

## Bramble Fruit



Lithograph of Lucretiaberries from *The Small Fruits of New York*, published in 1925.

Brambles, by any other name ..., well, frankly would sound more appealing. Really, “brambles” refers to the wonderful grouping of berry fruit to which raspberries, blackberries and black raspberries belong. In fact, there are so many berries that fall in this grouping that it staggers the imagination. Some sources refer to over 200 species of Bramble fruit. Consider just a few aside from the common raspberry, such as Dewberry, Chinaberry, Boyesberry, Marionberry, Cloudberry, Salmonberry, Thimbleberry, Wineberry, Loganberry, Bingleberry, Olallieberry, Lucretiaberries, and Phenomenalberry.

Equal to the wide range of names for these fruit is the diversity of fruit characteristics they offer, in size, shape, color, fruiting season and flavor. There are a variety of growth habits, too, from tall, robust, erect forms to trailing groundcovers. Mercifully, there is also variation in the amount of thorniness among some varieties (from which of course, the heading derives).

Home gardeners have long enjoyed backyard berry

patches with bramble fruit of various sorts but many have also been confused and confounded by how to manage them successfully. Here we will go over most of the basics for establishing and maintaining a productive backyard patch of raspberries or blackberries. General growth habit, site and soil requirements, varieties, planting and pruning, pest and disease management, and resources for more information will be provided.

### Morphology

All brambles are biennial, producing vegetative canes one year called *primocanes* which overwinter and produce flowers and fruit the second year and are then called *floricanes*. The canes die back after they produce fruit so the plants are always comprised of a combination of primocanes and floricanes. This is the key to understanding how to prune them (see Planting and Pruning section). Red raspberries tend to produce primocanes from root laterals and will tend to spread. Black raspberries and blackberries tend to produce new primocanes from the crown and spread only if long canes bend down and are in contact with the soil.



Watercolor of Wineberry from Pomological watercolors in the USDA collection at the National Agricultural Library in Beltsville, Maryland. Received from William H. Prestele 07/12/1894

Some cultivars of raspberry have been discovered to produce fruit on primocanes (the result of a natural genetic mutation) and are commercially available as "Fall Bearing" raspberries. These types will produce fruit on both primocanes and floricanes or just on primocanes, depending on how they are pruned in the winter. More on this below.

### **Site Requirements and Preparation**

The first order of business is picking a good site for the berry patch. Bramble fruit are all in the Genus *Rubus* which belongs to the Rosaceae Family. As such, they like a well drained sandy loam, pH slightly acid (5.5 - 6.5), with moderate fertility and soil organic matter content. They want full sun, or as close as you can get.

The site for a future berry patch should be prepared a year ahead of time by clearing it of existing vegetation and incorporating the necessary soil amendments (lime, compost, etc.) to meet the requirements for Brambles. Getting control of weeds, especially grasses, in advance of planting the bed will save a lot of sweat and aggravation once the plants are in.

### **Variety Selection**

As mentioned above, the number of varieties of various Bramble species and varieties is substantial. For New England, the choices are somewhat limited by their hardiness rating. Many of the cultivars available are not sufficiently hardy to be grown in most of New England. Other characteristics that help narrow down the list of choices include season (early, mid or late-season fruiting), fruit quality or flavor (very subjective), and disease resistance. For homeowners who want to minimize or eliminate the need to use fungicides to control potential disease problems, picking varieties that have some natural level of resistance would be helpful. There are many lists of recommended varieties available either from Extension publications or Commercial Nurseries. One of the best ways to locate a source for a variety you are looking for is to visit a website at Cornell University that lists varieties/cultivars of all the different types of small fruits and then provides references to the nurseries that offer those varieties at <http://www.fruit.cornell.edu/berries/nurseries/>. Some additional information sources are listed in the Resource section below.

### **Planting and Pruning**

Plants can be purchased from many different sources. Potted plants are often available at garden centers and plants can also be ordered from nursery catalogs. Be sure to use a reputable nursery with virus-free certified plants. Most major nurseries fall in this category. Most brambles are available as one year old, dormant, bare-root plants, but some nurseries will also offer tissue culture plug plants. Either will work. If you purchase dormant, bare-root plants, they can be planted as soon as the soil is workable in the spring. Tissue culture plugs should be planted only after the danger of frost is past.

