets
- 9 to 18 lb, cello bags packed in carton
- 8 oz and 1 lb retail packs (2 inches or less)
- 3 lb cello bags for foodservice

Fresh-Cut Spears
- 10, 15 and 20 lb loose packed cartons

Broccoli Cole Slaw
- 8 oz, 1 lb and 5 lb bags (shredded broccoli, red cabbage and carrots)

Handling & Storage

Temperature	**32°F, 0°C**
Relative Humidity	**95-100%**
Mist	**Lightly** (unpackaged)
Typical Shelf Life	**Bunched** 10-14 days **Packaged** 14-16 days
Ethylene	**Sensitive** Do not store or transport ethylene sensitive items with commodities that produce ethylene
Freeze	**Moderately sensitive**
Injury	Broccoli can recover from 1-2 nights of light freezing

Tip
Soaking in cold water can revive slightly wilted broccoli

*Iceless broccoli is usually available from most shippers or brokers, but may require special ordering. Some suppliers also offer shrink-wrapped product. Products made with broccoli stalks may include: diced, coin-cut and shredded.

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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. Reed all seed package labeling as it contains Sakata Seeds America, Inc. terms and conditions of sale.

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