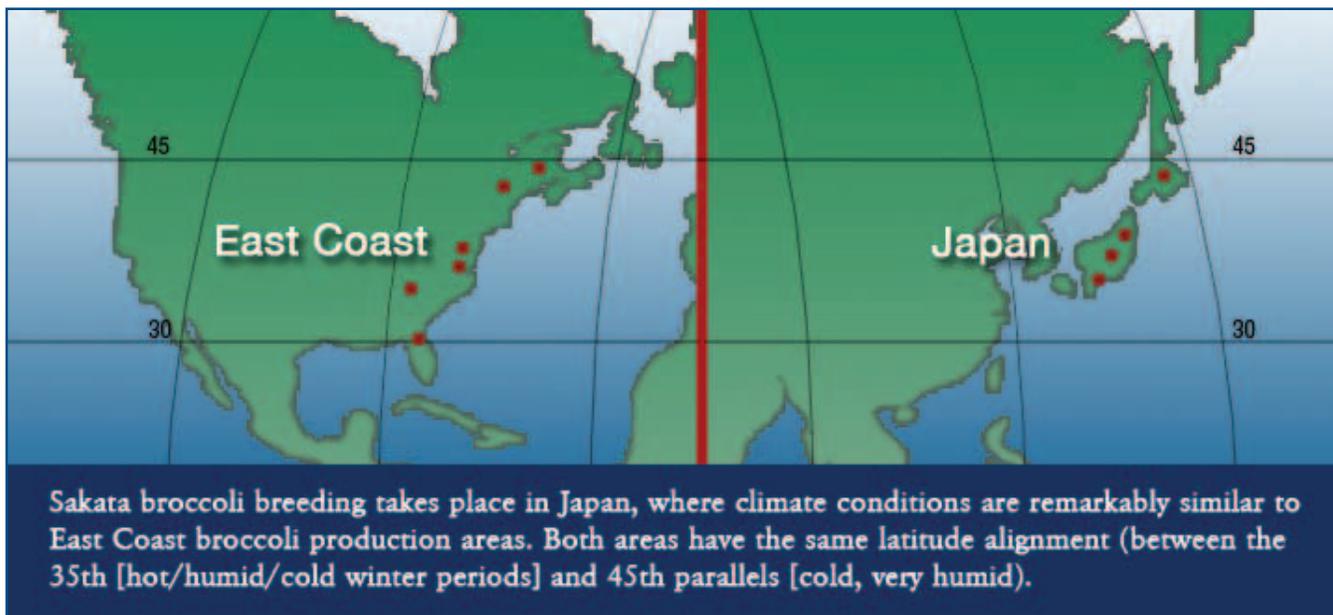


Broccoli Bulletin • *Eastern Edition*

Leading

Sakata Seed Corporation was founded in 1913 and is headquartered in Yokohama, Japan. We are recognized as a global leader in the development of vegetables and flowers genetics, and are organized into four major divisions operating in Asia, Europe, North and Central America, and South America.

Sakata Seed America was established in 1977 as a research, production and sales division of Sakata Seed Corporation. Sakata Seed America is headquartered in Morgan Hill, CA. Our research facilities include stations in Salinas, California; Yuma, Arizona; and Fort Myers, Florida. These facilities focus on vegetable breeding and trialing that is specific to the region's climate conditions.



With 100 years of experience in commercial and home grown vegetable breeding and production, and in flowering ornamentals, Sakata has survived world wars, economic crises and natural disasters to continuously create new standards in global vegetable and ornamental markets. In a marketplace characterized by intensive consolidation, we stand as a symbol of independence, innovation and reliability.

Specifically, as the undisputed leader in breeding and producing broccoli seed, our extensive research efforts for more than 50 years have produced varieties that have allowed growers to produce superior quality broccoli in a more economically sustainable and efficient way.

Sakata in the Eastern United States

For many years, Sakata has maintained germplasm for the development of future varieties that are well adapted to the varying weather conditions in the East. Sakata has been extremely successful in creating and introducing new varieties suited for the Eastern market since the 1980's.

In the Eastern United States, Sakata trials various products annually and continues to adapt its breeding programs to fulfill the needs of growers who face varying weather conditions. Our Florida research station is specifically for research and development of varieties that need to work with the surrounding environment.

By making full use of the climate and environmental conditions in various regions around the world, we are able to develop new varieties ideally suited to a wide range of environments. Our research facilities feature advanced equipment for top-level research and development, including biotechnology.

Commitment to the Broccoli Market

A trend in consumers leaning toward making purchases that are locally grown has been recognized by the broccoli industry. With the increase in shipping costs for all products alike, the dynamics of broccoli production have changed and growers on the east coast are beginning to find they can be competitive and successful in growing this crop, to supply the local market.

Many years ago Sakata noticed a steady shift in consumer trends in regards to purchasing broccoli at both wholesale and retail outlets. Consumers wanted more “crown-cut” products (shorter stem, more floret) and short trim or “Asian cut” products (almost no stem; all floret). Although our program continues to breed for multi-use varieties including bunch, crown, fresh and frozen floret, we have concentrated considerable time and effort into the development of varieties that are more suited for the changing market. We continually develop new genetics that fit such shifts in consumer trends.

