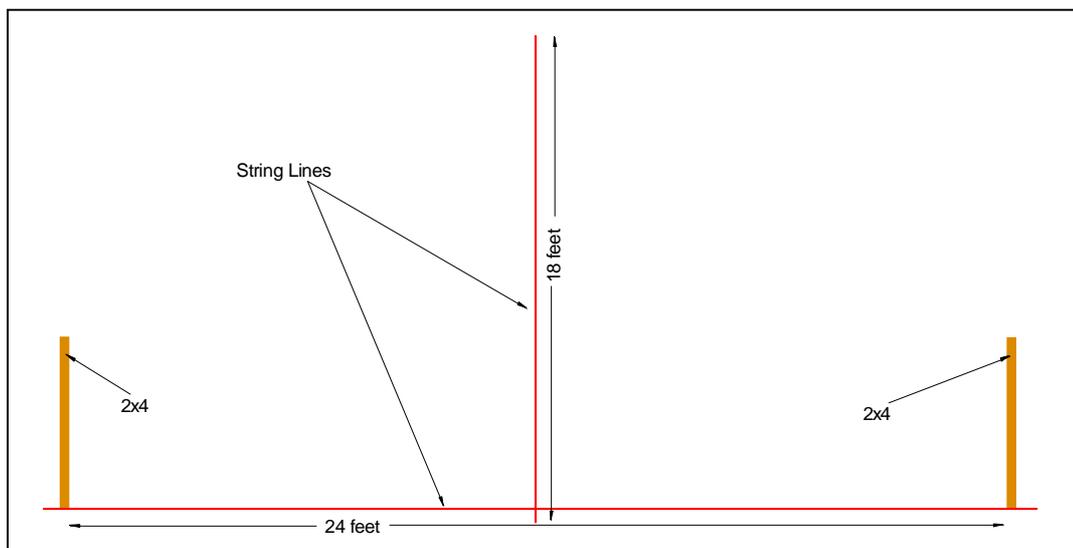


## The Compound Gothic Design

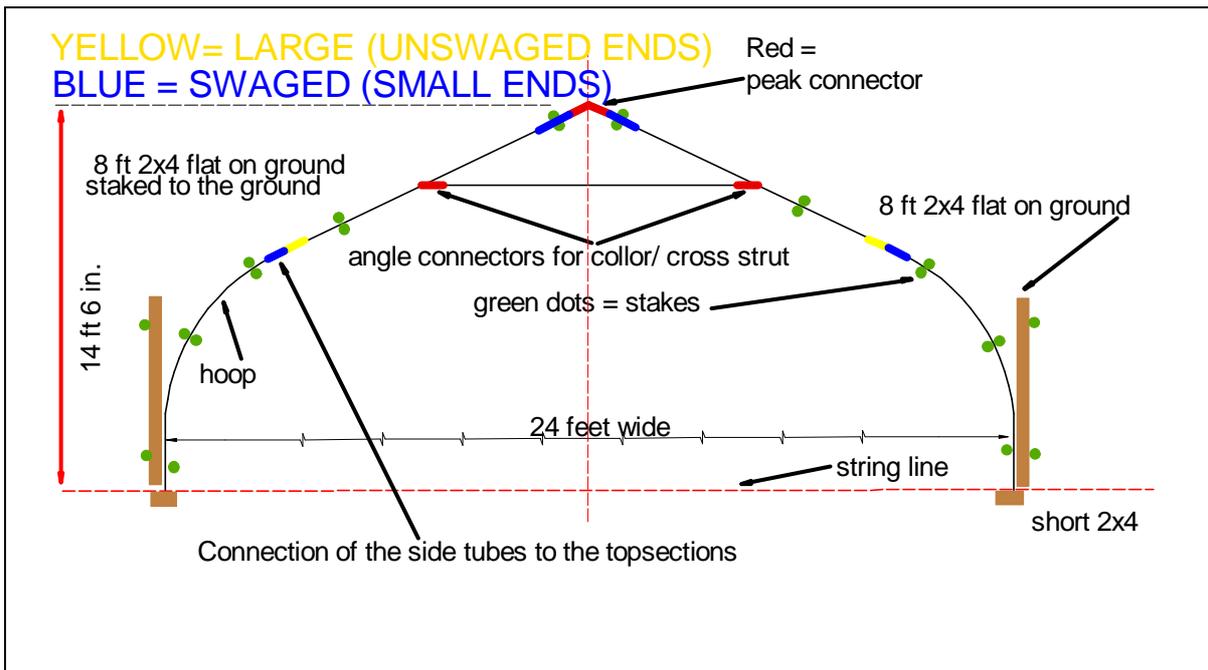


***You are building the Template Hoop, after it is completed all tubing can be precut and remaining hoops assembled on top of this template hoop, one at a time. Don't build and stack multiple hoops on top of the template***

