

## VII. Trellis Systems

Growers use many trellis support systems to support bramble canes. Your trellising goal is to minimize labor and maximize yield. Each trellis type has its advantages and disadvantages, and most can be modified to suit your needs. Evaluate each trellis system to determine what type best suits your needs.

### I-trellis

A single post can be used and the canes can simply be gathered and tied to the post at approximately 4 feet (Figure 1).

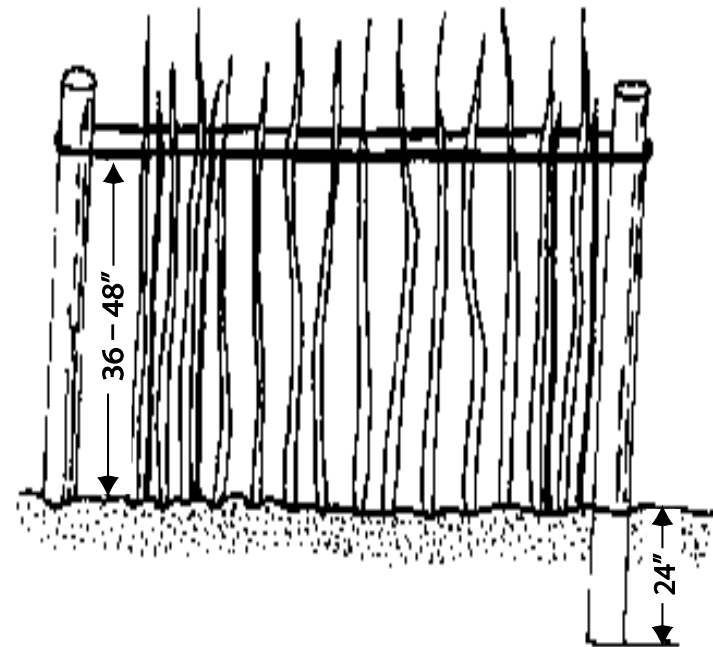
#### Advantages

- Easy to build and maintain.
- Economical.

#### Disadvantages

- Lower yield.
- Crowded canopy, which will increase disease pressure and make harvest more difficult.

**Figure 1. I-Trellis (Hedgerow).** 6- to 8-foot metal fence posts, cedar posts, or pressure-treated posts (4 to 6 inches in diameter) are spaced about 20 feet apart. Posts are buried 24 inches in the ground. (From Roper, T.R., D.L. Mahr and S.N. Jeffers. *Growing Raspberries in Wisconsin*. University of Wisconsin, Publication A1610)



## V-trellis (with metal T-posts)

The most common type of bramble trellis is the V-trellis (Figures 2a and b).

### Advantages

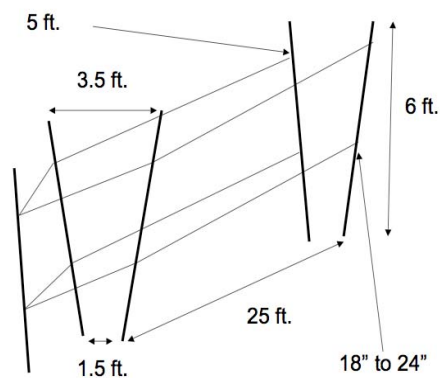
- This trellis allows greater light penetration into the canopy and as a result, higher yields than a single post.
- Air circulation is greater, so disease pressure is decreased.
- If fence posts are used, horizontal wires can be moved up or down to accommodate a cultivar's vigor.

### Disadvantages

- Higher cost than a simple I-trellis.

**Figure 2. V-trellis for blackberry or raspberry support.** Typical V-trellis design with steel posts set 20 to 30 degrees from vertical.

**Figure 2a.**



**Figure 2b.**



## V-trellis (with rebar)

Growers in South Georgia use this system (Figures 3a and b).

### Advantages

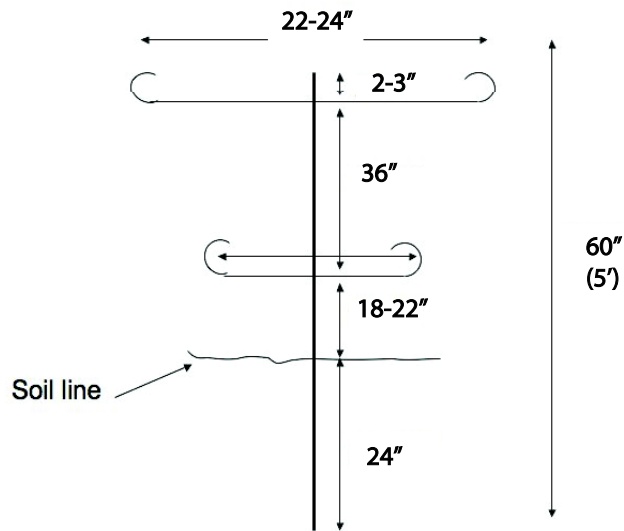
- Posts can be reused and therefore are economical.
- Easy cane removal after harvest.

