

BRAMBLE CULTURE

RASPBERRIES & BLACKBERRIES

...both members of the genus Rubus, are collectively known as brambles. All brambles have a perennial root system which produces canes that are either biennial (grow for 2 years) or annual. During the first growing year the canes are vegetative and are known as primocanes. In the second growing season, the canes become reproductive and bear fruit. Following fruiting, these 2 year old canes, now called floricanes, die. At the same time, the bramble plant is also producing new primocanes. Under good care the plant will normally grow and bear fruit for ten years.

SITE SELECTION

Brambles should be planted on deep, well drained loamy soils. They can be grown on sandy soils if irrigated. Ninety percent of the bramble root system is in the top 20 inches of the soil—so proper fertilizer and an ample supply of water is important. Heavy or poorly drained soil should be avoided as bramble roots cannot tolerate a water saturated soil condition. Even areas that pond after it rains should be avoided. Your site should also receive full sun and have good air drainage. Brambles should not be grown in an area in which tomatoes, potatoes, eggplant, peppers or other crops susceptible to Verticillium wilt have been grown in the past 3-4 years. To avoid getting diseases from wild brambles, all wild brambles within 600 feet of your planting should be removed. You should prepare your bramble site at least one year prior to planting. Work to build up organic matter and eliminate perennial weeds. A pH of 5.5 to 6.5 is desirable and the pH should not be below 5.5 or above 7 as serious problems will arise. Contact a fertilizer supplier or your County Extension office for testing procedures and to determine the best way to amend your soil.

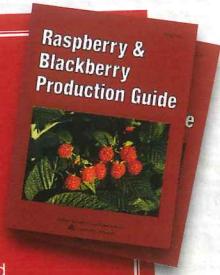
ANTHRACNOSE CONTROL

Where good sanitation is used (old fruited and infected canes are removed from the field), Anthracnose may not be a problem, especially on red raspberries. Where cane diseases are a problem, primarily black and purple raspberries, Lime Sulfur is very important. Lime sulfur is recommended for use on brambles as a delayed-dormant application in early spring (when buds show 1/4-inch green). Follow the directions on the label. If applied later in the season (after 1/4-inch green), it can cause severe damage to leaves and young canes. Lime sulfur is recommended for control of the cane-infecting fungi (anthracnose, cane blight, and spur blight). The delayed dormant application in spring is intended to eliminate or reduce the overwintering inoculums for these diseases on canes. Lime sulfur has a bad smell (rotten eggs) so there can be a problem spraying it around your neighbors. In addition, lime sulfur is very caustic. It is harmful to machine parts, paint (especially on cars), and

RASPBERRY & BLACKBERRY PRODUCTION GUIDE

Edited by David Handley and Marvin Pitts, authored by 15 specialists. Covers bramble production from site selection and preparation through plant selection. Discusses harvest and handling, transportation of fruit market, enterprise budgeting, provides reference numbers for related text and photos. Provides all information to successfully produce raspberries and blackberries.

Book #9 \$48.00



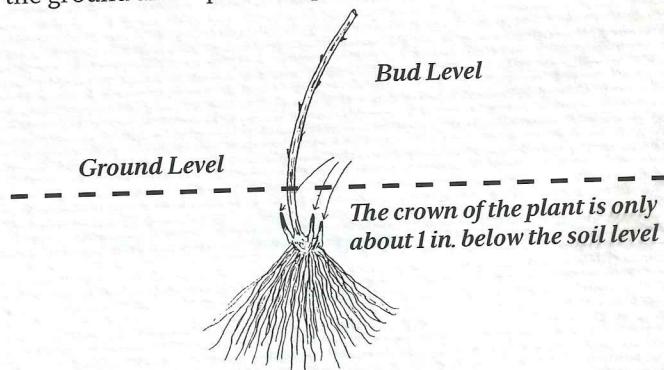
sprayers. Special care should be taken to avoid drift and proper protective clothing should be worn by the applicator.

IRRIGATION

Ample amounts of water are needed for a healthy bramble planting, but never standing water. Newly planted plants should be watered in well. Producing fields need up to two inches of water per week. This is especially true during fruit development and up to harvest. The use of mulch can help maintain and moderate fluctuations in available moisture, but may increase your chances of developing root diseases. Therefore we do not recommend using mulch after the first year.

HOW TO PLANT YOUR BRAMBLES

Set your plants in trenches large enough to contain the roots without crowding. Separate the roots in half and spread out on both sides of the cane. Set all brambles one inch deeper than they were in the nursery. You can determine the proper depth by the dark brown color line on the cane. The roots should only be covered with approximately 2" of soil. Be sure to press dirt firmly about the roots and water well to prevent air pockets. If the weather is dry, put on a light straw mulch. Blackberry roots are particularly sensitive to sunlight so it is very important to keep the roots covered as much as possible while plants are out of the ground and if possible, plant on an overcast day.



YES... YOU CAN PLANT RED & BLACK BRAMBLES TOGETHER

Historically they have been planted separately but not to keep the fruits from cross pollinating. The potential problem is from insects transmitting diseases. If you control the insects, you control the problem. However, separating them by at least 200 yards will protect you from most problems.



