

Ledgewood Farm greenhouse construction

How do I Start?



to

I'm Finished!

Post layout



- The string will be 7" above the ground and the posts will be driven until the proper drill hole is at the string.

Spacing and driving posts



- Use the template to space the posts four feet apart and the large bolt to hammer the posts into the ground. Use a bar or drill to make a pilot hole for the post.

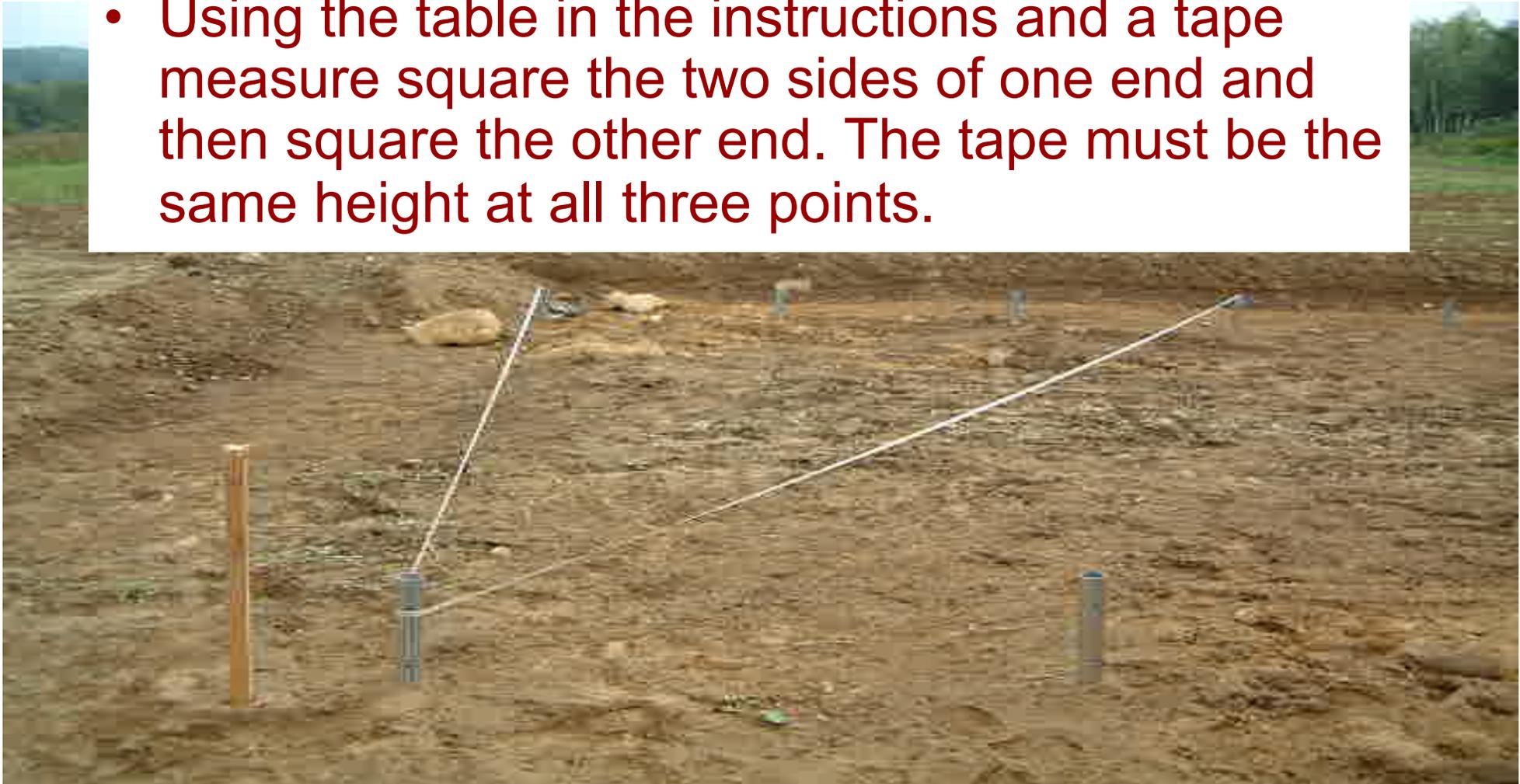
Level the two lines of posts



- Use a line level or laser to level the frame left to right so you have a level end wall. The frame can slope end to end over the length.

Squaring the greenhouse

- Using the table in the instructions and a tape measure square the two sides of one end and then square the other end. The tape must be the same height at all three points.



