

How to Build a Caterpillar Tunnel



Why Build a Cat Tunnel

Most Economical Way to Extend the Season @ \$1.70 per sq. ft.

Allows for Early Spring to Early Winter Season Extension (Easily 33 week harvest window)

Allows one row of Vertical Growing

Keeps the Rain Off

Higher Quality Fruiting Crops

Cat Tunnel Drawbacks

More end wall management than a wider tunnel

More cold edges because of narrow tunnel

Curtain end wall management is time consuming

Less vertical growing space

Step One - Ground Posts

Cut 6ft X 1 5/8 Fencing Post Pipe in half. From the factory side of the pipe measure 11 inches and drill a hole through the pipe with a 1/4in drill bit.

Layout the Tunnel Corners. String end to end to guide where posts will land.

Posts can be 4-5ft apart.

Pound posts level 2 foot down (1ft should remain above grade and you must be able to see the hole drilled through the pipe).

Put 3ft. Ground Cover down by pulling the fabric over each pipe and burning a hole in the center of the fabric.

Step 2 - Bend the hoops

Bend the hoops using a post bender. Follow instructions that come with the post bender.

Bolt through the top of the pipes using 4in screw with the excess of the screw pointing down. Connect with nut.

Step 3 - Set the Hoops

Set hoops within the Ground posts. Be careful not to crimp the hoops. Gently push the pipes so they go in the ground posts. You do WANT the pipes to have outward facing tension so you should have to push the hoops in at least a foot or two.

Make sure the bottom of the pipes go past the drilled ground post holes.

Step 4 - Set the Purlin

Layout the center purlin on the ground next to one side of the ground posts inside the tunnel. Connect the length of the pipe with tech screws or bolt through. Then predrill holes in the center of each ground posts. Drill through with a 1/4in bit first. Then on what will be the top side of the purlin drill through with a larger bit ($\frac{3}{8}$ to $\frac{1}{2}$ in) so the purlin is easier to install to the bolt hanging from the center pipe.

Work with two other people to raise the pipe up and attach to the center bolt hanging below the hoops.

Use a fender washer and nut to attach.

Step 5 - Adjust & Bolt hoops to ground posts

Adjust the hoops within the ground posts as needed.

Drill through the predrilled holes of the ground posts so you are able to bolt through each hoop.

Do not put nut or washers on if you are doing a ground curtain.

Step 6 Ground Curtain

Cut Greenhouse film to 5 foot strips.

Use 1/2in conduit to attach the poly by attaching the conduit just above the ground post into the hoop using a tech 1 ½ in tech screw. You will need to pre-drill the conduit. The poly should be pinned to the tunnel in the center of the strip.

Fold down the poly over the pipe.

Punch through bolts through the poly (it will be two layers because of the fold) and then attach fender washer and nut. The bolt will have a ½ in of slack to it.

Secure an additional 3ft. Ground Ground cover strip on the outside of the tunnel over the poly.

Step 7 - Pull Poly

Secure 2 T-posts 5 ft. off the end of the tunnel on center. The “teeth” of the post should be facing each other. Pound 1ft deep with slight angle away from the tunnel.

Pull Poly the length of the tunnel as tightly as possible and form a “tootsie roll” wrap on each end.

Pull T-post apart and slip the wrap through the posts then wrap the end of the wrap through the posts a second time. Let the T-posts come back together to pinch the poly in place. Tie posts together.

Pound posts an additional foot in the ground to increase tension and to fully secure the T-posts.

Step 8 - Shoelace the Poly

Use Parachute cord to shoelace the poly in place by wrapping the cord around each through bolt on the inside of the fender washer.

Cord should be pulled tight but not excessively tight.

If poly is too loose you can pull on the cord and wrap around each bolt additional times.

Step 9 - Yee Yee

Yell a loud Yee Yee. You finished your Tunnel!