This design allows for variable widths from 12' to 24' foot wide, to change the hoop width simply set up the 2x4s shown in the setup jig the width you want the hoop to be. The PF-12 Hoop Bender is used, or the C-12 can be used but will require one or two more bending strokes. If using the C-12 you may require purchasing the optional leg stand. First you must create the template (the first hoop). In this instance I will show how a 24 ft wide "high angle roof" is produced. Choose a level area outside, using a string line and two 8' long 2x4s set this layout



This drawing will help you understand the overall method of setting up the template hoop. All other hoops will be built on top of this template hoop, one at a time then removed set aside and so on. leave the template hoop undisturbed (Do not remove it from its position until all other hoops have been completed. This color coding is specific to this drawing only and is for the purpose of identifying parts locations and orientation. Other drawings may depict other color combinations along with written descriptions..



Simply set the 2x4s closer together for more narrow hoops, the distance between the 2x4s is your hoop width. You can still use the 18 ft vertical center line, remember the vertical center line must be exactly in the center between the 2x4s. This basic setup is the same regardless of how wide you wish your hoops to be.

Using two 10'6", 17 or 16 gage 1 3/8" OD fence tubing (top rail). measure 36" from the unswaged end (large end) and mark them both.

Slide the unswaged end through the holding strap stopping when the 36" mark (shown here in red) touches the holding strap.

