

# Vegetable Gardening

Pick an area that receives at least 6 hours of sun each day. Whether you are planting in an established garden or creating a whole new garden, it is a good idea to determine the texture and structure of your soil. Dig up the soil a bit; take a handful of soil, squeeze it in your palm and then open your hand. Clay soil will sit in your hand in a big lump. Sandy soil will not stick together even briefly. If the soil holds together for a few seconds and then crumbles apart, it's good loam. If you have clay or sandy soil, you should amend it with plenty of organic matter such as compost, peat moss (moisten first) and manure or a product such as Garden Magic Compost and Manure®, Posy Power™ or Schultz® Clay Soil Conditioner™. Next check your pH and correct it if necessary. Soil pH is the level of acidity or alkalinity in the soil. Soil pH can be raised by applying ground agricultural limestone. Lowering pH is achieved by adding sulphur. Most vegetables require a pH of 6.0 to 7.5. (Potatoes are one exception; they prefer a more acidic soil.) New beds will need to be stripped of sod first. Next, spread your amendments on the bed and cultivate either by hand or cultivator. Dig and turn the soil to a depth of 6-8". Break up large clods and rake out weeds and rocks.

Following is a planting chart of common vegetables providing all the information you need, whether growing from seed or transplants.

Vegetable	Depth to plant seed	No. of seeds to sow per foot	Distance between plants	Distance between rows	No. of days to germination	Needs cool soil	Tolerates cool soil	Needs warm soil	Weeks to grow to transplant size	Days to maturity	Remarks
Asparagus				7-21	x		12-14*	3 yrs			Sow in spring & transplant the following spring
Bean, Snap bush	6-8			6-14	x			45-65			Make sequence plantings
Beans, Snap pole	4-6			6-14		x		60-70			Long bearing season if kept picked
Beans, Lima bus	5-8			7-12		x		60-80			Needs warmer soil than snap beans
Beans, Lima pole	4-5			7-12		x		85-90			
Beet	10-15			7-10	x			55-60			Thin out extra plants & use for greens
Black-eyed /cowpea	5-8			7-10		x		65-80			
Broccoli	10-15			3-10	x		5-7*	60-80T			80-100 days from seed
Brussels Sprouts	10-15			3-10	x		4-6*	80-90T			100-110 days from seed
Cabbage	8-10			4-10	x		5-7*	65-95T			Use thinnings for transplants. 90-150 days from seed
Carrot	15-20			10-17	x			60-80			
Cauliflower	1/2	8-10		4-10	x		5-7*	55-65T			70-120 days from seed
Chard, Swiss	6-10			7-10	x			55-65			Use thinnings for early greens
Collards	10-12			4-10	x		4-6*	65-85T			Direct seed for a fall crop
Corn, sweet	4-6			6-10		x		60-90			Make successive plantings
Cucumber	3-5			6-10		x	4	55-65			In limited space, train on trellis or pole
Eggplant	8-12			7-14	x			70-90			
Fennel, Florence	8-12			6-17	x			120			
Garlic				6-10	x			90, sets			See other side for more information
Horseradish	Div.				x			6-8mos.			
Kale	8-12			3-10	x		4-6	55-80			Direct seed for fall crop
Kohlrabi	8-12			3-19	x		4-6	60-70			
Leek	8-12			7-12	x		10-12*	80-90T			130-150 days from seed
Lettuce, head	4-8			4-10	x		3-5*	55-80			Keep seeds moist
Lettuce, leaf	8-12			4-10	x		3-5	45-60			Keep seeds moist
Mustard	8-10			3-10	x			40-60			Use early to thin
Okra	6-8			7-14		x	4-6	50-60			
Onion, sets					x			95-120			Green onions 50-60 days
Onion, plants					x		8	95-120T			
Onion, seed	10-15			7-12	x			100-165			
Pea	6-7			6-15	x			65-85			Train climbing varieties on trellis; plant on both sides
Pepper	6-8			10-20		x	6-8*	60-80T			
Potato	1			8-16	x			90-105			Grown from seed potatoes; small piece with at least 1 eye
Pumpkin	2			6-10		x		70-110			Give them plenty of room
Radish	14-16			3-10	x			20-50			Do best in early spring or late fall weather
Rhubarb	Crown				x		1 year	2years			Matures second season
Shallot					x			60-75			Harvest when tops turn brown and die down
Spinach	10-12			6-14	x			40-65			Harvest before plant starts to bolt (form flowers & set seed)
Squash, summer	4-6			3-12		x	3-4	50-60			Vining types can be trained or pruned
Squash, winter	1-2			6-10		x	3-4	85-120			
Tomato				6-14		x	5-7*	55-90T			Early var. 55-60. Mid 65-75. Late 80-100.
Turnip	14-16			3-10	x			45-60			Thin early for greens