### Disadvantages

- Cannot be higher than 4 feet, so some potential yield is forfeited.
- May not be able to support heavy crop load.
- May not hold up in ice storms.

**Figure 3. Rebar V-trellis.** Growers in Georgia have devised this system for their blackberries. The main post is made of 1/2-inch rebar, while the crossarms are 3/8-inch rebar.

**Figure 3a.**



**Figure 3b.**



## V-trellis (with wood)

This trellis has a similar structure as the previous system, but is made of wood (Figures 4a and b).

### Advantages

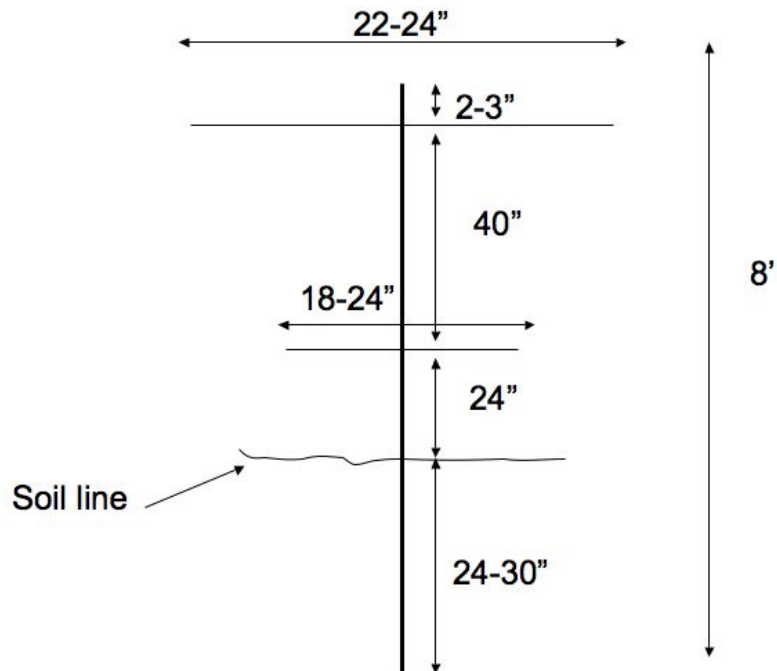
- Opens up canopy for higher yields and improved air circulation.
- Can retrofit from an I-trellis without having to install new posts.

### Disadvantages

- Wire height cannot be adjusted once cross arms are installed.

**Figure 4. Wood V-trellis.** This trellis functions similarly to the rebar V-trellis. 8-foot posts made from pressure-treated lumber or cedar are set 2 feet in the ground. Crossarms are pressure treated 2-inch by 4-inch lumber. Posts are set 20 to 30 feet apart in the row.

**Figure 4a.**



**Figure 4b.**



## Stiles shift trellis

This trellis (Figures 5a and b) was designed by researchers at Virginia Tech (<http://scholar.lib.vt.edu/mirrors/vaes/vaes99-1.pdf>).

### Advantages

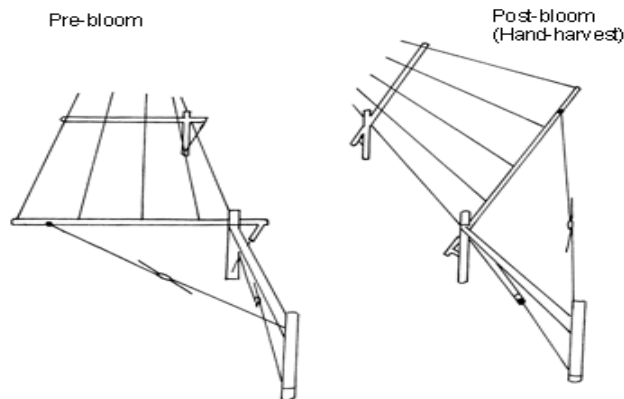
- Easier harvest, all fruit is on one side of the canopy.
- Less sunscald.

### Disadvantages

- Expensive.
- Harder to learn how to train and prune.

**Figure 5. Shift trellis** (images courtesy of Virginia Technical University, <http://scholar.lib.vt.edu/mirrors/vaes/vaes99-1.pdf>). The shift is a pivoting trellis, which means it moves in an arc from one side of the row to the other. At bloom, the canopy is positioned parallel to the ground to concentrate flower development on the upper part of the canopy. As the fruit begins to mature, the arm is moved to 120 degrees from the horizontal prebloom position and slanted westward.

**Figure 5a.**



**Figure 5b.**