Squaring the greenhouse



- Check your measurements to make sure your frame is square before you pound all the posts.

Assemble the bows



- The three pieces of the bow are assembled on the ground, bolted with the 2-1/2" carriage bolts and then erected as a unit.

Assembling the 26,28, and 30 foot bows



Erecting the 14, 17, and 21 foot bows



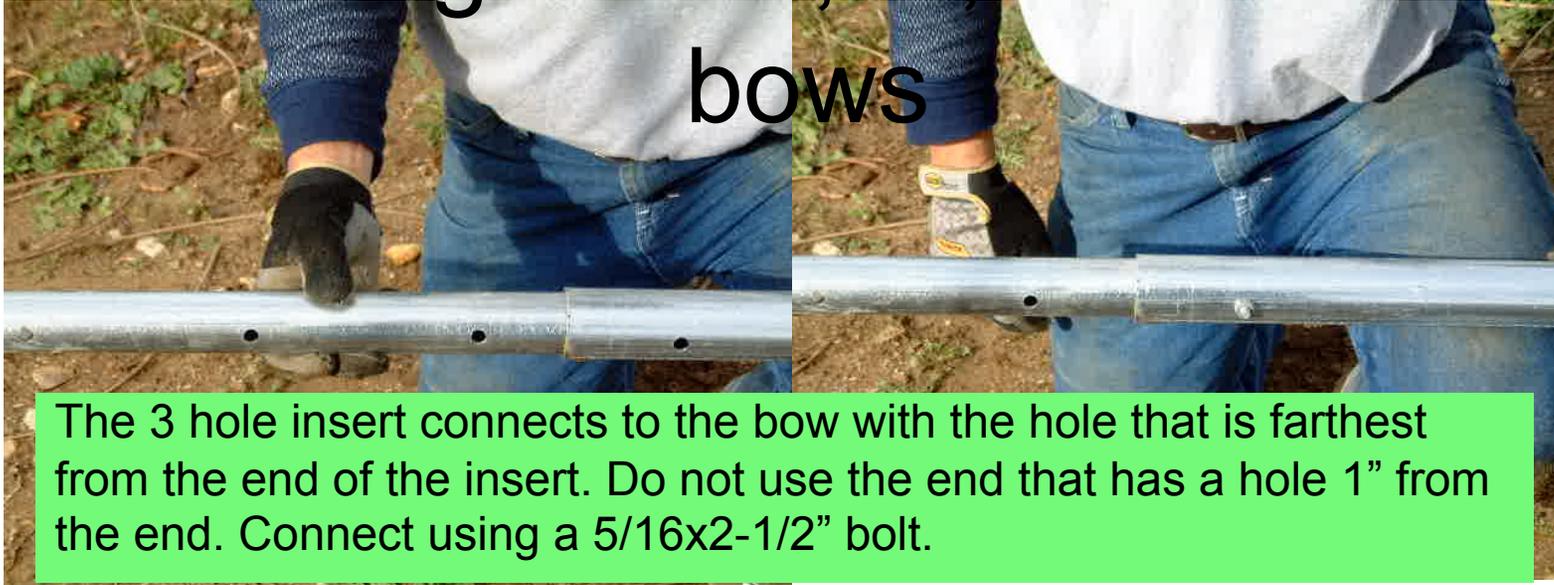
- A pair of vise grips or clamp is attached to the bow at the black mark. When the bow is lowered into the post the clamp will stop the bow at the proper depth. A nail is used to hold the bow in place until the baseboard is attached.

Finish erecting the bows



- Compress the bow and slide the other side into the ground post until the clamp stops the bow. Use the nail to hold the bow in place.

