How to Grow

RASPBERRIES

From your friends at

NOURSE FARMS

BEFORE YOU START

It is essential that, as you plan where you'll be planting your raspberries, you avoid soils where previous crops have included strawberries, brambles, potatoes, tomatoes, eggplants, or peppers. These crops may harbor soil pathogens, which will affect the health and performance of your new plants. Soil that has previously grown these crops should be crop-rotated for five to eight years with a non-Verticillium-susceptible crop, such as oat or wheat.

It would be of great benefit to have your Agricultural Extension Service perform a crop-specific soil test 8-12 months before your planned planting date. Identifying early, precisely what nutrients or amendments are needed and how much, allows optimized application. Some amendments need time to take effect, and some are ineffective when applied to the soil surface.

SPACING

Red and Yellow Raspberries:

- Eighteen to twenty-four inches (18-24”) in row
- Eight to twelve feet (8-12") between rows in field production, depending on the machinery
- Recommended seven to eight feet (7-8') between rows in tunnel production

Black and Purple Raspberries:

- Twenty to twenty-four inches (20-24") in row, except Niwot, which should be planted thirty-six to forty-eight inches (36-48") apart
- Recommended eight to twelve feet (8-12') between rows in field production, depending on the machinery
- Recommended seven to eight feet (7-8') between rows in tunnel production

CHOOSING THE RIGHT RASPBERRY TYPE FOR YOUR OPERATION

Choosing the right raspberry plant type can shape your season, labor needs, and profitability. Whether you're starting a new field, expanding a U-pick, or fine-tuning your harvest window, the plant form matters. At Nourse Farms, we offer three options—bare-root, plug, and long cane—each with unique advantages. Here's how they compare.

Bare-root raspberry plants
Bare-root plants suit growers building perennial systems with lower upfront cost.

Pros:
- Cost-Efficient: Most cost-effective—ideal for large plantings or tight budgets.
- Broad Variety Availability: Broad range of floricane and primocane.
- Long-Term Investment: Best for in-ground systems yielding over multiple seasons.

Cons:
- Slower to Establish: Needs a full season (or more) to produce marketable fruit.
- Higher Early Labor Needs: Cane management, weed control, and pest pressure start immediately.
- Weather Sensitive: Establishment depends on early soil and weather conditions.

Tray raspberry plants
Raspberry tray plants are best for growers wanting faster establishment, including those using high tunnels.

Pros:
- Easier Planting: Simple transplanting and minimal root disturbance.
- Strong Early Growth: Well-developed roots speed establishment.
- Flexible Timing: More transplanting options, especially in tunnels or staggered fields.
- Ideal for soilless production systems.

Cons:
- Moderate Cost: Priced between bare-root and long cane.
- Needs Immediate Care: Plugs need immediate water and nutrients; delays risk poor establishment.

Long cane raspberry plants
Long cane raspberry plants are best for growers needing quick turnaround, precise timing, or labor efficiency—especially for tunnels, U-pick farms, or retail-focused operations.

Pros:

- Fast to Fruit: Ready to produce within 90 days—ideal for quick returns.
- Uniform and Predictable: Consistent size and vigor aid harvest planning.
- Labor Savings: Less weeding, spraying, and pruning early on.
- Efficient Space Use: Densely planted in tunnels or substrate systems for high yield per square foot.
- Creative Solution: Long canes offer a solution to poor soil drainage.

Cons:

- Higher Initial Cost: Reflects advanced development and production.
- Shorter Lifecycle: Suited for annual or biennial models, not long-term fields.

PLANTING BARE ROOT RASPBERRIES

Planting methods are similar for both field and tunnel production; however, growing in tunnels allows you to plant significantly earlier in the spring than in the field. If the soil is not well-drained, consider raising the soil height in the planting rows or planting elsewhere.

Plant as soon as possible in the spring, after your soil has warmed to 50°F. Planting too early, in cool, damp soil, can delay development or cause roots to rot. Do not fertilize at planting. Planting at the correct depth is important. Your planting rows should be measured and maintained at no more than a twelve to eighteen inches (12-18") width.

When planting dormant, bare-root raspberry plants, use a hoe to make a two-inch deep trench the length of the bed. Lay the roots horizontally along the trench, two inches (2") deep. You may need to position some canes deeper than two inches (2") so that all roots on the cane are covered, still laying the length of the roots parallel to the soil surface at the two-inch (2") depth. Cover them immediately. The fine root system should not be allowed to dry out during the planting process, which can happen very quickly on a warm day.

CAUTION: If set too deeply, they will not easily send up new canes from the root as they must. Apply four (4) inches of clean, weed-free straw mulch within the row immediately after planting to improve plant vigor and survival. Do not mulch beyond planting year, as it can impede new cane growth and cause root and crown rot.