Pulling straight down around the



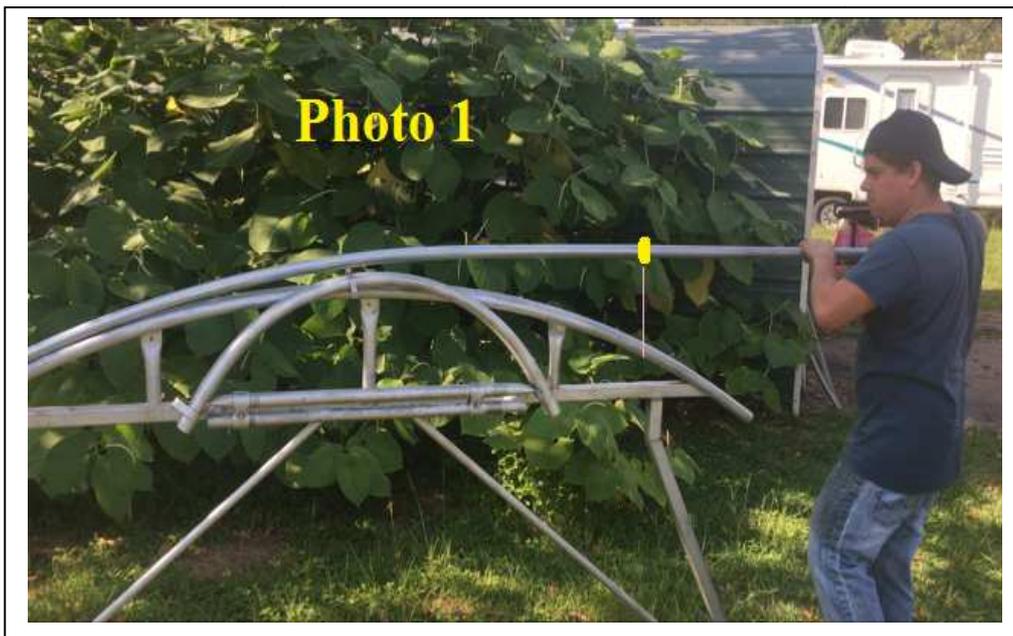
Stop when you can't bend any further



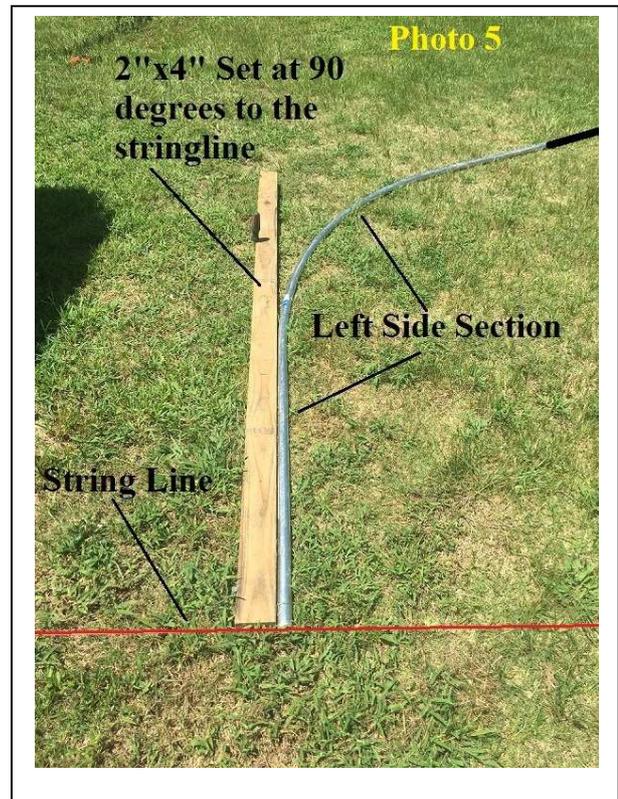
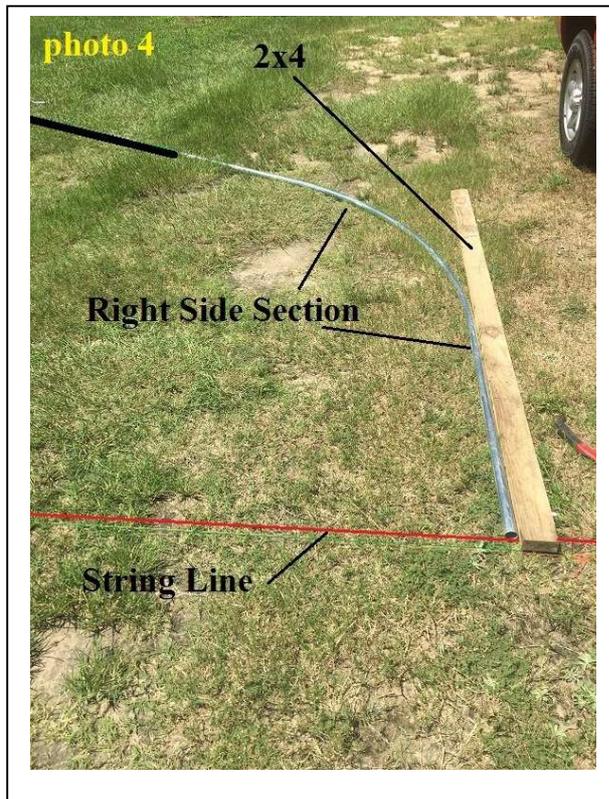
Add the lever bar to the swaged (small) end



With the lever bar added repeat the bending step but always stopping before the tubing reaches the end of the bender, release the pressure on the lever bar, slide enough of the tube through the holding strap so the junction (the point where the lever bar and tube are joined) is positioned above the bender as show in Photo 1, then repeat this last bending stroke until the junction (the point where the lever bar and tube are joined) touches the bender, the junction is indicated by the yellow mark in both photos.

