



Virginia Cooperative Extension

Virginia Tech • Virginia State University

www.ext.vt.edu

Directions for Establishing One Acre of Blackberries in Virginia

Dr. Reza Rafie, Extension Specialist-Horticulture Science
Virginia State University

Identify Your Markets

It is crucial to decide upfront where you will sell your blackberries. There are several options:

- Wholesale
- Direct to Consumer
- Value Added Processing

Location

The best location for your blackberries depends on several factors:

- The history of your land and what was grown on it before.
- Lots of sunlight: Your plants will need a minimum of eight hours of direct sunlight each day.
- Accessible irrigation: Where is your water source?
- Adequate air and water drainage.
- Wild bramble: Eradicate wild brambles a minimum of 500 feet from your planting area. Wild brambles are sources of viruses and diseases that can infect new plants.
- Bed orientation: An east-west orientation is recommended.
- Soil testing: A pH level of 5.7- 6.5 is needed. Follow fertilizer and lime recommendations from your soil test report.

Locating Planting Stock

For your planting stock, you will want to:

- Talk to local nurseries about varieties readily available to you.
- Purchase your blackberry plants from reputable nurseries with virus-free stock.
- Decide between bare-root vs. tissue-culture plants. Nurseries that provide tissue-culture plants usually certify virus-free plants.

Soil Preparation

Follow these steps to prepare your soil:

- In the fall, subsoil as deep as possible depending on the soil type and your machinery. The land lays fallow through the winter.
- Use a turning plow in early April to start working your land. Disk, apply your fertilizer as recommended and incorporate it into the soil.
- Install your sub-main line and risers for your irrigation system according to the size of your equipment. (Note: A riser is a unit that connects your dripline in each row to the underground sub-line; see Figure 1). If the land grade is more than 3%, a pressure regulator is recommended for every row.
- The tractor you use for spraying and mowing must fit your rows.
- Make your beds. Lay landscape fabric and your drip irrigation (25 ml dripline) all at the same time. The dripline should be buried 1½–2½” deep. The distance between rows is usually 10–15 ft.
- After you build your beds, plant grass of your choice between your rows and before you burn the holes for your plants.



Figure 1: Riser

Planting

Planting is done in spring after the last frost; however, fall planting is also possible. Follow these steps:

- Run your irrigation to identify where your emitters are. A measuring stick helps to identify spacing.
- Carefully use a propane torch to burn the plastic and open the space for your plants. Too big of a hole will cause weeds to grow.
- Depending on the varieties, in-row plant spacing should be 4–6 ft.
- Make sure the bed is moist, then plant your blackberry plug, and cover with soil no more than ½” above the root plug.
- Monitor your soil moisture.

V-Trellises

For building your V-Trellises, do the following:

- Using a post pounder or auger, install the end posts (8 ft. x 6") 3 ft. in the ground. Be careful not to damage your irrigation system. Install the end post in at a 15–20 degree angle away from the berry plants.
- Install two T-posts (7 ft.) every 3rd plant, one on each side of the row. The T-posts should be installed between plants and not right beside the plants. The nipples on the T-post should be pointed inward.
- Install your T-post on the edge of the bed at 10 degrees angled outward, hammered down 15"–18".
- Install the wire one strand at a time. Use wire clips to attach them to the T-post. Wire should be installed inside the T-post. Do not tighten the wire until clamps are installed on the T-post.
- There are three levels of wire on each side: the first level is 20"; the second level is 40"; and the third level is 60" high. Use wire vises or Gripple wire vises to secure the wires on the end-post. Tighten after the wires are installed.
- When the canes are 40" long, they must be tied to the bottom wire using branch lock.

What Variety/Varieties to Plant

- Table 1 outlines different blackberry varieties and their characteristics to help you decide which variety/varieties to plant. Your decision on which blackberry varieties to select depends on your market, shelf life, fruit quality and size. Varieties that have a shorter shelf life may be suitable for local markets. When growing for local markets, also consider taste.
- The new Primocane fruiting blackberry varieties have increased the options to extend the production season and are adapted to areas with harsher growing conditions.

Table 1. Common blackberry varieties planted and evaluated at VSU-Randolph Farm, and by several Virginia growers.










Variety Name	Type	Harvest Time	Image	Description
Natchez	Floricanne	Early season		Thornless, erect, big-size fruit, suitable to local market, does not ship well, very tasty when completely ripened.
Ouachita	Floricanne	Early season		Thornless, erect, medium-sized fruits, good for long distance shipping.
Chester	Floricanne	Late season		Thornless, semi-erect, medium-sized fruits, very high yield, 25,000 lbs./acre reported, excellent postharvest handling, and suitable for commercial shipping.
Tupi	Floricanne	Early season		Thorny, erect, large size fruit, flavor “well balanced sweetness/ acidity”, 9,000–15,000 lbs./acre yield reported, excellent postharvest handling and suitable for commercial shipping.

