GENERAL PRE-PLANTING CARE: Store your plant in a cool, shaded location in its original packaging. Keep your plant out of direct sunlight, wind, and extreme temperatures. Keep the roots moist - NEVER LET THEM DRY OUT!

## RASPBERRIES \& BLACKBERRIES



## PARTS OF YOUR PLANT

Primocane and floricane describe the stage of growth a raspberry or blackberry cane or branch is in. Most plant varieties produce fruit only on floricanes, but some varieties have been grown to also produce fruit at the primocane stage.

Primocanes are the green, fleshy stalks that grow each year. During the first year of growth, the new primocane develops brown bark, then goes through a dormant or rest period in winter and becomes a floricane during the second growing season. Harvest fruit from primocane-bearing varieties in mid to late summer. Floricanes are woody and brown; they are the second-year growth. The floricane produces fruit in early to mid summer and then dies.

## CHOOSING A LOCATION

Grow raspberries and blackberries in a part of the garden that has good air circulation, good drainage, and full sunlight. The plants will grow in part shade, but will not produce as much fruit. Good air movement helps leaves dry faster, which reduces disease problems. Standing water will increase the likelihood of disease problems and death. Raspberry canes are particularly sensitive to drying out, so avoid planting in a very windy spot. Planting berries in a row along a fence or wall makes them easy to manage and, best of all, easy to pick!

Any rich, well-drained soil is good for growing both raspberries and blackberries. A few inches of compost mixed into the soil prior to planting will create a high-quality planting site; a good rate is about $31 / 2$ cubic feet of compost per 100 square feet. Till the soil well before planting. Irrigation will be needed on a sandy soil, and even on more moisture-retentive soils during dry spells.

## PLANTING

1. Dig a hole based on the size of the root mass. You want to make sure the hole is large enough to avoid overcrowding.
2. Trim off any roots that are particularly long or unruly. Place in the hole, positioning the plant so that the uppermost part of its roots are level with the ground. The roots should be spread out in the hole; try to keep the roots separated and avoid wrapping them around each other.
3. Fill in the hole with a mixture of the original soil and compost. Tamp down lightly to ensure that no air pockets remain.
4. Water thoroughly. Once the water has soaked in, add mulch for weed control and water retention.
5. Repeat as needed for multiple plants. Red and yellow raspberry plants should be spaced every $2-3$ feet. Black and purple raspberry plants should be spaced every 4 feet. Blackberry plants should be spaced every 5-6 feet.
6. For blackberries: prune canes back to 2 inches for best growth.

## CONTINUED CARE

Berries need lots of water (1-1.5 inches per week )from spring until after harvest. Because the root system is in the top two feet of soil, watering regularly is better than an occasional deep soaking. They also grow vigorously and need annual pruning to keep the plants looking good, increase productivity, and reduce the chance of diseases. Allow new primocanes of red and yellow raspberries to spread along the row or in between plants but not wider than 12 inches. Wider than that and the plants will be difficult to manage and harvest, and more prone to fungal diseases because of slow drying conditions. Prune each main blackberry cane back to $3-4$ feet each spring.

All types of raspberries require support to prevent the canes from wind damage, bending over, cracking, and getting out of control. A trellis can be as simple as a couple of posts and twine for a row of plants, or a decorative obelisk, teepee or arbor for individual or mass plantings.

## QUICK FACTS

- Blueberries need full sun.
- Blueberries require acidic soil.
- Plant two or more varieties for successful pollination.
- Plants won't have much fruit the first 2-3 years.
- Harvest is bigger after 5 years.
- Blueberry plants grow slowly and reach full size in 8-10 years.
- Each winter, prune out old, weak and dead wood.


## CHOOSING A LOCATION

Grow blueberries in a part of the garden that has good air circulation, good drainage, and full sunlight. Avoid areas surrounded by trees, as trees provide too much shade, compete with plants for water and nutrients, and interfere with air movement around plants. Poor air movement increases danger of spring frost iniury to blossoms and favors disease development. Blueberry plants require acidic soil (pH 4.0 to 5.0 )that is well-drained, loose and high in organic matter. Most garden soils in Michigan have higher pH and must be amended.


Above: Leaf discoloration caused by high soil pH

## AMENDING SOIL

Acidic soil is vital to your plant's growth. If pH is too high, the growth of the plant will be slow, leaves discolor, and the plant may die. If the pH of the soil is over 5.5 , then the soil is not acidic enough for blueberries. Prior to planting, be sure to test your soil's pH; testing kits are readily available in many hardware or garden stores, and DIY tests (such as mixing wettened soil with baking soda to see if it fizzes, in which case it's acidic )can also be useful indicators. If needed, you can lower the pH before planting by adding an acidic soil amendment such as sulfur or sphagnum peat. Sulfur is preferred as the environmental consequences of sphagnum peat mining are becoming an increasing concern.

## PLANTING

1. Dig a hole large enough to accommodate all the roots in both width and depth.
2. Trim off any roots that are particularly long or unruly. Place in the hole, positioning the plant so that the uppermost part of its roots are level with the ground. The roots should be spread out in the hole; try to keep the roots separated and avoid wrapping them around each other.
3. Fill in the hole with your amended soil. Tamp down lightly to ensure that no air pockets remain, and water thoroughly.
4. Mulch the plant with $2-4$ inches of sawdust, peat moss, oak leaf, or pine needle mulch; these types of mulch are acidic and will help maintain a low soil pH in addition to maintaining moisture, preventing weeds, and reducing soil temperature in the summer.
5. Repeat as needed for multiple plants. Space blueberry plants about 3 feet apart, adjusting as needed depending on variety.

## CONTINUED CARE

Water the plant frequently and deeply, enough to keep the soil moist but not saturated. Replenish mulch as needed.
Generally, blueberries don't require any support, but if the plant seems to be weak or growing at a non-vertical angle, a stake may be driven into the ground close to the main stem, and the stem gently tied to the stake with a wide tie such as those used for trees, or with a strip of fabric. Do not use wire as it may cut into the stem.

