



Champaign County Juvenile Detention Center Master Gardener Community Garden

Raspberries, Blackberries, and Blueberries Lesson

Time

15 – 30 minutes

Overview

Berries are popular fruits grown in the garden in the United States. This lesson explores the raspberry, blackberry, and blueberry plant.

Objectives

Students will:

- Discover how to plant, care for, and harvest raspberries, blackberries, and blueberries.
- Learn about the nutritional value of these berries and how to prepare them in tasty ways.

Supplies

- Different varieties and colors of berries

Snack

- Berry parfait
- Berry shake
- Berry pie
- Dried berries

Activity

Watching the pruning of berry plants, fertilizing plants, weeding, and harvesting berries.

Sources

<http://www.urbanext.illinois.edu/fruit>

<http://www.bestveganguide.com/blueberry-nutrition.html#ixzz1ZOrhaVBv>

Raspberries, Blackberries, and Blueberries

DO: Begin by introducing yourself and the other Master Gardeners by first names.

SAY: Good afternoon. We are a group of Master Gardeners of Champaign County here to provide a gardening program today at JDC. In the fall and winter months we come every other week to give a lesson on plants, eating right, and taking care of the planet. In the spring and summer we work together with you to plant and maintain a vegetable and flower garden in the outside rec area. (depending on time... I became interested in gardening because... Does anyone else have gardening experience or a relative who gardens?)

Today's lesson will be... I am... with other volunteers... (introduce themselves).
(Participants may introduce themselves also.)

Today we are going to talk about some common small fruits we grow in the garden.

Raspberries

Raspberries are a popular small fruit for backyard gardens. Red, black, purple, and yellow fruit types are available. Almost all raspberries bear fruit on 2-year-old canes, then the cane dies. This calls for ongoing pruning as a regular care practice when growing raspberries. Both summer bearing and ever bearing (June, Fall) varieties are available - except in the case of black raspberries.

Planting

Plant raspberries in early spring. Raspberries are usually sold as bare root stock, so inspect the root system, removing any broken or damaged roots. Spread the roots out when placing them into the planting hole.

After planting, cut red raspberries down to about an 8 to 12 inch height. Purple and black raspberries should be cut to ground level and the material removed for disease control concerns. If the plants were produced by tissue culture, no pruning is needed after planting.

Care

Fertilize raspberry plantings about 10 to 14 days after planting. Starting the second season and annually thereafter, fertilize raspberries in early spring before growth begins. Apply a balanced fertilizer. Don't fertilize raspberries in late summer or early fall as it may force new growth that does not harden off properly for winter.

Raspberries grow best when some type of support is provided for the canes. Plants may be planted in hills or hedgerows. Red raspberries will readily spread by root suckers while purple and black do not. If using the hill system, plants are grouped around a strong stake or pole, and then trained to grow on the support. Raspberries can also be grown on trellises in rows.

Raspberries must be pruned on a regular basis to stay productive. The basic rule to remember in summer bearing raspberries is that fruit is produced on the cane in the second year of the cane's growth, then that cane dies and should be removed. Pruning needs vary with the type of raspberry being grown, however.

Red and yellow raspberries should be pruned twice a year. Early spring pruning should remove weak canes and then a second pruning should be done right after harvest to remove canes that have fruited. Do not summer prune, or what's often called topping, red or yellow raspberries.

Purple and black raspberries require pruning three times a year. In addition to the spring and after harvest pruning mentioned above, they also require summer topping to encourage development of lateral shoots off the canes. All new shoots should be pinched back in summer 3 to 4 inches once they have reached desired height. Lateral branches then develop that will produce fruit.

Insects and Diseases

Regular pruning helps reduce cane blight and other disease concerns. Viruses are also a potential major disease problem. Plants infected with a virus will appear stunted, dwarfed, and will be unproductive. It is suggested that you go through the raspberry plantings at least twice a year to scout for virus infected plants. Remove and destroy these plants as soon as they are noticed.

Always purchase certified nursery stock to help reduce potential virus problems. Do not share plants with other gardeners that have been dug out of gardens and keep wild brambles in the area under control. Insects that can affect raspberries are aphids, Japanese beetles, sap beetles, fruit worm.

Red raspberries tend not to show virus symptoms if infected but aphids can still spread the virus to black raspberries that tend to be very susceptible. Plant black raspberries away from red raspberries but if you have a limited space, always plant black raspberries upwind from the red raspberries so that aphids are not blown by wind from red to black raspberries.

Nutrition Facts

Raspberries are rich in vitamin C. They are also a source of soluble fibers and may lower high blood cholesterol. Half to one pound of raspberry fruit per day can provide twenty to thirty grams of fiber which is adequate for an adult daily nutrition requirement

Blackberries

Blackberries are more dependable in central and southern Illinois than in northern Illinois due to winter damage problems. If you really want to try them in northern Illinois, look for the variety 'Illini Hardy,' and try new fall bearing varieties like 'Prime Jan' and 'Prime Jim.'

Plant in a location with well-drained soil and full sun. Do not plant on a site where verticillium wilt was a problem. Destroy any wild brambles as they harbor pests and diseases that attacks blackberry. Plant erect blackberry types 4 to 6-ft apart in a hedgerow.

Remove the tips of the canes in spring to stimulate growth of lateral branches. Prune dead, weak and overcrowded canes during the dormant season.

Blackberries are rich in fiber, Vitamin C, Vitamin E and in anti-oxidants

Blueberries

Although popular to eat, blueberries have very demanding needs. The greatest of these demands is an acidic soil, as blueberries need soils with a pH range of 4.8 to 5.2. Many soils in northern Illinois are quite alkaline (high pH).

In addition, blueberries need well-drained soils, mulching, and irrigation. It takes considerable effort to grow blueberries in our area. Plant at same depth as in container or in nursery. Mature blueberry bushes need to be pruned every year, and fertilized with ammonium sulfate.

Blueberries are very low in calories. They contain health benefiting soluble dietary fiber, minerals, vitamins and pigment anti-oxidants that contribute immensely for optimum health and wellness.

Research carried out at the US Department of Agriculture discovered that blueberries had the highest antioxidant capacity of 40 tested fruits and vegetables.