

# Trellis Techniques

Bring space and visual interest to the garden.

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## What can grow vertically?

There is a huge variety of produce that is capable of growing vertically such as tomatoes, peas, cucumbers, gourds, melons, as well as squash and pumpkins. Particular plants of interest can be looked up. It's important to select nonbush varieties of some of these fruits. Bush varieties of peas and cucumbers don't need trellising as their vines reach only 4-6ft long. The vines of smaller gourds and melons will grow strong enough to hold the weight of the fruit, so there's no need to support fruits with individual hammocks.



## Why build a trellis?

Adding a trellis to the garden has many benefits such as:

- Saved space
- Increased yield per square foot
- Easier monitoring and controlling of pests
- Easier harvesting
- Reduced waste due to fallen produce
- Increased accessibility for gardeners with disabilities
- Improved garden aesthetics

## Trellis Styles

Different fruits and vegetables climb different ways. To ensure a plant will take to a trellis climbing techniques need to be paired with an appropriate trellis shape, width, and material.



# How do plants climb?

Each plant climbs in a particular way, some wrap, some adhere, and some curl based on their anatomy.

## **Tendrils:**

Stem and leaf tendrils are skinny, wiry structures along the plant's stem or leaf node that reach through the air until they make contact with something they can grab. Upon contact, the tendril curls and coils to adjust the degree of tension on the support.

"Like a rock climber scaling the face of a mountain, plants that have tendrils need handholds in the form of horizontal support" (Kathy LaLiberte.) They grow best using netting that is at least 2", brushy branches, thin horizontal strings, and material that is no more than 1/4 " in diameter.

**Examples: Peas & Passionflowers**



## **Twiners:**

Twiners come in two varieties, twinning leaves and twinning stems. Twining leaves twist around thin supports such as wires, string, twigs, or other leaves.

Twinning stems twist around whatever they touch, be it a pole, branch, or chair leg. The stems wind clockwise or counterclockwise depending on the species.

**Examples: Pole Beans & Clematis**

## **Scramblers:**

Scrambler plants have long, flexible stems resembling vines, however they are unable to climb without help. These plants climb with the help of thorns that grip neighboring stems. To aid climbing, properly tie these plants to the trellis with wire or string.

**Example: Climbing Roses**

## **Adhesive Pads:**

Other plants can grow to almost any surface with the help of adhesive pads that grow from stem tendrils. These plants will grow along the face of a building, the trunk of a tree, or happily crawl along the ground.

**Examples: Cissus & Boston Ivy**

## **Clinging Stem Roots:**

The last group of climbers use stem roots that cling to their surroundings. The roots grow as a stout cluster and attach to almost any surface. Be cautioned that removing these plants they may damage paintwork and mortar.

**Examples: English Ivy & Euonymus**



# Trellis Styles and Placement

There are endless variations of trellises and things to consider before building one in a garden. Placement of a trellis is key to keeping the plants happy and maximizing garden efficiency.

## Things to Consider Beforehand:

- Avoid placing trellis in windy locations and locations blocked by buildings that can damage your plants, prevent pollination, or destroy the structure.
- Place trellises in spots that do not shade other plants. Ideally a trellis should be placed along the north side of a garden.
- Match the trellis type to the plant you intend to grow. Nature can be rough sometimes so it is important to choose a structure that will endure the elements and support the weight of the plants.
- Anchor appropriately to protect from wind and support weight. Anchoring the posts about 24 inches deep will improve its stability.
- Be aware of weathering effects on the trellis material.



**Pyramid**



**A Frame**



**Cage**



**Staked Row**



## Materials:

1. 4 cedar 1X1ft pieces, 4ft long
2. 4X7ft Galvanized steel mesh, 4X4in squares (Inside dimensions of squares can vary.)
3. Zip ties



**For an instructional A- Frame video visit:**  
<https://youtu.be/z8lCYzGynNY>

## Other instructional trellis videos

**Trellis Planter:**  
<https://youtu.be/OzIiGWY9rDc>

**Teepee Trellis:**  
<https://youtu.be/rIzH91NkhkM>

# Constructing a Simple A-Frame Trellis

**Step 1:** Lay sheet of galvanized steel flat on the ground.



**Step 2:** Place two cedar 1X1s one square apart along one of the 7ft edges of the sheet. Wood will extend about 1ft beyond the sheet.

**Step 3:** Repeat step two on the other 7ft side using the remaining wood.

**Step 4:** Use zip ties to fix the wood to the sheet. Lock a zip tie at the top of each steel square.

**Step 5:** Flip the sheet over so it lies on top of the wood.

**Step 6:** Brace the inside steel gap between the pieces of wood and bend the wood up and inward to shape the A-Frame.

**Step 7:** Use a mallet or such to drive the legs into the ground until the mesh reaches dirt.