In addition, some of our varieties have had such wide adaptability that they have continually performed well in various environments, including the Northeast and Southeast. Such varieties like Marathon, Gypsy, Imperial, Green Magic, Emerald Crown, and Green Gold were bred for multiple regions. These varieties have long-term, proven performance for the hot, humid and highly unpredictable weather patterns of the East Coast. Arcadia, Emerald Pride, Emerald Isle, and Diplomat primarily sell for the long day length/warm-to-hot summer temperature conditions of the Northeast.

A Few Eastern Performers



Timeline - Varieties for Eastern U.S. Release Dates

1985 - <i>Shogun</i>	1996 - <i>Decathlon</i>	2007 - <i>Emerald Crown</i>
1987 - <i>Green Valiant</i>	1999 - <i>Nomad</i>	2007 - <i>Emerald Isle</i>
1987 - <i>Marathon</i>	2001 - <i>Gypsy</i>	2007 - <i>Imperial</i>
1988 - <i>Arcadia</i>	2002 - <i>Green Magic</i>	2008 - <i>Emerald Pride</i>
1988 - <i>Greenbelt</i>	2004 - <i>Diplomat</i>	2010 - <i>Green Gold</i>

With many more on the horizon!

University Trials in the Eastern U.S.

For many years, Sakata broccoli has been put to the test in regional trials to determine which varieties can create high yields in the Eastern climate and enhance the broccoli market. Studies conducted by various universities demonstrate that numerous Sakata varieties are highly recommended for broccoli production in Eastern climates.

- A study conducted with the University of Georgia demonstrates high yield potential of broccoli, specifically our Gypsy variety, with the proper plant spacing and arrangements ideally for the Georgia climate. (For more information, see www.sakatavegetables.com)
- A study conducted by Thomas Bjorkman and Joe Shail with the Department of Horticulture, Cornell University reports that high fertility vegetable soils found in New York support a high yield of the Sakata variety, Diplomat, with the proper crop management. (For more information, see www.sakatavegetables.com)
- The New Jersey Agricultural Experiment Station, a part of Rutgers, The State University of New Jersey, published the 2013 Commercial Vegetable Production Recommendations for growers in the mid-Atlantic area. (Published February 2013). (For more information, see www.sakatavegetables.com)

Rutgers Recommendations for Mid-Atlantic Growers

Specifically included in the 2013 Commercial Vegetable Production Recommendations manual for Mid-Atlantic growers were the Sakata broccoli varieties listed below:

Imperial (heat tolerant)	Arcadia
Emerald Pride (heat tolerant)	Gypsy
Green Gold	Green Magic
Emerald Crown (heat tolerant)	Diplomat

Broccoli Harvesting Schedules

The charts below highlight Sakata's broccoli varieties which can be successfully grown in key broccoli production areas in the Northeast/Midwest and Florida/Southeast.

Florida / Southeast - Fall / Winter / Spring	
Variety	Harvesting Period*
Centennial	January - February
Emerald Crown	December; March
Emerald Isle	January - March
Emerald Jewel	February - March
Endurance	January - February
Expo	January - February
Green Gold	January - February
Green Magic	December; March
Gypsy	November - December
Imperial	February - March
Marathon	January - February

Northeast / Midwest - Summer / Fall	
Variety	Harvesting Period*
Arcadia	August - Mid-October
Centennial	October - November
Diplomat	August - Mid-October
Emerald Crown	August - November
Emerald Isle	August - November
Emerald Jewel	August - November
Emerald Pride	August - October
Endurance	October - November
Expo	October - November
Green Gold	August - October
Green Magic	August - September
Gypsy	August - Mid-October
Imperial	August - October
Marathon	October - November

Distributors in the Eastern U.S.

Sakata distributors specialize in fulfilling the needs of the surrounding market. It is important to focus on an area's distinct needs in order to offer year-round availability for the consumer. For a list of distributors in the East, please visit our website.

Who to Contact at Sakata

We are proud to bring exceptional new varieties to the market, with many more on the horizon. We understand how important having a broccoli market on the East Coast is and how that can contribute to a reliable grower base to supply markets. We're always here to help with more information, trial data, sample seed and guidance. Please feel free to contact us if you need any assistance.

You can also contact our regional product managers that are specific to your area, including those listed below.

- Matt Linder, Senior Product Manager (mlinder@sakata.com)
- Atlee Burpee, Eastern Sales Manager & Senior Eastern Product Manager (aburpee@sakata.com)

Our Stance on Genetically Modified Organisms

At Sakata, none of our commercialized varieties, either flowers or vegetables, are Genetically Modified Organism (GMO) products. To read our entire GMO statement, please visit our website.

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 Seed America, Inc. terms and conditions of sale.

Sakata Seed America, Inc.

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