All raspberries and blackberries should be cut off at ground level after planting to encourage new growth from the roots instead of buds breaking on the cane. New growth typically takes 4-6 weeks

If there are any wild brambles growing around or near your new planting, they should be dug up and destroyed to prevent the possibility of their carrying diseases.

ADVANTAGES OF RAISED BEDS

Medium to heavy soils often lack the proper drainage needed to successfully grow brambles. As Phytophthora Root Rot, a soil borne fungus is commonly associated with poorly drained locations, raised beds can be a positive cultural step for control of the disease. Results of experiments show an 87% increase in yields on raised bramble beds. Raised bed production has long been considered an important cultural method for improving soil drainage. Even efforts for an 8-10" bed will be worth the investment. Research has shown, raised beds are an important step for increasing yields in Phytophthora susceptible bramble varieties.

PRUNING

SUMMER RED RASPBERRIES:

In early spring, thin all floricanes (the 2 year old canes) to 3-5 large canes per linear feet of row and top at a convenient height for picking. Immediately after fruiting, cut floricanes at ground level and burn. If this is done on an annual basis nothing needs to be done to primocanes. (*See Below*)

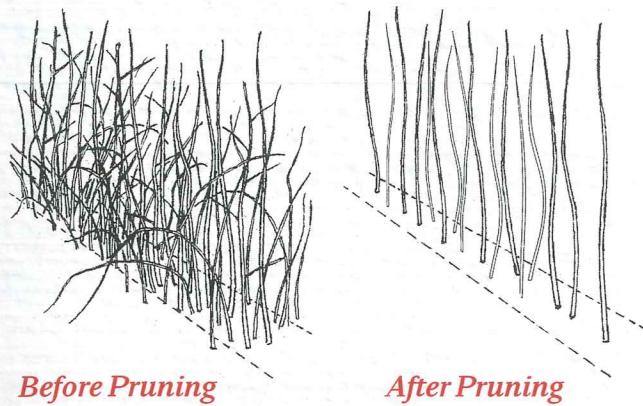
BLACK/PURPLE RASPBERRIES:

When black raspberry primocanes (1st year growth) reach about 24 inches, pinch them back to stimulate lateral branching. At least 4" of the tip should be removed during pinching. Purple raspberries should be pinched at 30". This may need to be done multiple times during the growing season as canes grow at different rates. Immediately after fruiting, remove floricanes at ground level and burn. At the end of the first year, primocanes are branched with long laterals. These laterals should be supported by trellis wires in early fall as snow tends to break them off the main cane. In early spring shorten these laterals to remove winter damaged wood and to maintain berry size. A good rule of thumb is to shorten the laterals back to pencil diameter. This usually leaves about 6 - 10" of growth. Very small spindly laterals as well as any laterals close to the soil surface should be removed. (*See Right*)

FALL/EVERBEARING/PRIMOCANE BEARING RASPBERRIES AND BLACKBERRIES:

To prune Primocane bearing berries for a single, late-season crop simply cut them back to the ground each year in late winter or early spring. It is important to cut canes as close to the ground as possible so that new buds will break from below the soil surface. If canes are not cut low

enough, fruiting laterals may form on any remaining cane portion. These fruiting laterals are not healthy and are entry sites for insects and disease. While these varieties can produce fruit twice a year, July and again in the fall, the small July crop usually does not justify the added labor involved.

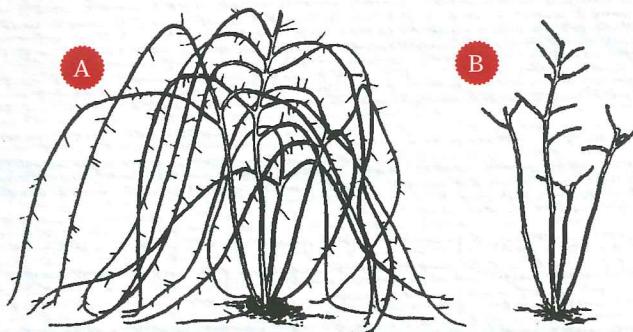


SUMMER BEARING RED RASPBERRIES
BEFORE AND AFTER LATE WINTER/EARLY
SPRING PRUNING

BLACKBERRIES:

Erect - When blackberry primocanes (1st year growth) reach about 36 inches, tip them to stimulate lateral branching. Immediately after fruiting, remove floricanes at ground level and burn. In early spring, remove any dead or damaged canes and thin remaining canes leaving 5-6 per linear row. Prune laterals back to approximately 12" or pencil diameter.

Trailing - Tip primocanes when they reach 5' (midsummer) and attach to trellis. In early spring, remove any dead or damaged canes, and prune laterals back to approximately 12" or pencil diameter. Immediately after fruiting, remove floricanes at ground level and burn. Select the best 6-8 primocanes per linear row and attach to trellis.



BLACK & PURPLE RASPBERRIES
BEFORE (A) AND AFTER (B) WINTER PRUNING