TIPS

- We suggest soaking your raspberry plants for one to two (1-2) hours before planting, keeping the plants in the pail of water as you plant. Do not soak plants for more than two (2) hours, including during the planting time. Agri-gel and BioSafe Disease Control can be added to the water. The use of a product such as Agri-gel will help support the plants during short dry spells.
- Take care while planting to keep roots at a depth of two inches (2") to allow easy sucker development from the roots.

PLANTING RASPBERRY TRAY PLANTS

Cover the soil plug with ½"–1" of soil, following spacing instructions above. Don't fertilize at or near planting time. Ideally, have your Agricultural Extension Service perform nutrient and pH testing one year prior to planting, indicating your intended crop. Test results will specify what nutrients are needed and how to adjust the soil to the proper the pH. It is much less effective to top-dress pH amendments and some nutrients. If testing is not done the season before, you may incorporate ½ lb.– ¾lb. of 10-10-10 per 100 sq. ft. at least two to three (2–3) weeks before planting, or wait until plants are well established and then side-dress with 10-10-10 to encourage vigorous growth.

Irrigate well after planting. Maintain good moisture levels until the plants are well established or for four to six weeks.

PLANTING BLACK AND PURPLE RASPBERRY PLUG PLANTS

Cover the top of the plug with ½"–1" of soil. Don't fertilize at or near planting time. Ideally, have your Agricultural Extension Service perform nutrient and pH testing one year prior to planting, indicating your intended crop. Test results will specify what nutrients are needed and how to adjust the soil to the proper the pH. It is much less effective to top-dress pH amendments and some nutrients. If testing is not done the season before, you may incorporate ½ lb.– ¾lb. of 10-10-10 per 100 sq. ft. at least two to three (2–3) weeks before planting, or wait until plants are well established and then side-dress with 10-10-10 to encourage vigorous growth.
Irrigate well after planting. Maintain good moisture levels until the plants are well established or for four to six weeks.

CARING FOR RASPBERRY PLANTS

PLANTING YEAR

New growth may not appear for five to six (5-6) weeks. The cane portion of the plant may never leaf out; expect most, if not all, new growth to come from the roots. If you want to check for root development after six to seven (6-7) weeks, dig very gently two to three inches (2-3") away from the cane. Be careful not to damage delicate new sprouts that have not yet broken the soil surface. If the plants are not leafing out or sprouting new growth from the roots after seven to eight (8) weeks, call us.

IRRIGATION

Water thoroughly after planting and maintain good soil moisture until plants are well established. The plants should then receive one to two (1–2") inches of rainfall, or equivalent, each week throughout the season. Do not water every day; one to three times per week is sufficient. We strongly encourage the use of drip irrigation as it conserves water, adds water directly to the root zone, and does not wet the plants and fruit. Check soil moisture regularly to prevent over or underwatering. Sandy soil may require more frequent irrigation. Plants need more water during hot, sunny periods and when flowering and developing fruit.

TIPS

- We suggest soaking your raspberry plants for up to one to two (1–2) hours prior to planting, keeping the plants in the mail of water as you plant. Agri-gel and BioSafe Disease Control can be added to the water. Do not soak plants more than two (2) hours.
- Take care while planting to keep roots at two inches (2") depth to allow easy sucker development from the roots.
- Use of a product such as Agri-gel will help support the plants through short dry spells.
- Do not mulch beyond planting year, as it can impede new cane growth and cause root and crown rot.

CARING FOR RASPBERRY PLANTS

PLANTING YEAR

New growth may not appear for five to six (5–6) weeks. The cane portion of the plant may never lead out; expect most, if not all new growth to come from the roots. If you want to check for root development after six to seven (6–7) weeks, dig very gently two to three inches (2–3") away from the cane. Be careful not to damage delicate new sprouts that have not yet broken the soil surface. If the plants are not leafing out or sprouting new growth from the roots after seven to eight (8) weeks, call us at 1-877-NFBERRY (632-3779).

IRRIGATION

Water thoroughly after planting and maintain good soil moisture until plants are well established. The plants should then receive one to two inches of rainfall or the equivalent each week throughout the season. Do not water every day – one to three (1–3) times per week is sufficient.

HIGH TUNNEL PRODUCTION

High tunnels are plastic, polyethylene, or fabric-covered hoop structures that allow farmers to control growing conditions, optimize plant health, and increase yields.

High tunnels create a microclimate that helps regulate temperature and humidity, thereby fostering a favorable environment for plant growth. High tunnels protect plants from harsh elements, such as frost and strong winds, providing crop protection from such occurrences. Due to the exclusion of rainfall, disease prevalence from fungal pathogens, such as Botrytis cinerea, is lower in raspberries grown in high tunnels compared to those grown in open fields. Additionally, high tunnels lessen stress from birds that may damage plants.

