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Growing Asparagus & Rhubarb

Asparagus and rhubarb are perennial vegetables that produce a new crop year after year for 10 to 15 years or longer if the plants are given adequate care. Because these crops remain in the same location for many years, it's important to select a planting site that's convenient, as well as having good growing characteristics in mind. The edge of a garden might be preferable to the middle to accommodate future gardening activities.

Asparagus

Asparagus is grown for its succulent, immature shoots which, if allowed to grow, will eventually become the bushy-like foliage called *fern*. In southern New Hampshire the young spears emerge about the first week in May or when the soil temperature reaches about 40 degrees F. Growth continues into late fall or early winter until the fern is killed by frost.

Growth characteristics

The asparagus plant is made up of top (fern), crown (buds) and roots. All three are vital to a productive plant. The fern is the "factory," which, through the process of photosynthesis, produces food stored in the crown and roots below ground. The number of vigorous spears in the spring depends upon the amount of food produced and stored in the crown during the preceding summer and fall. Producing a good crop of fern is necessary for ensuring a good crop of spears the following spring.

Do not cut back the old fern at the end of the season until it is completely dead. The best time to remove old fern is in the spring since valuable food and nutrients move during the autumn months from the dying fern to the crown. Premature removal weakens the crown and may thereby reduce the size and number of spears the following spring.

Growing conditions

Site Full sun is ideal, but asparagus needs at least 8 hours of sun per day. Since asparagus is a long-lived perennial, do not plant where trees or tall shrubs might eventually shade the plants or compete for nutrients and water.
Soil The crown and root system can grow to an enormous size, 5 to 6 feet in diameter and 10 to 15 feet deep. Therefore, where possible, select a soil which is loose, deep, well-drained and fertile. On sites with poor soil, incorporate manure and compost into the soil and plant and till under two successive cover crops the season before you plant asparagus.
Fertilizer Have soil tested before planting and every three years thereafter. Adjust the soil pH to 6.5 to 6.8 by adding the appropriate quantity of limestone or wood ashes as recommended by the test lab. Fertilizer requirements are also determined by the same soil test. A general recommendation is to add manure, compost and mineral fertilizer equivalent to 2.5 pounds of 10-10-10 fertilizer per 100 square feet. All lime and fertilizer materials should be thoroughly incorporated into the soil to a depth of 10 to 12 inches before planting.

Planting
Asparagus is planted in the spring. The simplest method is to plant one-year-old crowns purchased from local garden dealers or through home garden catalogues. Even though the young crown will appear to be a lifeless mass of stringy roots, it will begin to send up small green shoots (spears) shortly after planting.

Set plants 18 inches apart in rows five feet apart. Dig holes or trenches about 8 inches deep and 10 inches wide. Spread the roots in the bottom of the hole or trench and cover the crown with about 2 inches of soil. As the young shoots continue to grow during the first summer, gradually fill in the hole with soil. The tops of the crowns should be about 6 inches below the soil surface when the trenches are completely filled. This allows for cultivation by hoe or rototiller and also provides a sufficient depth of soil for new buds to develop on top of the crown.

An alternative to using one-year-old crowns is to start asparagus transplants from seeds as you would start other vegetable transplants. About 6 to 8 weeks before planting, sow the seeds directly into pots. Thin to one plant per pot and, after all danger of frost has passed, plant the young seedlings as described above for crowns. Do not cover the young shoot (fern) with soil.

Weed control
Quackgrass Do not plant asparagus or any vegetable in an area heavily infested with quackgrass. If necessary, begin a year in advance to clean out the quackgrass, either by hand or mechanical cultivation or by spraying with an approved herbicide when the grass is 6 to 8 inches tall. *Follow label directions exactly* for safety and good weed control.
Annual Weeds Mulch with straw, grass clippings chopped leaves, or pine needles after the trenches have been filled in. Hand hoeing while weeds are small is also effective.

Pest control
The asparagus beetle is the most serious insect affecting asparagus. The larvae are dark and slug-like and are found on the fern. The adult beetle is red with black spots or metallic-colored with yellow spots. Hand pick the larvae or spray with an insecticide such as carbaryl (Sevin), rotenone or malathion.

Rust and Fusarium are common diseases. Most varieties are fairly resistant to rust. Burning old fern in the spring provides additional protection. Fusarium is difficult to control. Use varieties listed as tolerant and use land not previously planted to asparagus.

Harvest
Do not harvest asparagus until the third year after planting. The plants need at least two full seasons of growth before can build up ample food reserves for maximum production. In the third year, harvest only 2 to 3 weeks. In years thereafter, harvest no longer than 6 to 8 weeks (until about July 1 in southern New Hampshire). Harvesting for a longer period of time will not allow for maximum fern growth. Harvest the spears when they are 6 to 8 inches tall. Either snap or cut the spears off at ground level. To avoid injury to spears emerging later, do not cut more than one inch below the surface.

Storage
Asparagus is of highest quality when freshly harvested. It can be stored for a couple of weeks if the temperature is held at about 34 degrees F. and high relative humidity, but sweetness and flavor will deteriorate. Maintain short-term freshness by standing an asparagus bunch in about an inch of water in a flat-bottomed container.

Care of established plantings
Early each spring remove the old fern, cultivate to remove any perennial weeds, and apply fertilizer materials over the surface. Apply manure at about 2 bushels per 100 square feet and/or use 10-10-10 fertilizer at about 2.5 pounds per 100 square feet. Incorporate very lightly into soil, down to 1 to 2 inches at the most. Keep the asparagus planting weed free with mulches or by hand weeding.

Rhubarb

Rhubarb is grown for its stalks; the leaves are considered poisonous because of their high oxalic acid content. As with asparagus, the vigor of the stalks depends upon the amount of food reserves stored in the crown, which, in turn, depends on the vigor of the leaves.

Planting
Most local garden centers and home garden catalogs sell rhubarb crowns. Plant the crowns in the spring in a way very similar to that for asparagus. Space the rows 4 feet apart and space the plants 3 to 4 feet apart in the row.

Weed control and care
See recommendations for asparagus.

Pest control
Rhubarb is relatively free of insects and diseases. The major problem is crown rot. Periodically, about every 5 to 7 years, dig up the planting and discard the diseased crowns..

Harvest
Begin harvesting the third year after planting, after two full seasons of growth. Pull the stalks from the crown with a sturdy yank and cut off the leaves. Add leaves to the compost pile or leave in the garden. Begin harvesting in the spring when the leaves have fully expanded, or nearly so. By cutting only a few stalks at a time growers can harvest rhubarb throughout the whole summer. To maintain stalk vigor remove seedstalks as they develop.

Stop! *Read the label on every pesticide container each time before using the material. Pesticides must be applied only as directed on the label to be in compliance with the law. All pesticides listed in this publication are contingent upon continued registration. Contact the Division of Pesticide Control at (603) 271-3550 to check registration status. Dispose of empty containers safely, according to NH regulations.*

Fact sheet originally developed by Dr. Otho Wells, former UNH Cooperative Extension Vegetable Specialist, revised 2/01