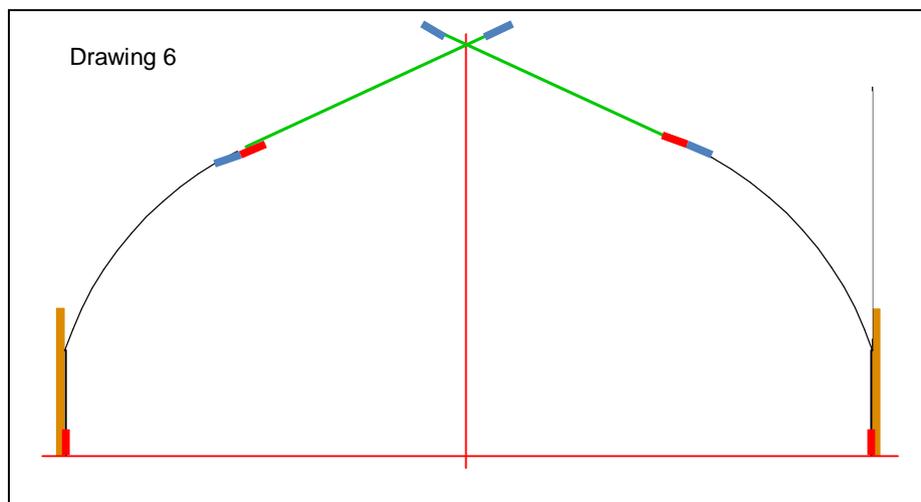


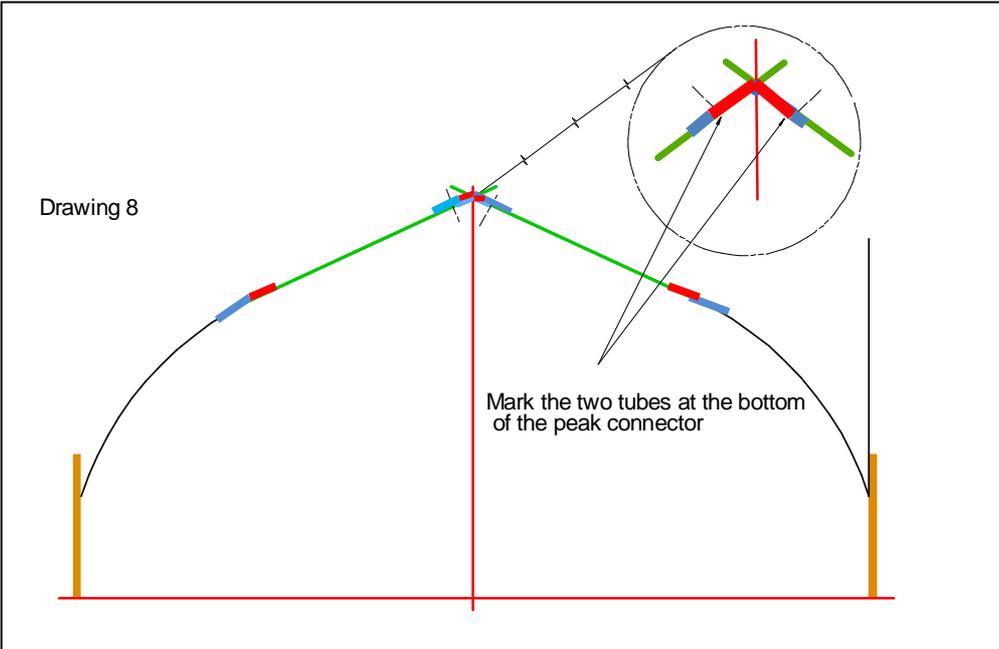
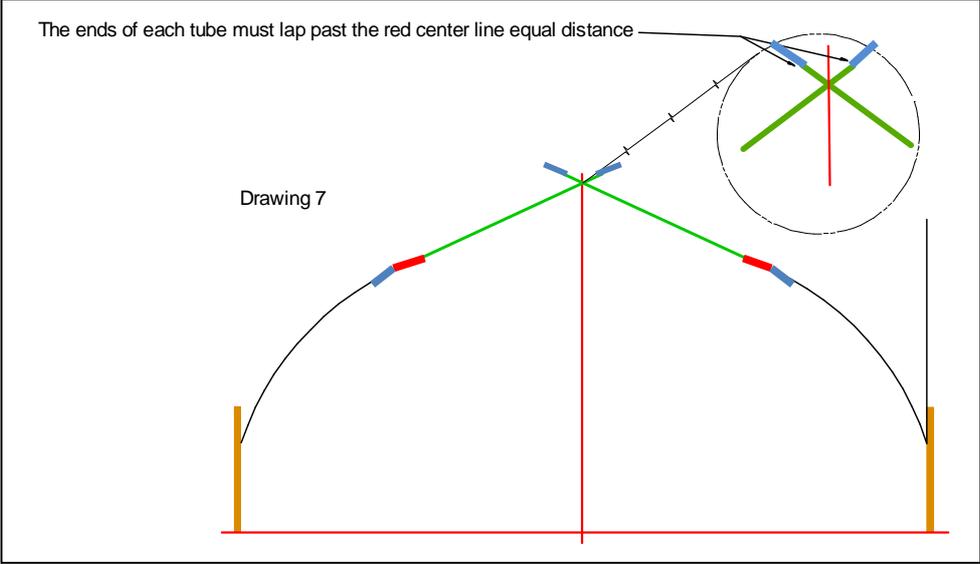
Position the two tubes you bent, one against the right side 2x4 and the other against the left side 2x4 as shown in photos 4 & 5