High tunnels allow growers to extend growing and marketing seasons. High tunnels enable planting earlier in the spring and harvesting later into the fall, resulting in a market advantage.

Note: We strongly recommend removing plastic from high tunnels following fall harvest to reduce winter damage.

MULCHING/WEED CONTROL

Mulch is a protective layer of material applied on top of the soil. Mulching can bring numerous benefits to your plantings, including providing micronutrients that enhance topsoil fertility, increasing organic matter, and improving soil water-holding capacity by reducing evaporation and moderating soil temperature. Additionally, mulching increases the number of fine roots.

We recommend lightly mulching with weed-free straw during establishment to help control weeds and retain moisture. Leaves or grass clippings are not recommended, as they can mat, smother plants, and harbor pests. Do not apply a deep layer of mulch, as it will impede the growth of new canes, which need to develop every year. Do not mulch brambles beyond the first year.

Regular manual weeding will be necessary. Weeds and crops compete for the same resources, including sunlight, water, and nutrients. When weeds deprive a crop of these resources, the crop yield is negatively impacted. Some weeds can also carry crop pathogens or serve as hosts for damaging insects.

FERTILIZATION

Do not fertilize when planting. You may thoroughly incorporate a light amount of fertilizer at least two (2) weeks before planting or wait until new transplants are well established. For optimum growth and production, apply ½ lb. - ¾ lb. of 10-10-10 fertilizer per 100 sq. ft. each spring and an additional one (1) lb. of 10-10-10 fertilizer per 100 sq. ft. in mid-summer.

Larger growers should use 500 pounds of 10-10-10 per acre or make applications according to soil test results. Additional applications may be necessary, depending on weather and/or leaching conditions.
The most beneficial practice is to have the soil tested annually for pH and approximate nutrient availability and add amendments accordingly. Analyzing plant tissue is also very helpful, as it measures the amount of nutrients in the plants.

Do not fertilize after July 1, as late fertilization can generate tender new growth that will be more susceptible to winter injury.

How to Grow

RASPBERRIES

From your friends at

NOURSE FARMS

PRUNING

Pruning is a crucial part of the growing process that helps your raspberry plants prosper and maximizes productivity. Raspberry plant roots live for many years; however, the canes that grow from the roots live only up to two years. Removing old and weak growth encourages the development of strong cane and larger berries. Try to prune when plants are dry to help reduce disease risk.

Primocane-bearing Red and Yellow Raspberries

For fall production only, prune or mow all the canes to the ground in late winter/early spring; this is especially beneficial in colder areas. Be sure to cut the canes as closely as possible to the soil surface, leaving little or no stub above the ground that could generate laterals (branches). New, strong canes that emerge in the spring will bear an abundant fall crop. Cane density should be limited to no more than six to eight (6-8) canes per foot of row length and row width should be limited to twelve to eighteen inches 12-18".

To develop two crops, prune primocanes two nodes below fall fruit and reduce cane density to 4-6 canes per linear foot. When allowed to stand through winter, a second crop yields early the following summer, lower on those over-wintered canes. After harvesting the summer crop, cut the over-wintered canes to the ground, leaving the new primocanes to produce the fall crop.

Floricane-Bearing Red Raspberries

These varieties carry one crop of berries during the summer on over-wintered canes (floricanes). For the best yields, immediately after harvest, cut the canes that carried fruit as close to the ground as possible. Thin remaining new growth (primocanes) to six to eight (6-8) strong, healthy canes per running foot of row. In late fall, cut the canes down to four and a half to five feet (4.5-5') to manage the picking height. Maintain a 12"-18" row width.

These varieties carry one crop of berries during the summer on over-wintered canes (floricanes). For the best yields, immediately after harvest, cut the canes that carried fruit as close to the ground as possible. Thin remaining new growth (primocanes) to six to eight (6-8) strong, healthy canes per running foot of row. In late fall, cut the canes down to four and a half to five feet (4.5-5') to manage the picking height. Maintain a 12”-18” row width. Some varieties may generate a few berries on the tips of their first-year canes. Cut the flowering part off after frost, or cut the canes down to a manageable picking height of about five feet (5’) and allow the rest of the primocane to overwinter.

Tip: We recommend removing the bottom 12-18" of growth from floricanes in late spring and primocanes in midsummer.

Primocane-Bearing (Fall-Bearing/Everbearing) Black Raspberries

Primocanes require pruning during the growing season, called tipping. Tipping makes plant management easier and increases yield potential. When new primocanes reach 3 feet, tip or snip off the top one inch (1”) to direct growth into lateral branches. This process increases the places where the plant can produce fruit.
Pruning later in the season decreases the plant's time to develop branches. Failure to prune the primocanes will result in earlier ripening, but the canes will become tall and arching, and develop fewer berries.

