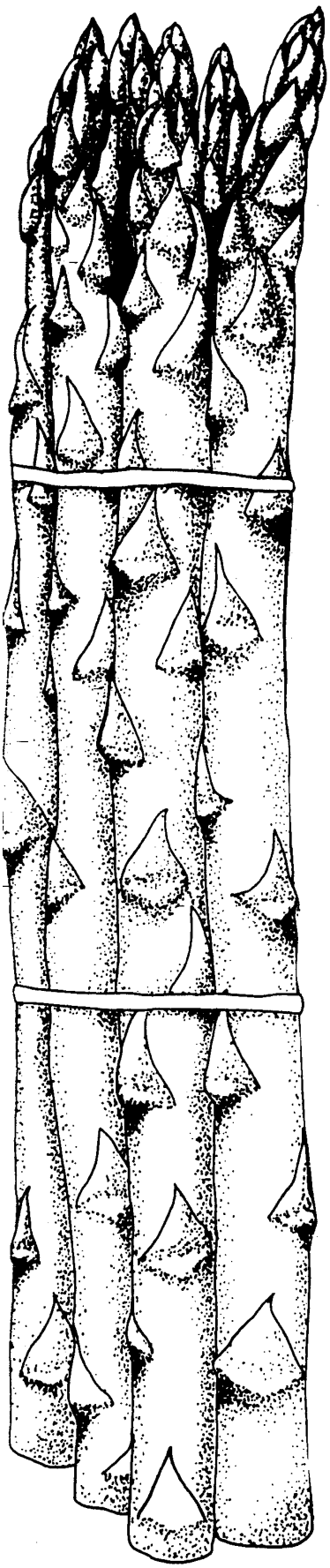

Growing ASPARAGUS in the Garden

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POINTS TO REMEMBER

- Asparagus is a perennial vegetable.
- Soil that is well prepared at planting time will increase the yield of the plant through its years of production.
- Asparagus is usually planted by using roots (also called crowns) from 1-year-old plants or seedling transplants that are 8 to 10 weeks old. Planting from roots makes harvesting possible 1 year earlier than if plants are established from seed.
- The edible asparagus stalks are actually shoots that develop into fernlike leaves during summer. The plant continues to develop new shoots until the warm weather, when ferny growth develops from unharvested shoots. Irrigate and fertilize the plants during the fern season, when the plant is manufacturing food that will be stored by the roots for the next year's shoots.
- The ferns will turn brown in the fall, indicating that they have transferred their manufactured food to the roots. Cut back the ferns after they turn brown to allow the plants to go through a period of winter dormancy. In the spring, new shoots will appear, starting the cycle again.

PLANTING CALENDAR

North Coast (Monterey County-north): January through March
South Coast (San Luis Obispo County-south): January through April
Imperial and Coachella Valleys: October through March
San Joaquin and Sacramento Valleys: January through March

VARIETIES

Plant varieties with a high degree of tolerance to the *Fusarium* disease, such as UC 157 hybrid.

SOIL PREPARATION AND FERTILIZATION

Asparagus planted in properly prepared soil will produce in the home garden for as long as 15 years with minimal care.

Work the soil a foot or more deep, mixing in large amounts of manure, compost, peat moss, or similar organic material.

Mix 15 to 20 pounds of 5-10-10 or 5-10-5 fertilizer per 100 feet of row at the bottom of the trench or row. (The numbers refer to the percentages of nitrogen, phosphorus, and potassium, respectively, in the fertilizer.) Cover the fertilizer with 1 or 2 inches of soil before placing the roots in the trench or row.

When harvest is over and the plants begin to fern out, apply 3 to 5 pounds of ammonium nitrate, **or** 4 to 6 pounds of ammonium sulfate (21-0-0) in a band to the side of the row. To apply fertilizer in a band, dig a furrow several inches deep along the side of the planting row, sprinkle the fertilizer evenly along the furrow, and cover with soil. Irrigate.

PLANTING

Do not let roots dry out before planting.

Planting methods vary according to climate and soil. For a warm climate and well-drained soil, dig trenches 8 inches deep and 12 inches wide, spread compost or manure in the

bottom of the trench, and cover with 1 or 2 inches of garden soil. Set roots or seedling transplants 18 inches apart in the row and cover them with 2 inches of soil. As the new shoots come up, gradually fill in the trench with additional soil.