\* Transplants preferred over seed. T = Number of days from setting out transplants; all others are from seeding.

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We are frequently asked about how to plant, grow and harvest the following vegetables. We hope this guide will help you succeed in your efforts.

**Asparagus** is a long lived perennial vegetable crop that can be productive for 15 or more years if properly cared for. It grows in almost any soil as long as it has good drainage. Asparagus prefers a pH of 6.5 to 7.5 and will not do well if the pH is less than 6.0. Either have your soil tested or add 20 lbs. of a 10-20-10 or similar analysis fertilizer per 1,000 square feet and till to a depth of 6 inches.

You will have an easier time if you buy one year old, disease free crowns rather than trying to grow asparagus from seed. In Ohio, asparagus can be planted from mid-April to late May after the soil has warmed up to about 50°F. Plant the asparagus at the west or north side of the garden so that it won't shade the other vegetables. Dig a furrow no deeper than 5 or 6 inches. Apply about 1 lb. of 0-46-0 (triple superphosphate) or 2 lbs. of 0-20-0 (superphosphate) fertilizer per 50 feet of row in the bottom of the furrow before planting.

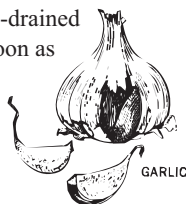
Toss the crowns into the furrow on top of the fertilizer, the plants will grow no matter how they land. Space the crowns 1 1/2 feet apart in the row. If planting more than one row, space them 5 feet apart from centers. Backfill the furrow to its original soil level, do not compact. Spears should emerge within one week. Do not harvest the asparagus during the planting year. Asparagus is very drought tolerant and can usually grow without supplemental watering because of its deep root system. It may be necessary to water when planting or afterwards if rainfall is insufficient.

Harvest the year after planting by snapping 7 to 9 inch spears with tight tips. When harvesting, the asparagus patch should be picked clean to prevent ferning out and attracting asparagus beetles. Harvesting can last up to 3 weeks the first year; the second year harvest can increase to about 4 to 6 weeks. The third year and thereafter, harvesting can continue for 6 to 8 weeks.



**Garlic** grows best in rich, loose, sandy, well-drained soil. Plant individual cloves in fall or early spring as soon as the soil is workable. Set out 1 inch deep and 2 to 4 inches apart in rows 1 to 1 1/2 feet apart with the pointed end up. If you plant them in the fall, mulch the bed (after the ground freezes the first time) to prevent the cloves from heaving and breaking their roots. Remove mulch in spring. Use a low nitrogen fertilizer at time of planting and when tops are 6 inches high. Place the fertilizer 4-6" on either side of the cloves to prevent "burning". If planting stiffneck garlic, watch for a seed stalk to come up (you'll recognize it by the curl it forms). This should be snipped off to insure proper bulb development. The flowers and bulblets from this stalk are edible and are delicious sautéed or steamed.

Harvest garlic when most of the tops turn yellow and dry but there are still 3 or 4 green leaves left on each plant. Waiting too much longer increases the occurrence of split skins. Dig the bulbs up carefully and allow them to dry in the sun for a few days, then braid the tops into strings or tie in bunches and hang in a cool, dry place. Allow bulbs to dry for about 2 weeks. Then trim the tops and roots to within an inch of the bulbs. Store in a cool, dry place with good ventilation. Garlic will keep for 6 to 8 months.