Erecting the 26,28,and 30 foot bows



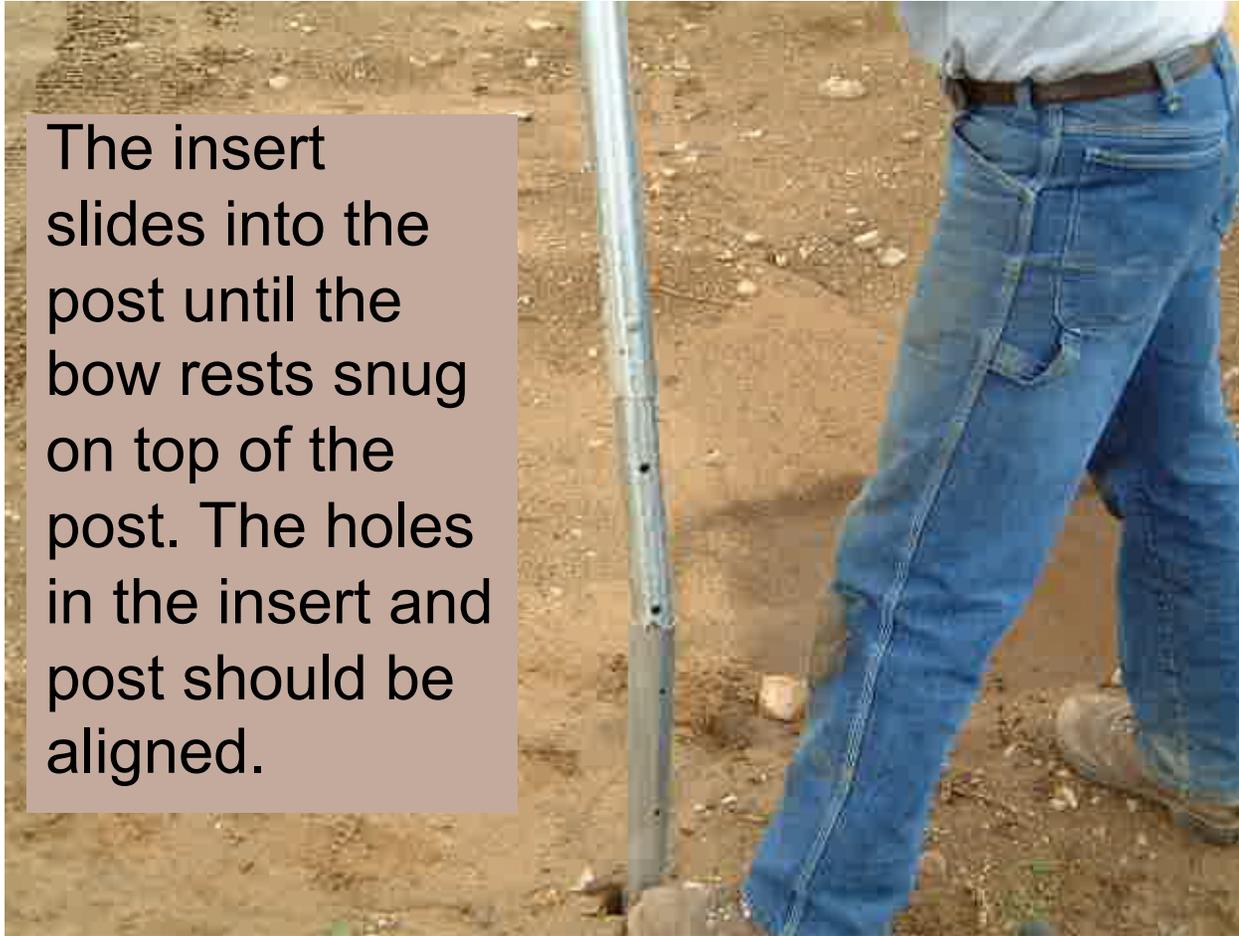
The 3 hole insert connects to the bow with the hole that is farthest from the end of the insert. Do not use the end that has a hole 1" from the end. Connect using a 5/16x2-1/2" bolt.



The tall 30 foot bow insert has 2 holes. One to connect the insert to the bow and one to connect the insert to the post.

26,28,and 30 foot bow connected to the post

The insert slides into the post until the bow rests snug on top of the post. The holes in the insert and post should be aligned.