To plant in rainy climates or in heavy soil where there is danger of the roots rotting, place the roots so that the tops are 1 or 2 inches below the surface of the well-prepared soil. In the fall, cover the roots with 2 more inches of soil. The following year, cover the surface with 1 or 2 more inches of soil. The roots will then be covered with 5 or 6 inches of soil. Ultimately, you will have a raised bed and may have to put boards along the rows or gently slope the soil to maintain plant coverage.

Asparagus roots spread widely, so plant them in rows 4 to 6 feet apart. If you have limited space, plant the roots in with other landscape plants. Asparagus is often used as a border plant next to the house.

Whatever planting method is used, irrigation, fertilization, and cut-back care remain the same.

IRRIGATION AND CULTIVATION

Asparagus should be irrigated mostly during the fern season, not the harvest season. However, supplemental irrigation during the harvest season may be necessary on sandy soils in dry areas.

During the first year, irrigation should closely follow planting. Asparagus should be well-irrigated throughout the first year.

Keep down weeds in the asparagus plantings. If you weed with a hoe, avoid wounding the root or the soon-to-emerge spears.

DLSEASES AND INSECTS

Fusarium wilt, the most common asparagus disease, can be minimized by planting tolerant varieties. Occasionally, asparagus rust is a problem.

Fusarium *Fusarium* species are prevalent throughout the state in asparagus plantations. Studies in progress indicate that the presence of *Fusarium* is more critical in younger plants than in older roots. It is believed that older roots become somewhat more tolerant to the disease.

The studies also indicate that extending the harvest period too long, thereby weakening the roots, contributes greatly to the plant's susceptibility to *Fusarium* species.

Rust Rust is more prevalent in coastal California than in drier inland areas. High humidity with warm temperatures is conducive to infestations of rust. This disease causes brown rusty spots to appear on spears and fern branches. When the infestation is severe, the entire plant appears to have a brown rusty color. (NOTE: By field experience and evaluation, UC 157 is *not* resistant to asparagus rust.)

In general, asparagus is relatively free from insect pests in California. However, there are a few:

Asparagus aphid Recently, the European asparagus aphid *(Brahycolus asparagi)* has been found on asparagus plants in California. In other states where this pest has increased to high population levels, spear production losses have been heavy. When feeding on the plant, the aphid injects a toxin that causes seedlings to shrivel and die. Infected older plants become dwarfed, prematurely release their spear buds, and may die. Chemical control of this insect is possible. Consult your local farm advisor for the most recent recommendation.

Asparagus beetle Although the asparagus beetle is found wherever asparagus is grown, it is usually not a serious pest in California. Some local infestations do occur, however, and control measures are required to prevent serious injury to the plantation. Usually the infestation and resulting injury are more prevalent on younger plantings than on older established plantings.

Cicada Some cicada infestations continue to occur, especially in the Coachella and Imperial valleys. Several studies of cicadas have been conducted, but neither the extent of their damage to asparagus nor adequate measures to control them have been determined, to date.

Garden centipede In the past, the garden centipede was a major pest on white asparagus. The importance of this pest has declined recently.

HARVEST, CARE, AND NUTRITIVE VALUE

Cut asparagus at ground level. An especially manufactured asparagus knife is helpful in cutting spears properly. The knife resembles a large "dandelion digger," and can also serve as a suitable harvesting tool. Asparagus should not be washed before storing it in the refrigerator, where it will keep for 3 to 4 weeks. For longer storage, consult a food freezing guide on proper preparation and conditions.

A 1/2-cup serving of asparagus spears contains only about 18 calories, and about one-fourth the adult recommended daily allowance (RDA) for vitamin C, according to 1974 National Research Council figures. Asparagus is also a significant source of vitamin A, iron, and other essential trace nutrients. White asparagus (blanched by mounding the soil around the growing spear) contains only about one-tenth the vitamin A value of green asparagus.

Additional information on asparagus:
"Asparagus Production in California," bulletin 1882
"Establishing the Commercial Asparagus Plantation," leaflet 21165
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