

Asparagus

Asparagus officinalis is a perennial flowering plant in the lily family. It has been cultivated for thousands of years and is native to most of Europe, northern Africa, and western Asia, and is now widely cultivated as a vegetable crop. The much-branched feathery foliage grows 40 to 60 inches tall after the spring harvest. It is usually dioecious, with male and female flowers on separate plants. The fruit is a small red berry 6 to 10 mm diameter. Only the young shoots of asparagus are eaten. The delicious, succulent spears we eat are actually shoots from the underground crown.

Planting:

Choose a site with good drainage and full sun. Asparagus does not tolerate saturated soil conditions. After rainfall, if water stands for an hour in the spot you have chosen, it is probably too wet for asparagus. The tall ferns of asparagus may shade other plants, so plant on the north side of other garden plants.

Prepare the bed as early as possible and enrich it with manure (in the fall), compost, leaf mold, or a combination of several of these materials. Mix in a balanced fertilizer at planting, following label instructions.

Asparagus can be planted as one-, two- or three-year crowns (vegetative propagation) in early spring. Plant crowns in rows 18" x 4' to 5', or in wide beds of three rows with plants 18 inches apart in all directions. Crowns should be raised slightly above the roots. Remove any rotted roots before planting. Spread the roots

out over a 2 inch mound of soil at the bottom of the trench and cover the crown completely with soil. The trench or furrow should not be covered completely (level with soil), but filled in gradually over the course of the growing season to help establish vigorous fern growth. Keep the bed well watered.

Here are some recommendations for planting a new asparagus bed:

- Select all-male hybrid varieties. They are more productive and disease-resistant than older varieties;
- Start asparagus either from seed or from crowns. Crowns are usually shipped and set out in March or April;
- Starting plants from seed requires an extra year before harvest. They are slow to germinate and require about 12 weeks to reach transplant size for setting out in June;
- Purchased roots and crowns should be full and slightly moist and not shriveled. Roots that are dry brown or soggy black indicate poor storage and will probably give poor results;
- Check crowns for signs of viable buds. Inspect plants for signs of insects or disease; and
- Once you have the plants, keep the roots moist (but not soaking wet) by misting

occasionally, and do not allow them to freeze or dry out. If it is necessary to keep the crowns for more than a few days, store them in a cool place or heel them in a trench of moist soil in a shaded location. Pack soil firmly against roots to eliminate air pockets.

Cultivation:

- **Weeding** - To avoid accidentally breaking off spears, weed each spring before the first shoots come up. During the production period, pull weeds rather than using a hoe. The plant's attractive, fern-like foliage makes a nice garden border, and some gardeners support the growing foliage with stakes and strings to keep it tidy. In high-wind areas plant the rows parallel to the prevailing winds so that the plants support each other to some extent. A hardy perennial, it should be mulched in October.
- **Watering** - Water weekly if there is no rain, especially during harvest period. It can tolerate some dry periods during summer.
- **Fertilizing** - Asparagus is a medium-heavy feeder and requires annual nitrogen in late winter or very early spring. You may also side-dress it after harvest. The plants also benefit from yearly top-dressing of compost.
- **Special directions for winter care** - In all asparagus plantings, cut the foliage down to 2-inch stubs after frost when the foliage yellows, before the red berries fall off. A 4 to 6 inch mulch of compost, manure, leaves, or other material added at this time will help control weeds and add organic matter and nutrients.

Harvesting:

Asparagus shoots or spears should not be harvested the first season after crowns are set. Begin harvesting lightly in years 2 (5 to 7 days of harvesting) and 3 (10 to 14 days of harvesting). From year 4 on the bed can be harvested for 8 to 10 weeks. After harvest allow the spears to grow. The fleshy root system needs to develop

and store food for subsequent seasons. Plants harvested too heavily too soon often become weak and spindly and the crowns may never recover. For asparagus started from seed, do not harvest at all the first two seasons, and harvest lightly the third. Approximate yield (per 10 foot row) is 3 to 4 pounds/year.

The 6 to 8 inch spears should be snapped off just below the soil surface. If the asparagus is allowed to get much taller, the bases of the spears will be tough and will have to be cut. Cutting too deeply can injure the crown buds, which produce the next spears. To blanch (whiten) the spears, mound soil around them or otherwise exclude light so they do not form chlorophyll in the stalks.

There are several ways to extend the harvest period:

- Plant at different depths (3", 4" to 6", 6" to 8", 8" to 10"). The shallower plantings will come up first and can be harvested while the deeper plantings are just forming. This method will result in a slightly longer harvest, but the plants may be less vigorous.
- Remove mulch from half of the asparagus bed and leave mulch on the other half. The exposed soils will warm up more quickly, and the crowns will sprout earlier. Black plastic also will speed up this process, but be careful not to encourage growth too early because a heavy frost can make spears inedible. Remove mulch from the second bed when spears begin to appear.
- Plant double the amount of asparagus needed for your household. Harvest half of the plants as you normally would in spring and early summer and allow the ferns to grow in the other half of the asparagus planting. Then, cut the ferns in the un-harvested plot in late July. The crowns will send up new spears, which can be harvested till late in the season. Keep plants well-watered. A light mulch will aid in spear emergence. When using this method, harvest the spring bed only in spring and the fall bed only in fall. Otherwise you risk weakening the crowns.

Preparation & Use:

Choose spears with compact heads; can be stored in a plastic bag in the refrigerator for several weeks.

Nutrition:

Good source of Vitamin K and C, folate, and phytonutrients – especially glutathione an important antioxidant.

Authors: Jon Traunfeld, Extension Specialist, Vegetables & Fruits; Jeanine Smetana and Peggy Yen, University of Maryland Extension Master Gardeners, March 2010

ASPARAGUS WITH MUSTARD VINAIGRETTE

INGREDIENTS		DIRECTIONS
2 lb	Asparagus	<ol style="list-style-type: none">1. Trim asparagus to remove the white, fibrous ends. Cut into 2-inch pieces on the diagonal.2. Bring a large pot of salted water to a rolling boil; add asparagus & cook until the spears are bright green & just tender, 4-5 minutes. Drain in a colander & rinse with cold water until chilled.3. To make vinaigrette, whisk together vinegar, mustard, parsley, tarragon, salt, pepper, onion & garlic powders until blended. Add the oil in a thin stream, whisking constantly. Season with addl. Salt & pepper, if needed.4. Toss chilled asparagus with vinaigrette or pass it separately on the side. Serve immediately.
2 T	White wine or cider vinegar	
2 t	Dijon mustard	
1 t	Flat leaf parsley	
½ t	Chopped tarragon leaves	
	Salt & pepper, as needed	
	Dash of onion powder	
	Dash of garlic powder	
¼ c	Extra-virgin olive oil	

Do you have a plant or insect pest question?

Visit us at extension.umd.edu/hgic

Authors: Jon Traunfeld, University of Maryland Extension Specialist, Jeanine Smetana and Peggy Yen, University of Maryland Extension Master Gardeners

This publication is a series of publications of the University of Maryland Extension and The Home and Garden Information Center. For more information on related publications and programs, <http://extension.umd.edu/hgic>. Please visit <http://extension.umd.edu/> to find out more about Extension programs in Maryland.

The University of Maryland. College of Agriculture and Natural Resources programs are open to all and will not discriminate against anyone because of race, age, sex, color, sexual orientation, physical or mental disability, religion, ancestry, or national origin, marital status, genetic information, or political affiliation, or gender identity and expression.