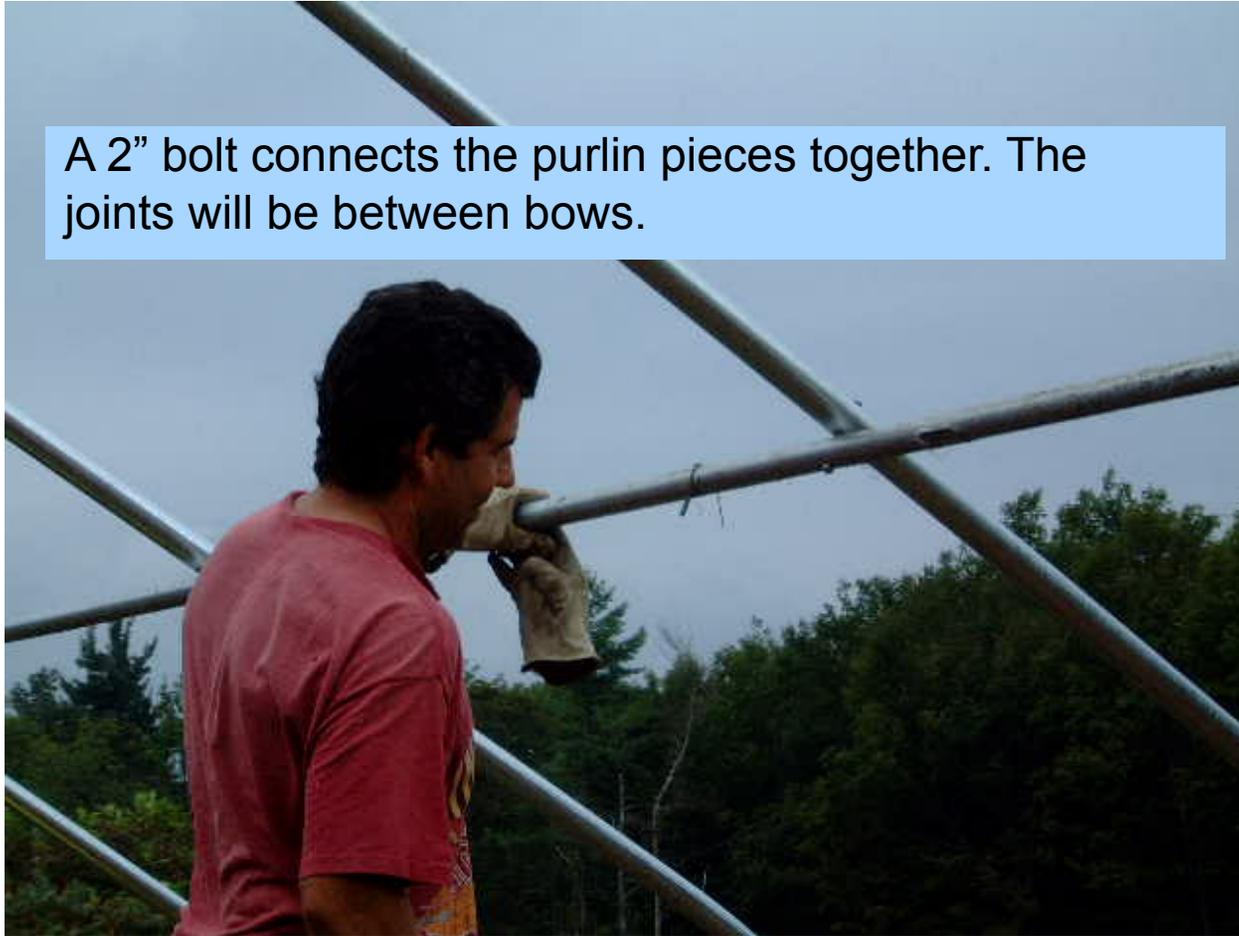
Installing purlins



- Install the lowest purlin on one side of the house. Start with the number 1 pipe from a bundle and bolt it in place. Then install number 2,3, and 4 etc.

Purlin joints

A 2" bolt connects the purlin pieces together. The joints will be between bows.

