

GROWING ASPARAGUS



Temperature, Soil, And Fertilization

Asparagus grows best under maximum photosynthesis conditions: a long growing season and sunny days. Ideal day temperatures during the growing season are 75 to 85 degrees F with night temperatures 60 to 70 degrees F.

Asparagus is most productive on deep, well-drained sandy loam soils, but it will do well on other soils if it has good drainage. Asparagus plants lose vigor, become more susceptible to root rot, and die in poorly drained areas or following prolonged high rainfall.

It is very important to test your soil annually to determine pH and fertilizer requirements. Asparagus grows best when the pH is between 6.7 and 7.0. Nitrogen should be applied at a rate of 75 lbs. of actual nitrogen per acre, phosphorous at 250 lbs. per acre, and potassium at 300 lbs. per acre.

Planting Crowns

Use only healthy one-year-old crowns that are free of Fusarium root rot.

Prepare your field by broadcasting fertilizer at the above rates and working it in. Using a lister plow or middle buster, open a V-trench 6-8 inches deep. Apply super triple superphosphate (0-46-0) in the bottom of the trench at a rate of 200 lbs. per acre. (This is in addition to the phosphorous that was applied earlier.) Research has shown that the crowns will grow more vigorously when 0-46-0 is used. It will not burn the crowns.

Drop the crowns in the trench. The buds do not have to be facing tip. We suggest laying them on their sides. Distance between crowns (bud to bud) is determined by the spear diameter required. A thick spear (1/2 inch - 3/4 inch) is obtained by planting the crowns 12-14 inches apart. A thinner spear (3/8 inch - 5/8 inch) is obtained by planting 8-10 inches apart.

Once the crowns are placed in the trench, cover them with 1-2 inches of soil. Cover as soon as possible to prevent any sun damage to the crowns.

The distance between rows is usually determined by the spacing of your equipment. We recommend planting no closer than 4.5 feet between rows. Some varieties are very vigorous in their growth. If planted too close together, their ferns will become very dense and restrict air circulation. This creates a stagnant atmosphere where diseases can easily take hold and flourish.

As the asparagus grows, gradually fill in the trench with soil, being careful to avoid covering any asparagus foliage. The trench should be filled to ground level by the end of the first growing season. Side dress a 5-10-10 fertilizer in late July or early August at the rate your soil test specifies.

Adequate soil moisture is important during the first growing season. Weekly applications of irrigation sufficient to wet the soil 8 inches deep should be adequate. After the first growing season, asparagus plants do not require frequent irrigation because of their deep and extensive root system. Thorough watering (2 - 3 inches of water) slowly applied every two weeks during dry weather is sufficient.

Late in the fall of the first growing season, after the fern has turned completely brown, remove the brush (old stalks) and any weeds. In the following spring broadcast lime as needed to maintain the proper soil pH, add fertilizer, and apply herbicide.

Remove brush after it has turned brown during each succeeding fall. Each spring, before the asparagus emerges, broadcast lime if your annual soil test determines it is needed. At the same time spread half of the recommended fertilizer and work it in. Apply the herbicide. Immediately after the harvest season ends, spread the other half of the recommended fertilizer, work it in, apply the herbicide, then irrigate one inch of water. This will help speed the development of the fern so the photosynthesis process can begin.

Planting Seedlings

If growing seedling transplants, sow the seed in late winter in a greenhouse, 12 to 14 weeks before you plan to transplant them to the field. (Seedlings should be planted in the field only after the possibility of frost has passed.) Use a commercial potting mix of peat moss and vermiculite, and sow one seed 3/4-inch deep in small pots (2 inches diameter) or seed 2 inches by 2 inches in flats. Germinate seed at 75 to 80 degrees F during the day and 65 degrees F at night.

Apply a soluble, complete fertilizer, such as 15-15-15, at half the recommended rate 4, 8, and 12 weeks after sowing the seed. Rinse the foliage lightly with water after fertilizing to avoid injury to the tender growth. Excessive fertilization promotes large, over-tender tops and small root systems with limited reserves in the storage roots.

Watch for aphids and thrips! They will stunt the growth of young seedlings.

In the field, planting seedlings is similar to planting crowns. The only difference is in the shape of the trench: instead of a V-shaped trench, you must make a W-shaped trench. (This is usually accomplished with homemade trenchers.) The W-trench keeps the seedling above standing water in case of a hard rain.

Harvesting

There are two methods of harvesting asparagus: snapping and cutting. For cutting, use an asparagus knife. Cut the spear off about one inch below the soil line. Use caution not to cut too deep, as you may damage the asparagus crown. We advise adding a 4 inch ridge of soil once the spears begin to emerge - this will help prevent crown damage by workers cutting too deep.

Snapping simply involves breaking off the spears, leaving a stub on the plant. The upper portion that snaps off should be all green and still tender. One disadvantage to snapping is that the stub left behind can act as a breeding ground for diseases.

Whichever method you choose, harvest the spears when they are between 7-10 inches long. Harvest all spears that come up during the harvest season.