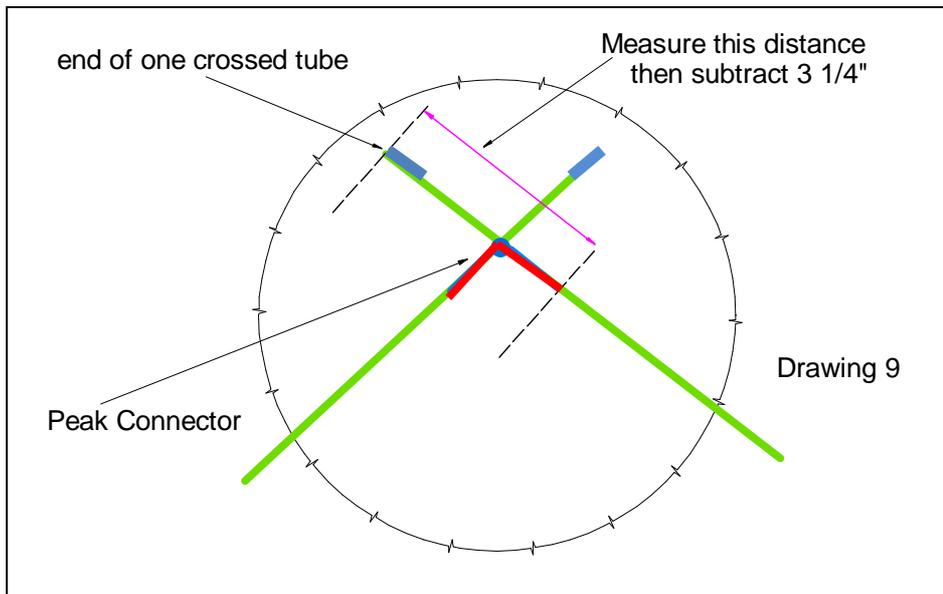


Now using two straight 10'6", 17 or 16 gage 1 3/8" OD fence tubing (top rail).

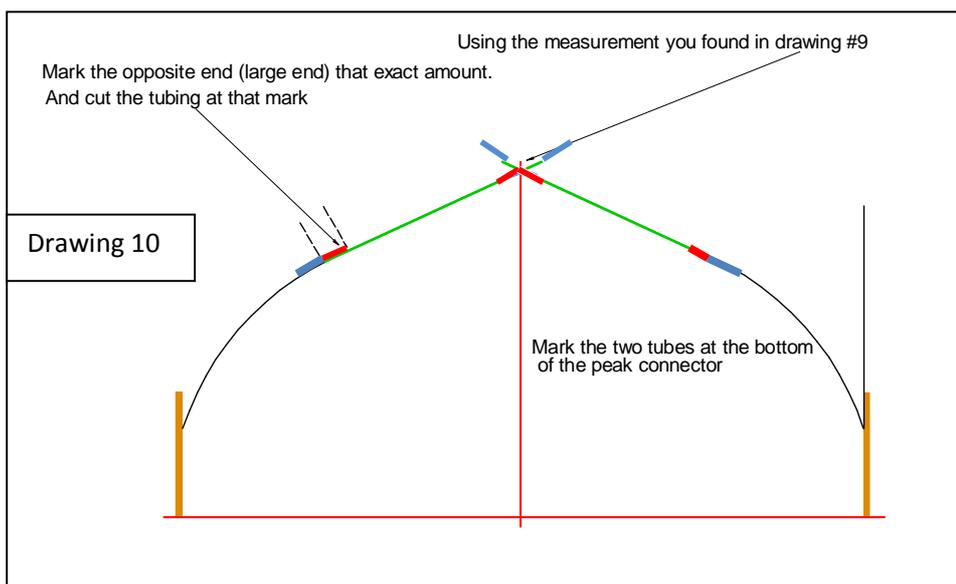
Slide the large ends of these straight tubes firmly onto the swaged ends of each curved side sections as shown in drawing #6 allowing the tops of these two tubes to cross over each other.