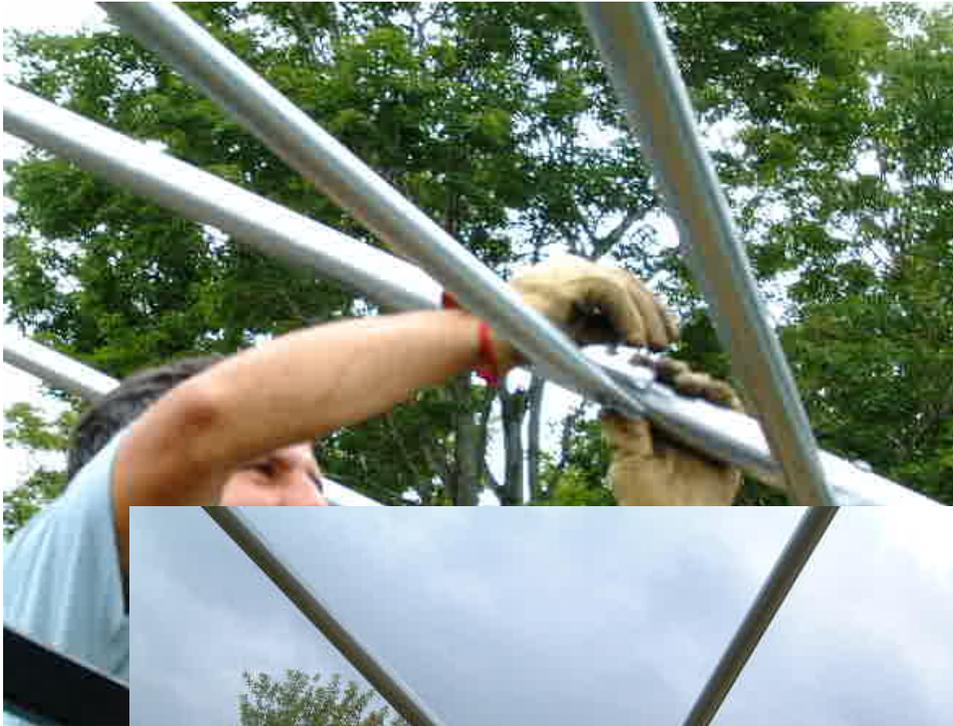


Install remaining purlins



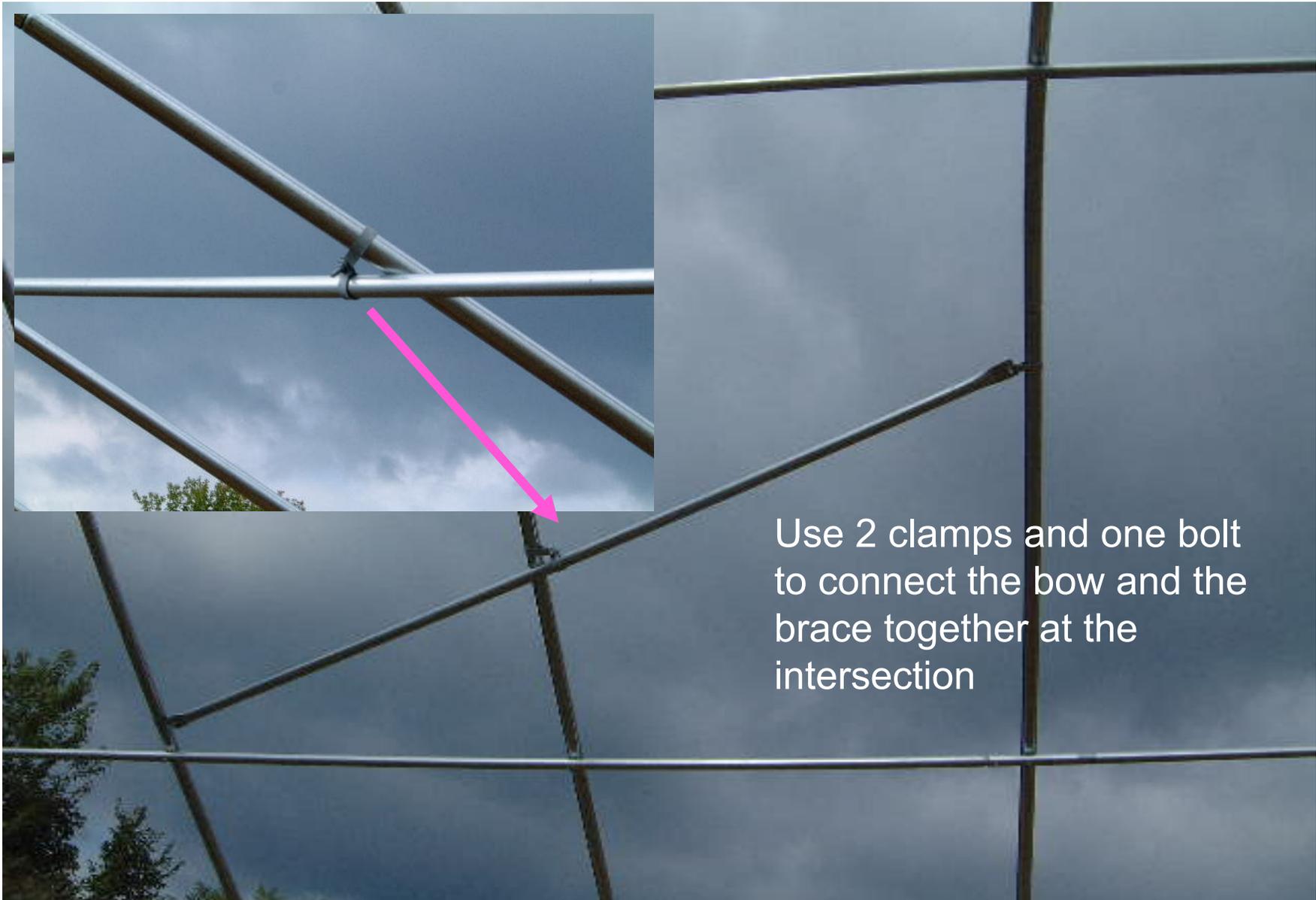
- The remaining purlins are installed from bottom to top. Always install the ridge pole last.

