

Growing Asparagus

Asparagus is one of the most wholesome and appetizing products of the garden. Early appearance of asparagus in the spring makes it of special importance. The young, tender shoots of asparagus usually reach cutting size about the second week in May. These shoots may be cut every other day if temperature and moisture conditions are favorable.

Asparagus is a long-lived perennial vegetable crop that is enjoyed by many gardeners. It can be productive for 15 or more years if given proper care.

Varieties

Mary Washington is the most widely grown and generally available variety. It is tolerant to rust and when properly grown, produces good, high quality yields. **Viking** and **Jersey Giant** are also tolerant to rust and are becoming more available.

Select the new all-male hybrid asparagus varieties such as **Jersey Giant**, **Jersey Prince**, and **Jersey Knight**. These varieties produce spears only on male plants. Seeds produced on female plants fall to the ground and become a seedling weed problem in the garden. Female plants also have to expend more energy to produce the seeds that decreases the yields of asparagus spears on female plants. The all-male hybrids out-yield the old Mary Washington varieties by 3 to 1.

Soil Requirements

Asparagus grows in most any soil as long as it has good internal drainage. Asparagus roots do not like waterlogged soils that will lead to root rot. It prefers a soil pH of 6.5-7.5., and will not do well if the pH is less than 6.0. Have the soil tested to determine phosphorus and potassium needs; or add 20 lbs of a 10-20-10 or similar analysis fertilizer per 1,000 square feet, tilled to a 6 inch depth before planting.

Planting

Buy one-year-old, healthy, disease-free crowns from a reputable crown grower. A crown is the root system of a one-year-old asparagus plant that is grown from seed. Each crown can produce 1/2 lb. of spears per year when fully established.

Asparagus can be planted from seed. However, caring for the small seedlings until they become established can be time consuming. Also, because the seeds are spaced a few inches apart, the crowns will have to be dug and transplanted to their permanent, wider-spaced location in the garden after one year. Thus, one year of potential spear production is lost due to transplanting.

Asparagus can be planted throughout Ohio from mid-April to late May after the soil has warmed up to about 50 degrees F. There is no advantage to planting the crowns in cold, wet soils. They will not grow until the soil warms and there is danger of the plants being more susceptible to Fusarium crown rot if crowns are exposed to cold, wet soils over a prolonged period. Plant the asparagus at either the west or north side of the garden so that it will not shade the other vegetables and will not be injured when the rest of the garden is tilled.

Dig a furrow no deeper than 5 to 6 inches. Research has shown that the deeper asparagus crowns are planted, the more the total yield is reduced. Apply about 1 lb. of 0-46-0 (triple superphosphate) or 2 lbs. of 0-20-0 (superphosphate) fertilizer per 50 feet of row in the bottom of the furrow before planting. This will make phosphorus immediately available to the crowns. Omitting this procedure will result in decreased yields and the spear production will not be as vigorous.

Toss the crowns into the furrow on top of the fertilizer. The fertilizer will not burn the crowns, and the plants will grow regardless of how they land so don't bother to spread the roots. Space the crowns 1-1/2 feet apart in the row. If more than one row is planted, space the rows five feet apart from center to center. Wide between-row spacing is necessary because the vigorously growing fern will fill in the space quickly. Wide spacing also promotes rapid drying of the fern to help prevent the onset of fungus diseases.

After planting, back fill the furrow to its original soil level. It isn't necessary to gradually cover the crowns with a few inches of soil until the furrow is filled in. However, do not compact the soil over the newly filled furrow or the emergence of the asparagus will be severely reduced. Spears should emerge within one week in moist soils.

Do not harvest the asparagus during the planting year. Spears will be produced from expanded buds on the crown. As the spears elongate and reach a height of about 8 to 9 inches, the tips will open. The spear will become woody to support the small branchlets that become ferns. The ferns produce food for the plant and then move it down to the crown for next year's spear production.

Asparagus is very drought tolerant and can usually grow without supplemental watering because it seeks moisture deep in the soil. However, if rainfall is insufficient when planting or afterwards, it is beneficial to irrigate the crowns. Otherwise the plants will become stressed and vigorous growth will be impeded.

Insects and Diseases

Inspect the ferns throughout the season for insect feeding and fern dieback. Asparagus beetles chew on the fern, causing the stem to turn brown and reducing the yield the next year. Spray the ferns with an approved insecticide when beetles are seen. For disease prevention, spray with an approved fungicide on a 7 to 14 day schedule beginning when the ferns reach a 3 to 4 foot height and continuing until mid September.

