



# Asparagus in the home garden

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This publication offers basic instructions for successfully growing asparagus, from choosing plant materials to maintaining beds.

YARD AND GARDEN

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## ASPARAGUS (*ASPARAGUS OFFICINALIS*) IS A

perennial plant that will provide delicious and nutritious food for many years, if started correctly and with proper care of the bed properly. Asparagus is low in calories and a great source of vitamins C, A, and K, as well as folate.

Most cultivars of asparagus are hardy to USDA Zone 3, but some cultivars are hardy to Zone 2. Asparagus does best on sites with moist soil and full sun. Beds reach peak production in about eight years, when the yield of spears can reach five pounds per 100 square feet. A properly managed bed remains productive for 12 to 15 years; some over 30 years old are still fairly productive. Asparagus tolerates higher soil salinity than most other garden plants and can be planted in low, wet areas where other crops will not grow.

## Establishing a bed

### *Plant Materials*

Start by purchasing one- or two-year-old crowns, or divide and transplant old crowns, leaving one bud per division. An old clump can be divided into as many as 50 new plants. Direct seeding is possible, but not recommended due to variability of resulting seedlings. Planting newly purchased crowns is the most popular way to start an asparagus bed.

Be sure crowns for planting are dormant and have large, fleshy, whitish-tan roots without mold or rot.

### *Soil Preparation*

Because an asparagus bed will last many years, have the soil tested prior to preparation to determine existing nutrients and obtain fertilizer recommendations (see the MontGuide *Home Garden Soil Testing & Fertilizer Guidelines*, MT200705AG, for a list of soil testing laboratories).

Destroy all perennial weeds by mulching or cultivating. Then spade or till the soil deeply, working in 50 to 100 pounds of rotted organic matter or compost per 100 square feet (two to four inches on the bed).

Also apply fresh or highly nitrogenous manure (like poultry manure) at one fourth that rate ( $\frac{1}{2}$  to 1 inch). Like other plants, asparagus needs ample supplies of phosphorus, potassium, calcium and other minerals, as well as nitrogen.

## Planting

In spring, when soil temperatures have reached at least 50°F, use the trench method to plant or dig individual holes: Dig your trench 10 inches deep by 10 inches wide with 2-inch mounds 18 inches apart. Rehydrate crowns by soaking in tepid water for one or two hours, then spread the roots over the mounds. Leave 2½ to 3 feet between rows. Or, dig holes about 6 to 8 inches deep and 10 to 12 inches in diameter. Place a crown into each hole with the central bud pointing upward. For either method, fill with about three inches of topsoil, covering crowns.

As the tips of the young shoots extend above the soil, add additional soil to the hole. Finish filling the hole when the tips of the shoots extend above the ground level.

Apply fertilizer at planting according to the soil test results. Most Montana soils contain adequate calcium, but acid soils in the high mountain valleys and some sandy soils in other areas may need additional calcium. Follow soil test recommendations.



## Cultivars

Cultivars can be all- or predominantly male. Female stalks are thicker and produce seeds, while male stalks are more prolific and smaller in diameter. Rust-resistant varieties are recommended.

'Mary Washington' is the most time-proven cultivar. It yields well, survives under our conditions, and is rust resistant. Other cultivars for Montana include the disease resistant 'Jersey' series (including the all-male 'Knight' and 'Giant,' and the predominantly male 'Supreme'), the predominantly male 'Millennium' that is adapted to heavier soils, and 'Purple Passion' and 'Pacific Purple,' which are

beautiful cut on a slant and eaten raw in salads (they lose their purple color when cooked).

## Weed Control

No herbicide should be used in the home asparagus patch. Some weed control can be done early in the spring before spears come up by hoeing or by very shallow tilling. Later, after the cutting season, hoe or cultivate again to destroy broad-leaved weeds. Pull grassy weeds.

## Insect Control

**Asparagus beetle.** This insect resembles a ladybug but is considerably more elongate and can defoliate large areas in a short time. Handpick the insects or use an appropriate insecticide registered for their control.

**Cutworms.** Cutworms cut off underground shoots and feed on tips of new shoots, causing crooked spears. Remove injured spears. Inspect the soil around the injured plant and destroy the worm. Placing a ring of wood ashes around plants can deter cutworms, but don't let the ashes contact green plant tissue.

## Diseases

**Asparagus rust.** This disease is more likely to be found in areas with high rainfall and high humidity. Nevertheless, it does occur in Montana. Small, reddish-yellow spots appear on the main stem near the ground and on the slender branches of the stalks that grow up after the cutting season. Plant resistant cultivars such as 'Mary Washington' or the 'Jersey' series. Burn diseased material or otherwise remove from the garden. Do not compost.

## Harvesting

Don't harvest the first season, and harvest only lightly the second. The first full harvest begins in the third season after planting. Harvest time varies by season and area. In an early spring in warmer areas or at lower elevations, spears may be ready for harvest by late April. Gardeners in higher areas in a cool spring might not harvest spears before mid-June. Harvest can last up to July 1, but not in every area every year.

Spears are ready to cut when they are eight to 10 inches tall. Cutting too soon reduces yield; cutting too late increases spear toughness.

Remove the spears by snapping them off at the soil line or by cutting them with a sharp knife at or just below the soil line. Don't cut deep enough to damage the crown.

## Avoid Over-Harvest

No planting of asparagus will last long if all spears are removed every season. Cut spears for no more than the first six weeks. Stop harvesting when the spear diameter becomes noticeably smaller. Then let all remaining spears grow into tall plants ("ferns"). As they die back each year, the sugars produced by these ferns will be reabsorbed into the plant roots. Take care to not cut them until they are browning, to assure strong plants for the following year.

## Maintaining Established Beds

**Fertilizer.** Water and minerals used by the plants need replenishing. Unless the soil is high in organic matter, apply nitrogen early each spring at the rate of 1 to 2½ pounds of actual nitrogen per 1,000 square feet. Every three to five years, apply 2 to 3½ pounds of actual phosphate (P<sub>2</sub>O<sub>5</sub>) per 1,000 square feet and work it into the soil between hills. If the soil is deficient in potash, apply it at the same rate and time as the phosphate. Have soil tested if the asparagus patch appears to be declining.

**Mulching.** Apply an insulating mulch of straw or similar material to the bed after the soil freezes and remove it in early spring when danger of severe cold has passed. If not removed, it will keep the ground cool and delay emergence of the spears. This is especially important in cooler locations. Asparagus plants extend roots and crowns horizontally, making it difficult to maintain the plants in a straight line.

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