Corner brace installation



Clamp the lower end of a corner brace to the second bow using a long clamp, then pivot the corner brace so the other end can be clamped to the fourth bow with another long clamp.

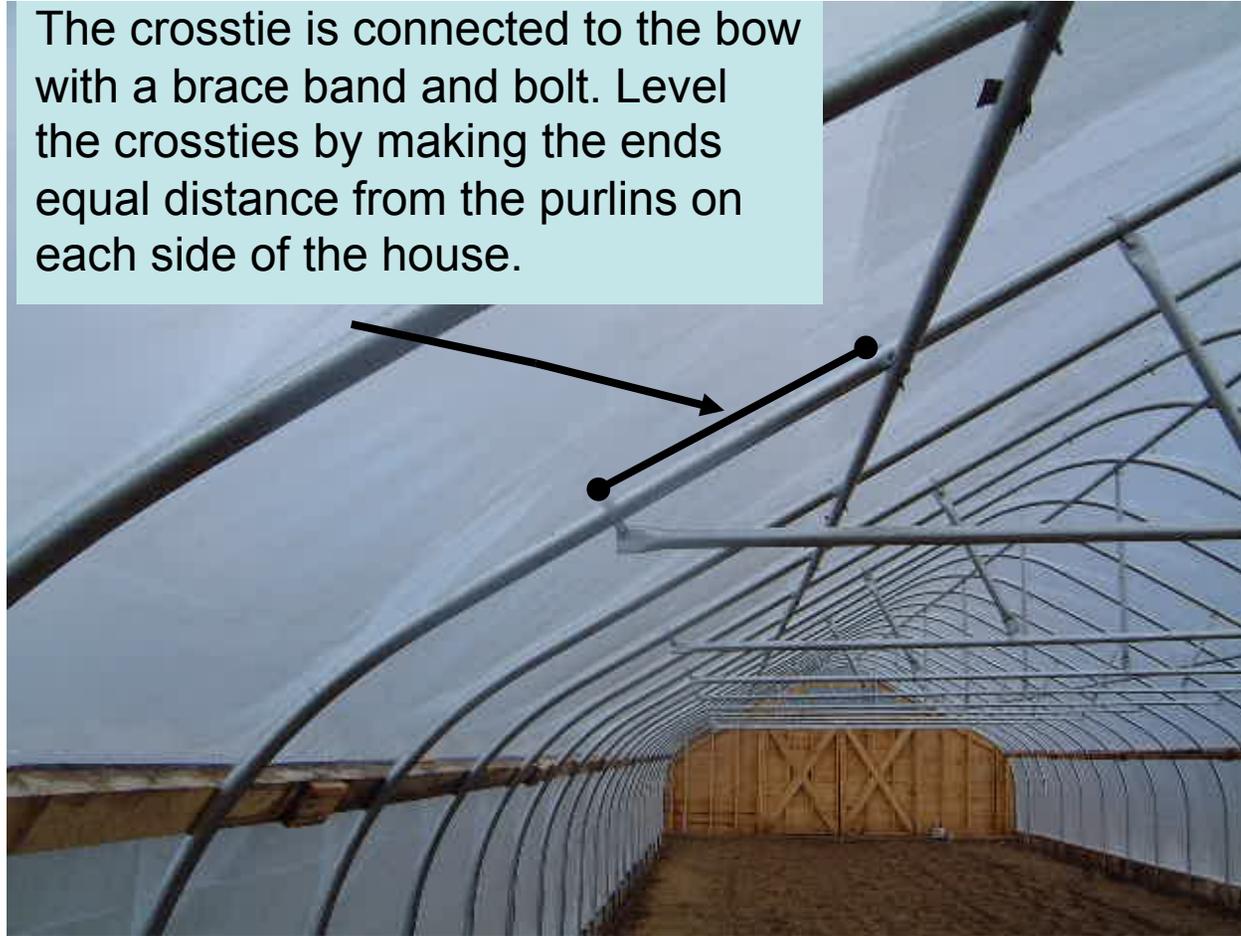
Finishing the corner braces



Use 2 clamps and one bolt to connect the bow and the brace together at the intersection

Crossties (if you have them)

The crosstie is connected to the bow with a brace band and bolt. Level the crossties by making the ends equal distance from the purlins on each side of the house.