**Onions** grow best in a loose, well-drained soil of high fertility and plenty of organic matter. Soil pH should be between 6.2 and 6.8 for best results. The common onion (*Allium cepa*) can be grown from either seed, plants or sets for use as both green onions and dry bulbs. Home gardeners usually have more success with sets. Any standard onion can be used for green onions within 30 days if grown from plants or sets; or 40 to 50 days if grown from seed.

Plant in early spring as soon as the soil can be worked. Onion seed is sown 1/2" deep while sets are planted 1 to 2" deep and 3" apart. Rows should be 12-18" or more apart, depending on your method of cultivation. After plants are well established, a mulch will conserve soil moisture, prevent soil compaction and suppress weed growth. Harvest dry bulb onions when the tops have fallen over and dried. On sunny, breezy days, onions may be pulled and left in the garden to dry for a day or two before they are taken to a curing area. Cure onions by placing them in a warm, well-ventilated area until the necks are thoroughly dry (about two weeks). Store in a cool, moderately dry area in ventilated containers.



**Potatoes** can be grown successfully in Ohio gardens with a little extra care and attention than most other vegetables. A well-drained, fine sandy loam soil, high in organic matter is preferred. Because scab disease may be a problem in alkaline or "sweet" soils, the pH should be 5.0 to 5.5. Liberal amounts of fertilizers are required for high yields and should be placed in continuous bands 2 to 3" to each side and slightly below the seed piece. Always use certified disease-free seed (modified stem tissue, known as a tuber, with at least one eye or growing sprout).

B-size seed (small tubers weighing 1 to 1 1/2 oz.) should not be cut before planting. If 4 to 6 oz. or larger tubers are used, cut them so that each piece is block shaped, weighs about 1 1/2 oz. and contains at least one good eye or bud. Plant the seed in trenches 3 1/2 to 4 1/2" deep and 9-12" apart and cover with an inch or two of soil. Rows should be 28-36" apart. Nine to 12 pounds of seed will be needed for each 100 feet of row, which should yield 150-175 pounds of usable potatoes.

Control weeds by shallow and frequent cultivation. When plants are 6-8" tall, begin to mound soil around bases of plants to start forming a hill. By the time the plants are 15-18" tall, the ridge should be 4-5" high. "hilling up" is necessary to prevent greening of shallow tubers. To control pests and foliar diseases, a spraying or dusting program should begin as soon as the plants emerge and continue according to the product label until late summer or a few weeks before harvest.

For highest yields and best storage, wait two weeks after vines have naturally died down to harvest your potatoes. If harvesting in temperatures above 80°F, potatoes should be picked up immediately and put in a dark place. To store potatoes for several months, the tubers should be cured in a dark place at 60-65°F and 85% or higher humidity for 10 days. After they are cured, keep them in a cool (40-45°F), dark place with high humidity.

**Rhubarb** is a hardy perennial grown for its edible leafstalks. Never eat the leaves as they contain poisonous amounts of oxalic acid. Plant rhubarb in early spring as soon as the ground can be worked. Start from root divisions with 1-3 buds or eyes. Plant in a trench 12-18" deep and filled with a rich soil mix to within 2-3" of the top. Set crowns about 2" below the soil surface. Do not allow them to dry out before planting. Rhubarb needs about 3 feet of space between plants; 3-4 plants will be plenty for the average family. It is a good idea to locate the plants out of the way of regular gardening operations.

Allow all stalks to grow and do not harvest the first year after planting. The second year, harvest for only 1 or 2 weeks. After that, you can harvest for 8 weeks or more, but do not remove more than half the stalks at any one time. Divide rhubarb every 4 years or when the stalks start to become thin. Young tender stalks do not need to be peeled, but older stalks may need to be peeled and de-strung before cooking.