Do not cut down the fern growth at the end of the growing season. The all-male hybrids stay green until frost, enabling photosynthesis to occur longer throughout the season. Leave the dead fern growth intact over the winter. This catches snow for additional soil moisture and keeps the soil temperature about 5 degrees F cooler than bare soil with no covering of dead fern. The cooler soil temperature is helpful in delaying the early emergence of asparagus in the spring, when air temperatures might rise prematurely and then fall again, predisposing the spears to frost damage. Frost-damaged spears should be snapped and discarded.

Remove the old fern growth by cutting or mowing as low as possible during the first week of April in central Ohio. Dead stalks are very sharp and can easily skin knuckles when harvesting new spears.

Weed Control

Weed control can be accomplished by hand hoeing and cultivating during the planting year since there are no herbicides labeled for use in asparagus during the first year. Labeled pre-emergence herbicides may be used during the second spring, by applying it over the shredded fern, about three weeks before spear emergence (April 1st in central Ohio). Do not use salt as a weed killer. It will not harm the asparagus, but it inhibits water penetration in the soil. Also, rains can leach the salt out of the asparagus bed and into the rest of the garden, injuring other vegetables that are less salt tolerant than asparagus.

Harvesting

Do not harvest asparagus regularly until the plants are well established in the permanent location. A light harvest may be taken the first season, with full harvests in subsequent years, as long as the plants are vigorous. Cease harvesting shoots in late June. If the shoots become spindly, stop cutting so that good growth may be made for the following year. Remember, the tops have the job of storing the food in the roots, which will produce next year's crop.

Harvest asparagus by **snapping** 7 to 9 inch spears with tight tips (when bent, the spear will snap naturally just above the tough part). There is no need to cut asparagus below the soil with a knife. This may injure other buds on the crown that will send up new spears. The small stub that is left in the soil after snapping, dries up and disintegrates. A new spear does not come up at the same spot, but comes up from another bud that enlarges on another part of the crown. White asparagus is produced by burying the plants in soil and harvesting the spears before they are exposed to sunlight.

As the tips of the spears start to loosen (known as "ferning out"), fiber begins to develop at the base of the spears, causing them to become tough. The diameter of the spear has no bearing on its toughness. However, thin and thick asparagus spears have the same number of what is called vascular bundles and thinner spears may be less tender, more fibrous; 3/8 to 3/4 inch in diameter is recommended. When harvesting, the asparagus patch should be picked clean, never allowing any spears to fern out, as this gives asparagus beetles an excellent site to lay their eggs.

The year after planting, asparagus can be harvested several times throughout a three-week period, depending on air temperatures. Research shows there is no need to wait two years after planting before harvesting. In fact, harvesting the year after planting will stimulate more bud production on the crown and provide greater yields in future years, as compared with waiting two years before harvesting.

Asparagus spears will start to emerge when the soil temperature reaches 50 degrees F. After this, growth of asparagus is dependent on air temperature. Early in the season, 7 to 9 inch spears might be harvested every 2 to 4 days. As air temperatures increase, harvesting frequencies will increase to once or twice per day, harvesting 5 to 7 inch spears before the tips start to fern out and lose quality. The second year after planting, the length of harvest can increase to about 4 to 6 weeks. The third year after planting and thereafter, harvesting can continue for 6 to 8 weeks. Since the length of harvest season will vary from year-to-year depending on air temperature, stop the harvest when the diameter of 3/4 of the spears becomes small (less than 3/8 inch). Experience gained by growing the crop will make it easier for the gardener to know when to discontinue the harvest.

When harvest is finished, snap all the spears off at ground level. Apply 1/2 lb. of ammonium nitrate fertilizer per 50 feet of row . At this time, a home garden formulation of glyphosate non-selective herbicide (such as Roundup) can be sprayed on the asparagus patch. This will kill any existing weeds. New spears will then emerge, fern out, and provide a large canopy to cover the space between the rows. Once a dense fern canopy is formed, weed growth will be shaded out.

Storage

Asparagus is very perishable and should be harvested in the morning when air temperatures are cool. After picking, immerse the spears in ice-cold water to remove the heat; then drain the water and place the spears in plastic bags. Store in the refrigerator at 38 to 40 degrees F. Asparagus will keep for 1 to 2 weeks with little loss of quality.