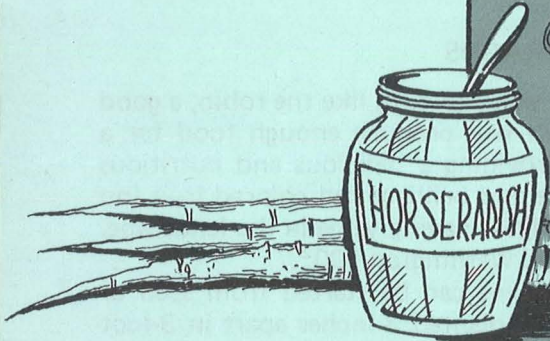


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growing
**ASPARAGUS,
RHUBARB and
HORSERADISH**
in
NEBRASKA GARDENS



EXTENSION SERVICE
UNIVERSITY OF NEBRASKA COLLEGE OF AGRICULTURE
COOPERATING WITH THE U.S. DEPARTMENT OF AGRICULTURE
AND THE COLLEGE OF HOME ECONOMICS
E. F. FROLIK, DEAN; J. L. ADAMS, DIRECTOR

growing ASPARAGUS, RHUBARB and HORSERADISH in Nebraska Gardens

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Asparagus, rhubarb and horseradish are adapted to Nebraska's climate. They require relatively little care, once established, and will produce for a number of years. Any good soil is suitable for these crops if it is sufficiently deep and well drained. Plant these perennial vegetables where they will not be disturbed.

Soil preparation. Liberal quantities of fertilizer and manure, applied before planting, will help assure that important future nutrient requirements are met. A broadcast application of 30 to 40 pounds of 10-10-10, 10-6-4 or other complete fertilizer and 500 to 1000 pounds of manure, if available, per 1000 square feet should be turned 6-8 inches deep in the soil.

ASPARAGUS

Asparagus, one of the earliest vegetables, is, like the robin, a good sign of spring. A 35-40 foot row will produce enough food for a family of five. In addition to providing a delicious and nutritious food, its feathery fern-like foliage and brilliant red colored fruit (on female plant) are ornamental qualities having value in the landscape.

Varieties. Mary Washington and Washington 500².

Seed or plants. Asparagus crowns can be started from seed or obtained from a nurseryman. Seed planted 3 inches apart in 3-foot rows in the early spring will produce crowns for the following year. Since seed germinates slowly, radish seed mixed with asparagus seed will mark the row, making earlier cultivation possible. Nursery grown 1-year-old crowns are superior to 2-year-old crowns that have too many buds for the quantity of roots.

²Highest of 23 varieties tested by D. P. Coyne, Department of Horticulture and Forestry, University of Nebraska, 1965-1966.

Planting and establishment. Plant crowns 12 to 18 inches apart in trenches spaced 3 to 5 feet apart. Trenches should be 6 inches deep in light sandy textured soil and 4 inches deep in heavier soils. Crowns are lightly covered at first but are gradually buried deeper as the shoots grow until the bed is level. No asparagus shoots should be cut during the first two years while the bed is being established.

With additional care in planting, the following modified procedure³ can result in earlier harvest each year and in higher yields than with the former practice more common to commercial production. Make rows by digging a trench 6 inches deep and 1 foot wide. Form a 3- to 4-inch mound in the center of the trench for its entire length. Place crowns on this mound with roots extending in all directions. Form the soil about the roots level with the surface. Earliness is associated with higher soil temperature at shallower depths in the early spring.

Harvesting and maintenance. Harvesting may begin the third season after crowns are planted. First shoots are normally expected to appear about mid April in Eastern Nebraska and by May 10 in the Panhandle. Shoots are best cut at the surface or broken off with a quick snapping action when 6 to 8 inches tall.

Cut only 4-5 weeks during the first year harvest to allow food manufactured in the leaves to be stored in the crown. During warm weather it may be necessary to harvest every 1-2 days. Harvesting may continue for 8-10 weeks in following years but should stop when the spear size begins to decline.

Work 5-10 pounds of complete fertilizer per 1000 square feet and Simazine (**Read label carefully**) for weed control into the bed after the last harvest. To catch snow and serve as a mulch, allow the tops to remain over winter.