Plants should be put in at about 1" deeper than the depth they were growing at the nursery with a spacing of 3' - 4' between plants in a row and rows should be 8' - 12' apart. This allows adequate sunlight and air circulation among the plants and also allows enough room to walk between the rows when picking etc. Be sure to water them regularly until they are well established. A sod path between the rows will help prevent erosion and be aesthetically appealing. Use a slow growing, non-spreading grass mix for ease of maintenance.

Pruning should be done in late winter or early spring when the danger of severe cold is past. All varieties should have spent fruiting canes removed when plants are dormant. For summer bearing red raspberry types, the remaining primocanes should be thinned to keep them in a narrow row (18" wide at the base) and 6-8" apart in the row.

## Red raspberry pruning

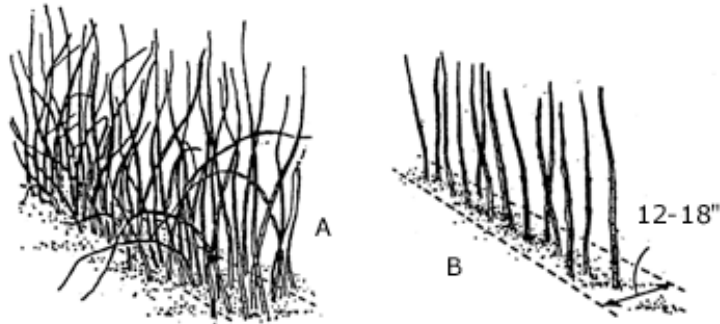


Illustration from PennState Small Scale Fruit Production Guide.

### Steps for pruning red raspberries:

- Remove spent floricanes
- Thin remaining primocanes to 6 - 8" apart (weed out spindly canes, keep robust canes)
- Re-establish 12 - 18" row width
- Top remaining canes to 6" above top trellis wire (48" - 60")

For black raspberries and blackberries, remove spent floricanes and thin remaining primocanes to 6- 10 per plant during dormant pruning. One additional step is beneficial to these types and that is summer tipping. This is the removal of the top 6" or so of primocanes in the summer to stimulate the growth of longer laterals which will bear more fruit.

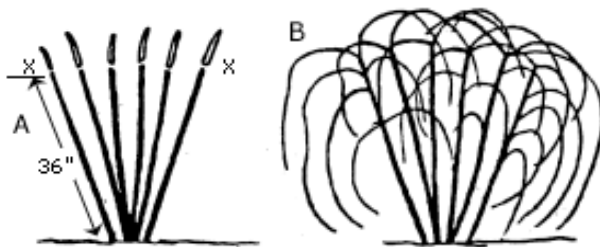


Illustration from PennState Small Scale Fruit Production Guide.

### Steps for pruning blackberries:

- A - B Tip canes in summer to promote growth of laterals (leave at least 6" above top trellis wire)
- C - Remove spent floricanes
- C - Thin remaining canes to 5 - 10 canes per plant (remove spindly/damaged canes first)
- C - Head back laterals to 6 - 8"
- C - Adjust overall height of plants to 6" above top trellis wire

Fall bearing raspberries can be managed similarly to summer bearers with the addition of a fall crop. However, their great advantage is the ease of pruning when managed only for their fall crop. In that case, simply mow the canes to the ground in late fall or early spring and allow new canes (primocanes) to grow in a row 18" wide. Cane density is less important but if they appear too dense, a little thinning of weaker canes would be good for improved air circulation.

## Trellis systems

Most brambles will require some support to keep canes from lodging or breaking when loaded with fruit. Some erect blackberries are strong enough to stand without support, but even they may succumb to high wind on occasion. Many options for staking or trellising are available but the key is to be sure that it is strong enough to withstand the weight of the canes when bearing fruit.

**Fertilization**

Apply 1 pound of 10-10-10 fertilizer per 100 feet of row at 10 days and 40 days after planting. In years to follow, apply 2 – 3 pounds of 10-10-10 per 100 feet of row in the spring (before growth starts) and again in May.

**Pests and Diseases**

A variety of insect pests and diseases can plague the home berry patch. Insect pests may include Japanese beetles, Raspberry fruitworm and Raspberry caneborers. Disease problems may include Botrytis fruit rot, Cane blights, and various rot rots. Since pesticide labels change frequently, it is best to refer to up-to date publications for management recommendations. Cultural practices like pruning for optimal air circulation in the rows, frequent harvesting of ripe fruit, not planting in wet lowlands and removal of all plant debris during pruning can help keep overwintering pest populations and disease inoculum low. Also maintaining healthy vigorous plants will help reduce their susceptibility to infection or infestation by pests and diseases.

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