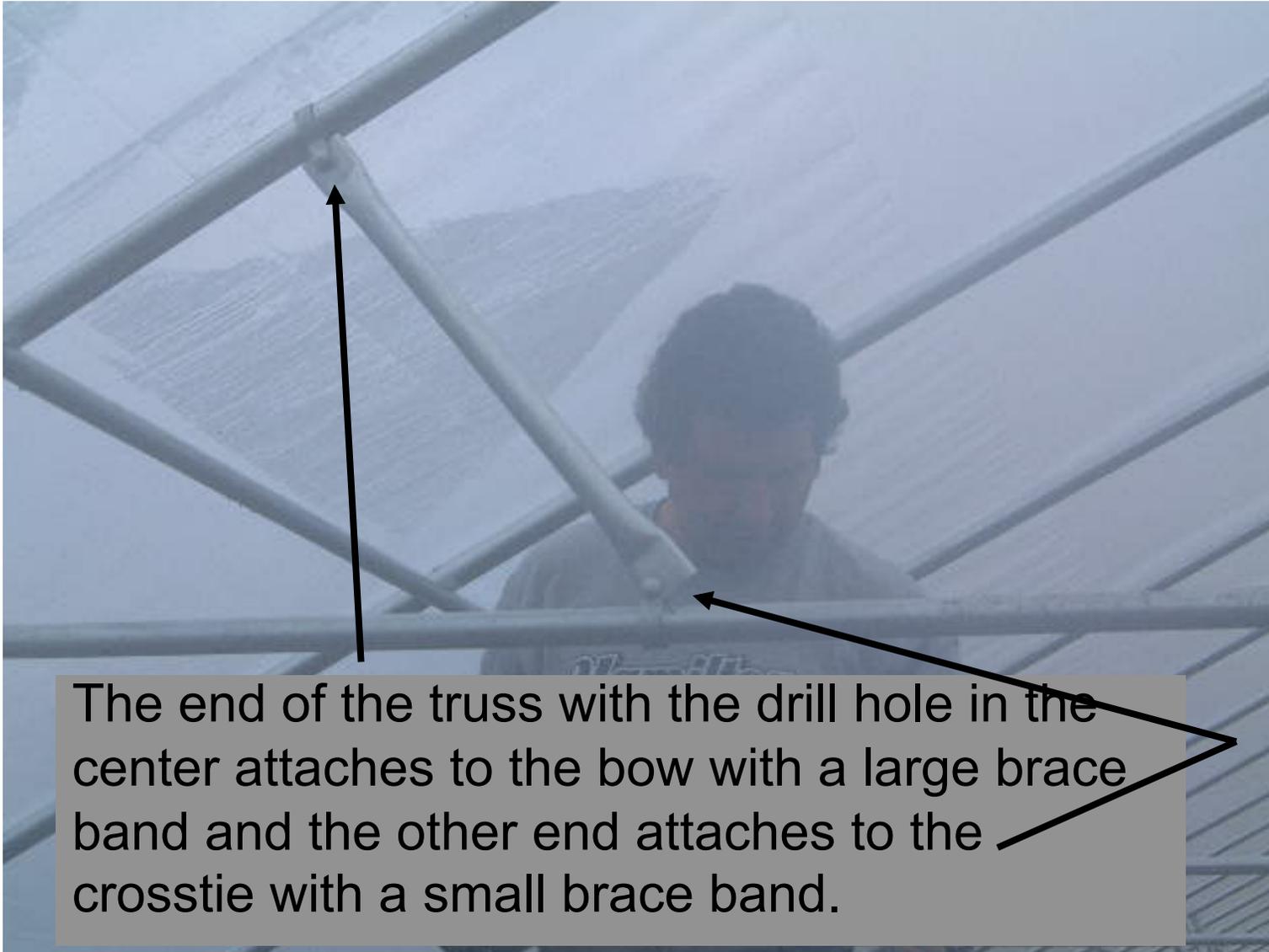


Crosstie and drops



Connect the drop to the crosstie using two small clamps. One attached to the ridge purlin and the other around the crosstie.