Remove tops and make light application of fertilizer and Monuron (**Read label carefully**) for weed control before growth starts in the early spring. When well-rotted manure, compost, spoiled hay, grass clippings or other weed-free material is available, research⁴ shows that a mulch can extend the harvest period and result in higher quality spears. This is associated with lower soil temperature under organic mulch. However, production is not as early nor is the yield as great as in unmulched shallow plantings. A combination planting of unmulched and mulched asparagus will provide the longest harvest season.

³Based on a 10-year study, 1929-1938, by H. O. Werner, Department of Horticulture and Forestry, University of Nebraska.

⁴Based on 10-year study, 1929-1938, by H. O. Werner, University of Nebraska.

With proper care, an asparagus plantation should be productive for 20 or more years. When winter snow or spring rain has been light, asparagus in western Nebraska will benefit from a deep early spring irrigation.

RHUBARB

Rhubarb, native to southern Siberia, is resistant to cold, dry conditions. It is popular in pies and is frequently referred to as "pieplant." As pie or a sauce it is a refreshing substitute for fruit in the spring. It freezes well and is becoming increasingly popular as a frozen food. Rhubarb will grow well even though neglected. Three plants will supply enough stalk for the average sized family.

Varieties. Canada Red, Cherry Red, McDonald, Valentine, Sutton's Seedless and Honey Red.

Planting. Rhubarb is started from fleshy divisions of crowns containing at least one large bud obtained from the nurseryman. Protect the division from drying before planting. Plant in the early spring so roots may regenerate before the large leaves appear and desiccate the plant. Plant divisions of crowns in a 3-foot spacing 3 inches deep in furrows 3 feet apart. Press soil firmly around each division.

Harvesting. If the plants are small and weak, no leaf stalks should be harvested the first year. Harvest stalks during May and June then let plants grow except for removing seedstalks. Harvest only the largest and best leaf stalks.

Leaf stalks separate readily from the crown when grasped near the base and slightly pulled. Cut petiole or large leaf blade at its base so some of the leaf veins remain. Otherwise the stalk will bleed. Only the leaf stalk is suitable for human consumption. Leaf blades contain a high amount of soluble oxalic acid and may be poisonous. Stalks contain only small amounts as found in spinach, beet greens and chard.

Forcing rhubarb. Leaf stalks may be later forced in the basement during the winter months from crowns dug in the fall after top growth has stopped. Crowns benefit from cooler fall temperatures and may be left out of doors 4 to 6 weeks if taken to the basement before winter becomes too severe. During the forcing period in the basement, cover crowns in boxes or baskets with soil, place in the dark or diffused light and water once each week. Leaf blades do not develop on forced stalks. Crowns that have been forced should be discarded.

Divide and replant bed. When production of numerous small stalks indicates crowding (4-6 years from planting), they should be divided, leaving 3-4 buds, and replanted. It is best that this be done in the early spring or fall. The part of the crown removed may be used to enlarge the bed or be used to replace crowns used for forcing. If crowns are to be forced, plants should be left unharvested the prior season.

HORSERADISH

A small planting of horseradish is all that is needed in most gardens. Three to four plants will provide enough for family needs. Fresh clean roots grated into 4½ to 5% strength white wine or distilled vinegar provide a stimulating condiment to accompany meat and fish dishes. Use of cider vinegar will result in prepared horseradish turning brown.

Varieties. Horseradish seldom produces seed so no named varieties are available. Roots or crowns from selected plants are available from nurseries.

Planting. Plant horseradish from root cuttings or crowns 4-5 inches long that have been taken from the plant during harvest. Make the cutting square and the bottom portion slanted so the base may be properly oriented downward in planting. Roots may be placed vertically or slanted downward, but the top and bottom should not be reversed. Allow 5 to 7 square feet per plants.

Care. Compared to other vegetables, horseradish will tolerate considerable neglect. It may be left undisturbed for a long time.

However, to obtain large non-branching roots, remove small roots from the sides (but not the bottom) of the crown. This is best done when the leaves are first 8-10 inches long, then again later on in the season. Remove soil carefully to avoid damage to roots at the base of the crown. Rub off small side roots, leave only those at the bottom, then put the soil back in place.

Harvesting. Horseradish makes its greatest growth during late summer and early fall, so harvest is best delayed until October or early November. Smaller root cuttings taken at this time may be replanted or used to extend the bed. Store harvested roots which are not used under cool, humid conditions. Do not expose them to light or they will turn green.