service in ACTION

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Perennial vegetables for the home garden: asparagus, horseradish and rhubarb

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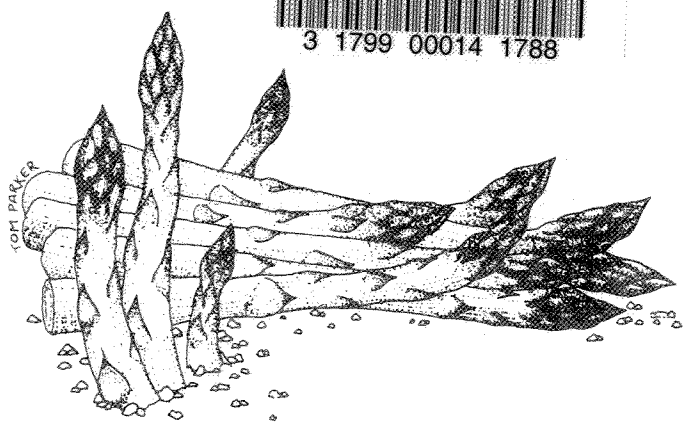

Quick Facts

- The three most common perennial garden vegetables in Colorado are asparagus, horseradish and rhubarb.
- Asparagus and rhubarb are two of the earliest garden vegetables while horseradish is fall harvested.
- These vegetables are hardy, relatively pest free and easy to maintain once they are established.
- Asparagus, horseradish and rhubarb are all suited to gardens up to 10,000 feet elevation.
- These perennial vegetables will remain productive for many years in the same location.
- Horseradish is more like an herb rather than a vegetable and two or three plants should suffice for the average garden.

Asparagus

Asparagus *(Asparagus officinalis)*, one of the earliest perennial vegetables, is in season for one month. This popular and hardy vegetable is relatively pest free and easy to maintain.

Planting

Asparagus should be planted in full sun in a location where it will not shade the garden with its tall fern or interfere with the annual preparation of the garden.

The area selected should be free of perennial weeds and receive a good initial supply of fertilizer. It always is best to fertilize according to a soil test; however, if the soil is not tested, a general recommendation is 10 cubic feet of organic matter, 3 pounds of ammonium nitrate (33-0-0), 6 pounds of superphosphate (0-46-0), 1 pound of zinc sulfate and 1 pound of iron chelate per 1,000 square feet prior to working the soil.

The soil should be worked as deep as practical and furrows made 4 to 10 inches deep and 4 feet apart (see Service in Action sheet 7.621, *Commercial vegetable production: asparagus*). Deeper furrows should be made in sandy soils. Home gardeners generally purchase year-old crowns and plant them one foot apart in the furrows during April. If plants are available, they may be planted in May, or asparagus seed may be directly planted in the furrows. Direct seeding invites a weed control problem that can be severe.

Over the season, gradually fill in the furrows as the plants grow, so at the end of the season the ground is level. Crowns will then develop well below the surface where they will avoid mechanical damage and fluctuating temperatures.

Mary and Martha Washington have predominated for 50 years because of their rust resistance.

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Several strains of Mary Washington have been developed, the most popular of which is 72 because of its large spears and tolerance to fusarium. Hybrid all-male lines such as Jersey Giant and Greenwich have become popular because of their uniform spear size and absence of fruit, which create the asparagus seedling weed problem.

Maintenance

There will be no production the year the bed is established. It should be cultivated and watered to assure future production. In early spring following the year of establishment, the ferns should be cut at ground level. Nitrogen fertilizer at the rate of 3 pounds ammonium nitrate per 1000 square feet should be added annually after fern removal and worked into the ground before any spears emerge. Good production depends on good fern growth. Therefore after the harvest season is over, cultivation, irrigation and pest control should be continued.

There should be no need for insect and disease control the first few years; however, weeds are always a problem. There are several herbicides that may be used on asparagus; however, the hazard of contaminating the rest of the garden and the problem of accurately applying them generally outweigh their advantage on a small bed. The recommended alternative is mechanical weed removal.

Harvest

Asparagus spears should be harvested just before the heads begin to open in order to get the maximum yield. For the commercial fresh market, spears are cut below the ground level with an asparagus knife to get the maximum length. After bunching, the butts are cut to a uniform length. Since the white butts are not eaten, there is little reason for a home gardener to cut spears beneath the surface when it is easier to snap them off at the surface. When practicing this method of harvesting, do not leave stubs because they will jab the fingers while making subsequent harvests.

Normally harvest season is from May 20 to June 20. However, harvesting may begin whenever spears over three-eighths inch in diameter appear. Thinner spears should be left to grow up to fern. As the reserves of the roots are depleted, the average diameter of the new spears decreases until no more than three-eighths inch spears are being produced. When this happens the harvest season is over.