You must cut the excess tubing off of the large end, After the building this first hoop you can precut these in advance. The small swaged ends must be at the top which will then inserted into the peak connector. After cutting the excess off reinsert the swaged ends of the curved side sections back into the green upper sections, then secure all sections using 1 tech screw at each joint connection.



At this point your hoop should look like this. laying on the ground.

NOTE: All top sections for the remaining hoops can now be precut to the length determined on this template hoop.

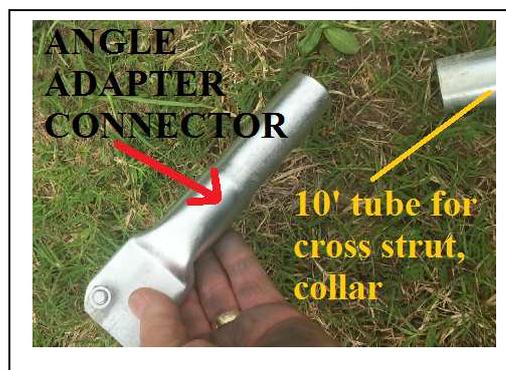


Now we install the Cross Strut or Collar

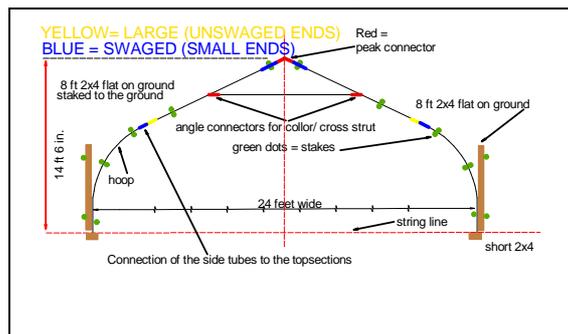
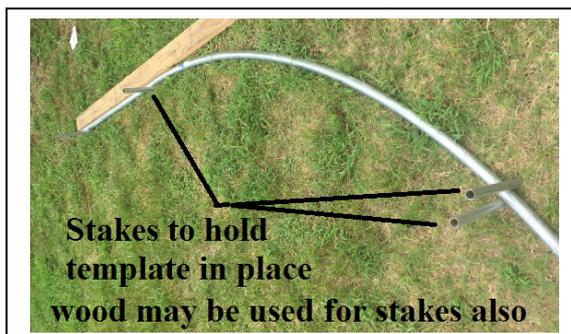
I'm using a 10' 6" length of 1 3/8" tubing with the swaged end cut off. I have put band clamps on each of the two top side sections I spread these out so they would go over the sections then squeezed them back together. But you can also slide them onto the sections before installing the peak connector.



Below are the components used to install the cross strut (collar), Band Clamps, Angle Adapter, and straight tubing without swaged ends.



After the template hoop is completed and meets your satisfaction drive stakes at key locations on both sides of the template hoop to keep it from moving. The stakes should be tall enough to allow holding & assembling the subsequent hoops on top of it. Green dots in drawing represent stake locations.



Do not remove this template hoop. The photo below is only to demonstrate how the hoop frame looks when raised into a vertical position.



Here is a side view of a 24x120 frame setup bolted to the 1 5/8" anchor post stakes and top purlin installed. The two side purlin have not been installed yet. Their relative locations can vary a foot or two from the location demonstrated in photo below.



Anchor post are made from 1 5/8" od fence post in 15, 16 gage wall thickness.

The post shown in this photo are being set up for a 12 ft wide hoop house, however anchor post are used in the same manner regardless of hoop width. Post heights above ground can range from 6" up to 36". If taller anchor post are desired you will need to use stronger post material. As we do not recommend going over 36", we do not offer any recommendations on materials that may be used for that purpose. Stakes can be driven into the ground or holes dug and anchored in concrete. We use post longer than we need and drive them in as deep as possible. This of course destroys the top of the post, but because we used longer post we simply establish a level line across all the post (below the damaged tops) and cut them off. Driving caps are available on some websites, however 26 years of experience has demonstrated to me the value of using them is minimal and usually results in having to cut them anyway.



Side purlins are attached at each end of the greenhouse using the purlin end adapters. Or you can make you own by flattening the end of the purlin, bending it upwards to about 30 degrees as shown in this photo.