Floricane-Bearing (Summer-Bearing) Black and Purple Raspberries

Black and purple raspberries break buds from their crown or base and send out few, if any, suckers. Prune plants to 4-6 canes per hill.

Primocanes require pruning during the growing season, called tipping. Tipping makes plant management easier and increases yield potential. In midsummer (typically through July and August), when the first-year canes reach 5-6 feet in height, tip the first-year canes by pinching off the top 2 inches. This practice encourages fruiting lateral branches to break from the main cane and keeps plant height in check.

In late fall, prune laterals to a height of 6 to 8 inches. Pinching back laterals can help increase berry size and increase winter hardiness.

How to Grow

RASPBERRIES

From your friends at

NOURSE FARMS

PRUNING REMINDER:

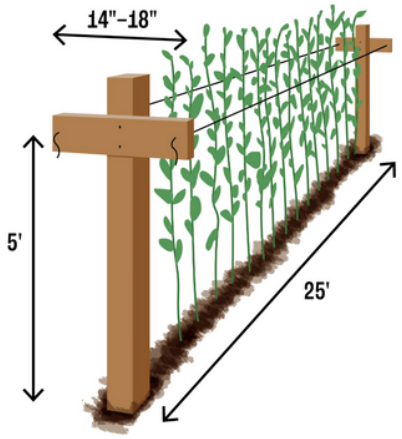
Cut old canes as close to the ground as possible to force new buds to break below the soil surface. Cane stubs above ground can be entry sites for insects and disease pathogens.

TRELLISING RASPBERRIES

Trellising brambles is one of the most important cultural practices, and we recommend trellising all brambles. A trellis keeps canes upright and fruit off the ground, making picking far easier, reducing wind damage, and maintaining good aeration throughout the planting, which helps control disease and Spotted Wing Drosophila pressure.

T-TRELLIS

For red and yellow raspberries, we have been successful using a T-trellis, which supports two wires, 12 inches apart, at 3 to 5 feet above the ground.



To construct a T-Trellis, install 6-8 feet long metal fence posts about 1 to 2 feet into the soil. Bolt a 12-18-inch piece of angle iron to create the horizontal crossbars. You may also use wooden posts and crossbars. Drill a hole in each end of the angle iron to secure the twine or monofilament trellis wire. Create the T by through-bolting 12-18-inch two-by-fours. Posts should be spaced 15-25 feet apart along the row.

How to Grow

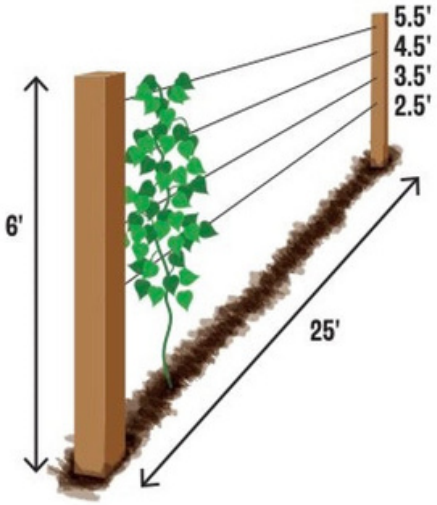
RASPBERRIES

From your friends at

NOURSE FARMS

3- OR 4-WIRE TRELLIS

For black and purple raspberries, we have been successful using a 3- or 4-wire trellis, which supports three or four wires, one inch apart. To construct a 3- or 4-wire trellis, install an 8-10-foot-long metal fence post about 2.5-3 feet deep. Run galvanized high-tensile wire along the row at the following heights: 2.5', 3.5', 4.5', and 5.5'. Attach the main canes to the wire with a clip or a slightly loose twist tie. Posts should be spaced 15-25 feet apart along the row.



HARVESTING AND STORAGE

Harvest raspberries daily, if possible. We recommend picking fruits in the morning when berries are firm and before temperatures warm. Avoid harvesting fruit in the rain or when the fruit is wet. When picking and handling the fruit, take care not to bruise or crush the fruit. As soon as possible after harvest, cool the fruit. The ideal cooler temperature is between 33°F and 35°F with 90% to 95% relative humidity.

To be marketable, raspberries must be firm, free of insects, and well-colored. Growers must understand their market and determine if fruit size or extended shelf life is more valuable to their customers.

Research indicates that raspberries can be harvested slightly unripe (pink or light red stage) for fresh market sales or at peak ripeness (full redness) for immediate sales at pick-your-own or roadside operations. Fruit that is picked pink is significantly firmer and less watery than berries picked at the normal commercial fresh market ripe stage. After approximately six (6) days of storage, the fruits harvested slightly unripe attain full color, acidity, and flavor. However, research shows that fruit picked at the pink or light red stage may be 4% to 20% smaller (depending on relative ripeness at harvest and variety) than fruit picked at the normal commercial fresh market ripe stage.