Table 1., cont.

Variety Name	Type	Harvest Time	Image	Description
Navaho	Florricane	Mid-season		Thornless, erect, very tasty, very good postharvest handling, and suitable for commercial shipping. It is susceptible to orange rust disease.
Osage	Florricane	Early to mid-season		Thornless, erect, medium-sized fruit, excellent postharvest quality, very good flavor. Under further investigation at VSU's Randolph Farm.
VON	Florricane	Mid- to late season		Thornless, erect, medium-sized berry, good postharvest quality and taste. Under further investigation at VSU's Randolph Farm.
Kiowa	Florricane	Early season		Thorny, semi-erect, very large fruits, good flavor, good postharvest potential.
Prime-Ark-45	Primocane	May produce two crops per year. First in early fall, and second in early summer.		Thorny, erect, large fruit, very good postharvest handling, excellent taste. Growers interested in planting this variety should learn how to manage and prune Primocane blackberry.

Materials List

To prepare your acre for growing blackberries, the following list of materials is recommended. You may be able to rent equipment:

- Tractor of at least 40 HP
- Subsoiler or chisel plow
- Plow, disc and/or rototiller
- Irrigation Kit (pump, filters, gauges, back flow preventer, Fertilizer Injector (Chemilizer or Dosatron), PVC piping, fittings, transition piping, subgrade housing, shut off valves, etc.)
- Trencher for irrigation supply lines
- Plastic Mulch Layer Implement (48” wide/irrigation tube spool) – rent or borrow from fellow farmer
- Black plastic fabric mulch – (4’ wide/300 foot roll. /4200 feet is needed for one acre)
- Drip Tubing – 25 mL dripline; 24” spaced emitters)
- Propane torch
- 8’ x 6” diameter end posts – (2/row), 15–20 degree angle
- Post driver or auger
- 7’ T-posts and wire clips - 468 total
- T-post pounder
- High-tensile wire – 12 gauge – 6 rolls, 4000 ft./roll), 24,000 ft.– 6 wires per row, 3 on each side
- Wire vises (Gripple) – (6 minimum per end post), 12 per row
- Branch locks or vine ties of some sort, 10,000 branch locks
- Blackberry Plants – a total of 720 plants, depending on the varieties

Plant Sources

Below are the plant sources utilized in VSU field demonstrations. We do not endorse any particular nursery. When ordering blueberry plants, be sure to obtain clean and disease-free plants.

AGRISTARTS, <https://www.agristarts.com> (407) 889-8055

North American Plants, <http://www.naplants.com> (877) 627-4636

Nourse Farm, <https://www.noursefarms.com> (413) 665-2658

Figure 2: Cost of production for establishing one acre of blackberries

Materials	Cost (\$)
Plant purchase	1,500.00
Mat, Landscape fabric, 14 rolls, 300 ft., each roll	850.00
25 mil-dripline, 5,200 ft. (2600 ft./roll)	582.00
A bag of dripline end plugs	20.00
A bag of risers dripline connectors	40.00
A big of dripline splices	40.00
PVC, 1.5" for submain, estimated 220 ft. long, 20 rows	150.00
Riser materials, plus glue	100.00
T-Post, 465 of them, 7ft.	2,600.00
End-post, 40 of them	520.00
Wire, 12 gauge high tensile, 6 rolls, 24,000 ft.	600.00
Wire vises or gripples	600.00
Fertilizer, 10-20-20, 400-450 lbs.	110.00
Rental of plastic mulch layer (two days)	250.00
Post-pounder rental or using auger	300.00
6.5 hp pump and suction hose	900.00
TOTAL MATERIAL	9,162.00
LABOR	
40 man-hours to lay the plastic	400.00
16 man-hours for installing the end-posts	160.00
40 man-hours to install T-posts	400.00
20 man-hours to plant the blackberries	200.00
2 man-hours to plant grass seed plus cost of seed	220.00
TOTAL LABOR	1,380.00
TOTAL PRODUCTION COST	\$10,542

Project Contact

Dr. Reza Rafie, Extension Specialist-Horticulture Science
 Virginia State University, College of Agriculture, Cooperative Extension
 Phone: 804-712-4600
 Email: arafie@vsu.edu

Special Acknowledgement to Jeff and Joey Cole from Cole Berry Farm in Vernon Hill, VA