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## Getting Started in Asparagus Production Part 1: Asparagus Varieties

Carl Cantaluppi, Horticulture Agent, North Carolina Cooperative Extension, Granville and Person Counties

*Editor's note: This is the first of a four part series on asparagus written by Carl Cantaluppi, North Carolina State University Cooperative Extension. Carl is a well-known national expert in asparagus production, and in this series he shares with us his many years of experience working with this crop and provides key considerations for grower success.*

Asparagus is a vegetable that is gaining popularity as our northern neighbors take up residency in the southeast, and are asking for it more and more in various retail markets.

Asparagus is a perennial crop that grows well on many of our soil types. A sandy loam soil is ideal, but it will also produce on a heavier soil, as long as it drains well. Asparagus does not like "wet feet". Asparagus is a long-term endeavor, as it can be productive for 15 or more years. Good site planning and build-up of soils is important prior to planting.

Variety choice is an important first consideration. Normally, asparagus is dioecious, meaning that male and female flowers are produced on different plants. The female flowers produce seeds that fall to the ground, creating a seedling asparagus weed problem in the field. Also the female plants have to expend more energy to produce the seed while in the fern growth stage. As a result the spear yield of a female plant is about 50% less than the spear yield of a male plant, which does not produce seed.

"All-male" hybrids are now being offered by most nursery sources. Male hybrids can out-yield the old open pollinated, male/female varieties by 3 to 1. These male hybrids are not technically all male, but about 93% males, having about 7% female plants mixed in. Male hybrid varieties that are currently available as one-year-old crowns include Jersey Giant, Jersey Knight, Jersey Gem, and Jersey King. Jersey Giant still seems to have the widest geographic area of adaptability throughout the U.S.

There are some new asparagus varieties coming out of California, such as Atlas, Apollo, and Grande. They are using a New Jersey male parent and crossing with a non-male California hybrid, called UC 157. These new varieties are dioecious, but the objective is to have varieties that will produce taller spears without the tips opening up under high air temperatures. When the spear tip opens up or "ferns out", lignin is put down at the base of the spear, causing it to become tough or woody.

The spear tips of the New Jersey male varieties will open up at a shorter height (5-7 inches) under warm temperatures, forcing you to sacrifice spear weight in order to maintain spear quality.

The California hybrids will allow you to harvest taller spears (7-9 inches) with tight tips, while still maintaining a tender spear. The new California hybrids are hoping to combine the high yielding characteristics of the N.J. males with the tighter tip qualities of the California varieties, such as UC 157.

Other varieties include Viola, or Purple Passion. This is a purple variety that has purple spears. It is higher in sugar content than green asparagus. When it's cooked, the purple color is lost and it reverts back to green. It is strictly a novelty type. It is not a high yielder, but is one that you might want to sell to fit a niche market and charge a premium price for. Viola is not a male hybrid and the female plants produce plenty of seeds, so be on the lookout!

Asparagus Crown and Seed Sources - 2002

Jersey Asparagus Farms, Inc. 105 Porchtown Rd Pittsgrove, NJ 08318 856-358-2548 856-358-6127 FAX	Dick Walsworth Route 1 Mears, MI 49436 616-873-2418
Nourse Farms, Inc. 41 River Rd. South Deerfield, MA 01373 413-665-2658 413-665-7888 FAX	Ron Richter Farms Route 2 90487-60th Street Decatur, MI 49045 616-423-7339
Daisy Farms 91098-60th St. Decatur, MI 49045 616-782-6321	Krohne Plant Farms 65295 CR342 Hartford, MI 49057 616-424-5423 616-424-3126 FAX

This list is intended only as a convenient reference for growers. Inclusion in the list does not imply endorsement by North Carolina State University or Virginia Tech, nor does exclusion imply that the crowns or seed of a particular source are inferior. The list does not pretend to be exhaustive, and undoubtedly there are other suitable sources of asparagus crowns and seed.

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