Horseradish

Horseradish (Amoracia rusticana) is more of an herb than a vegetable because it is used primarily for flavoring. It is prized as a relish made from peeled and ground roots prepared just before use. Another method of using horseradish is to grind peeled roots into wine vinegar and store in glass jars under refrigeration until use. Finally, it may be used as an ingredient in sauces such as prepared mustard with horseradish.

Planting

Horseradish has a tendency to produce rough, forked roots when grown in heavy soils. Since most of Colorado's soils are heavy, the horseradish bed should be layered with 2 inches of compost, well-decayed leaf mold or rotted manure. On top of this should be applied 3 pounds of ammonium nitrate, 4 pounds of superphosphate, 1 pound of zinc sulfate and 1 pound of iron chelate per 1000 square feet. A fertilizer recommendation based upon a soil test of the intended site will prevail.

The bed should be spaded as deep as practical and rows 3 feet (90 cm) apart should be marked. Horseradish is propagated by roots that are purchased in bundles for either fall or spring planting. These roots should be planted 18 inches apart by either laying them in the bottom of a 6-inch furrow or inserting them in holes made with a steel bar. Always insert the root end with the sloping cut down since this cut represents the lower end. Roots planted upside down will not grow.

There is no basis for recommending any one variety of horseradish in Colorado, although it is suggested that the roots be purchased from a reliable source as a precaution against receiving diseased stock.

Maintenance

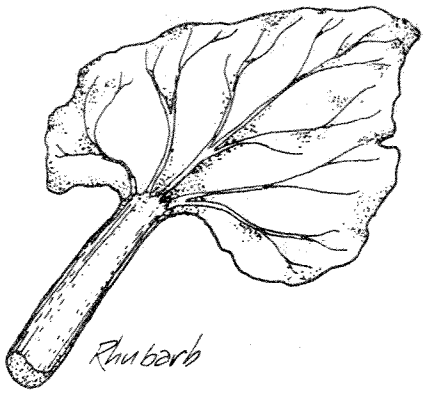
When disease-free stock is planted, horseradish crops are quite free of insects and disease, with weeds being the major problem. Both Dacthal and TOK are registered herbicides for horseradish and whether or not they should be used will depend on the size of the planting. When only a few plants are involved it is most practical to suppress weeds with a mulch, or physically remove them.

Harvest

Roots may be dug whenever they have reached sufficient size. This usually is done at the end of the first or second season. The roots may be moved directly into a root cellar or they may be cleaned and trimmed, then sorted, sold or processed. The typical commercial root is 12 inches long, 2 inches in diameter and fairly straight. Side roots and tails are removed in the trimming process. Any root not suitable for marketing yet 8 to 14 inches long and three-eighths inch or more in diameter may be replanted. Roots for replanting should have a sloping cut made at their basal end before they are bundled. They may be stored in the root cellar until spring or replanted before the ground freezes, preferably in a new location.

Rhubarb

Rhubarb (Rheum rhaponticum) is an early spring vegetable and the edible portion, the petiole, is similar to celery. Rhubarb is not eaten raw, but cooked, usually with sugar since it is quite acidic. The leaves contain toxic amounts of oxalic acid and should not be eaten.



Planting

Rhubarb occupies the soil for many years. Abundant organic matter and phosphorus should be applied initially because it is difficult to incorporate them into the root zone after planting. Therefore, the proposed bed should be layered with 2 inches of well decomposed leaf mold, compost or well rotted manure and topped with 3 pounds of ammonium nitrate, 6 pounds of superphosphate, 1 pound of zinc sulfate and 1 pound of iron chelate per 1000 square feet. This material should be worked into the bed as deeply as practical. A recommendation based upon a soil test of the bed, of course, should prevail.

Either seeds or roots of rhubarb are planted, although, for a small planting, roots are more practical and more available. There are both red and green stalk varieties available. The red varieties are preferred because they are sweeter, although there is no basis for recommending a specific red variety for growing in Colorado. Perhaps more important than a particular variety is securing disease-free stock.

The roots are planted 3 inches deep, 2 feet apart in rows 4 feet apart.

Maintenance and Harvesting

Rhubarb roots generally are planted in the spring and will produce no rhubarb that year. However, the bed should be irrigated and cultivated, and if insects or disease become a problem they should be controlled. Good growth is essential to build up the reserves in the crowns. These reserves are responsible for producing the stalks in the spring. In early spring, before growth begins, the bed should be raked, 3 pounds of ammonium nitrate per 1000 square feet applied, and cultivated into the ground.

Early in the season the stalks will be large and these stalks may be harvested as soon as the leaf is fully expanded by grasping the stalk at the base and giving it a sharp pull. As harvesting continues, the crown reserves will be depleted and the stalks will diminish in size. Stalks less than one-half inch should not be harvested, but left to help regenerate the crowns. After two months when no more large stalks are being produced, the harvest season is over.

A rhubarb bed may remain indefinitely productive; however, when production diminishes, relocating the bed should be considered. This is done by dividing the crowns in early spring and replanting the best ones, being sure they have at least two good buds. If there is any sign of disease, prudence dictates that new roots be purchased.