

Asparagus from Seed or Crown

Contact: Diane Relf, Extension Specialist, Environmental Horticulture

August 1996

If you want a bed of asparagus, you start with some nice, healthy crowns, right? Not necessarily so, according to recent research.

Sure, crowns are still a reasonable way to start, but seeds give you a chance to try some new, improved varieties. In the last few years, varieties such as 'Greenwich,' 'Jersey Giant,' 'Jersey Gem,' 'Jersey General,' 'Jersey King,' 'Jersey Knight,' and 'Jersey Titan' have been released by various research institutes. You won't find a name like 'Jersey Queen' on the list; besides being improved in rust-resistance and yield, all of these varieties are "all-male."

All-male varieties don't produce seed. No seed production means no weed seedlings in the asparagus bed, and all of the food the plant produces goes to produce bigger plants, not berries. Bigger plants, of course, mean bigger yields. You may get twice the yield from an all-male hybrid than you could get from a variety with both male and female plants.

You can improve that yield even more by selecting a variety suited to your growing region. One study tested many of the "Jersey" varieties at several locations. Performance varied quite a bit at various sites. 'Jersey Gem' yielded best at a North Carolina site. Proximity suggests that 'Jersey Gem' might be well suited to Virginia, too.

Although you could start seed now, it may be just as well to wait until summer. This way, you won't tie up scarce greenhouse or windowsill space with asparagus seedlings. One study demonstrated that seedlings started in late summer and either planted directly in the field or held over in a well-insulated cold frame survived the winter just fine.

Once you've planted your asparagus seedlings, mulch them. In one study, mulched transplants were larger and had more crown buds than did unmulched transplants. These improvements were probably caused by increased moisture in the mulched beds. The researchers used plastic mulch, but an organic mulch should work as well.

A study at Virginia Tech confirmed the benefits of adequate moisture. Subsurface, trickle irrigation increased plant growth and yield over plants irrigated by surface, trickle

irrigation; sprinklers; or nonirrigated. In the same study, crowns outyielded transplants in most cases, probably due to an age advantage. Interestingly enough, transplants in the subsurface irrigation group outyielded crowns in the same group by year five of the study. The researchers concluded that seedling transplants were a viable alternative to crowns.

Whether you start with seedlings or crowns, you will have to decide how deep to plant them. Recent research comparing planting depths of 2, 4, 6, and 8 inches found no difference in total yield between depths. However, the shallow plantings led to numerous, smaller spears. Shallow plantings also sprouted earlier in the spring, allowing possible frost damage. You might plant some plants shallow to get an early taste of asparagus, and plant the rest deep to get larger spears.

How long after planting should you wait to begin harvest? Past studies in California have found no effect on yield from harvesting one year after planting crowns. Contrarily, a recent Nebraska study found that plots harvested one year after planting crowns had a 23 percent smaller cumulative yield after five years than did plots harvested for the first time two years after planting. The longer California growing season probably allowed the plants to recover from the early harvest. Here in the mountainous, western portion of Virginia, we have a growing season similar to Nebraska, but in the coastal, eastern portion of the state, we are similar to California. I'd recommend waiting the full two years (three for seedlings) before harvest if gardening in the mountains, but go ahead and harvest lightly for a short season the second year if gardening in the eastern part of Virginia.

(Originally published as "Research Roundup: Asparagus from Seed or Crown," by Ellen M. Silva, Department of Horticulture, Virginia Tech, in The Virginia Gardener Newsletter, Volume 11, Number 2.)