Adding the trusses to the crossties



The end of the truss with the drill hole in the center attaches to the bow with a large brace band and the other end attaches to the crosstie with a small brace band.

Baseboard

Mark the post so the baseboard is about 2" into the soil and the top of the board is straight the length of the house.



Dig the soil out of the way so the top of the board will line up with the marks on the posts.

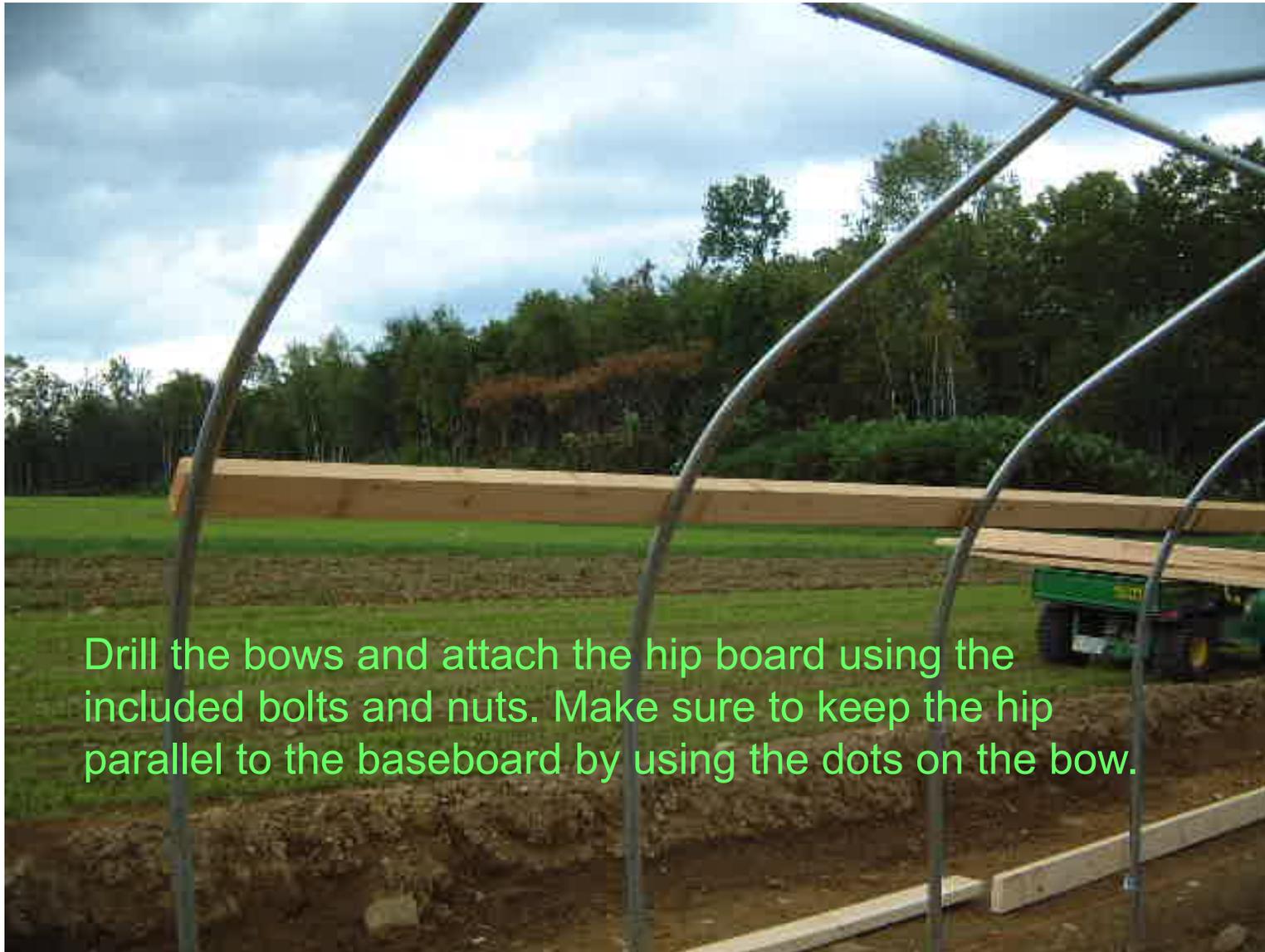
More baseboard



Use a second layer or one wide plank. Connect the joints with pieces of board.



Hip board for roll-up sides



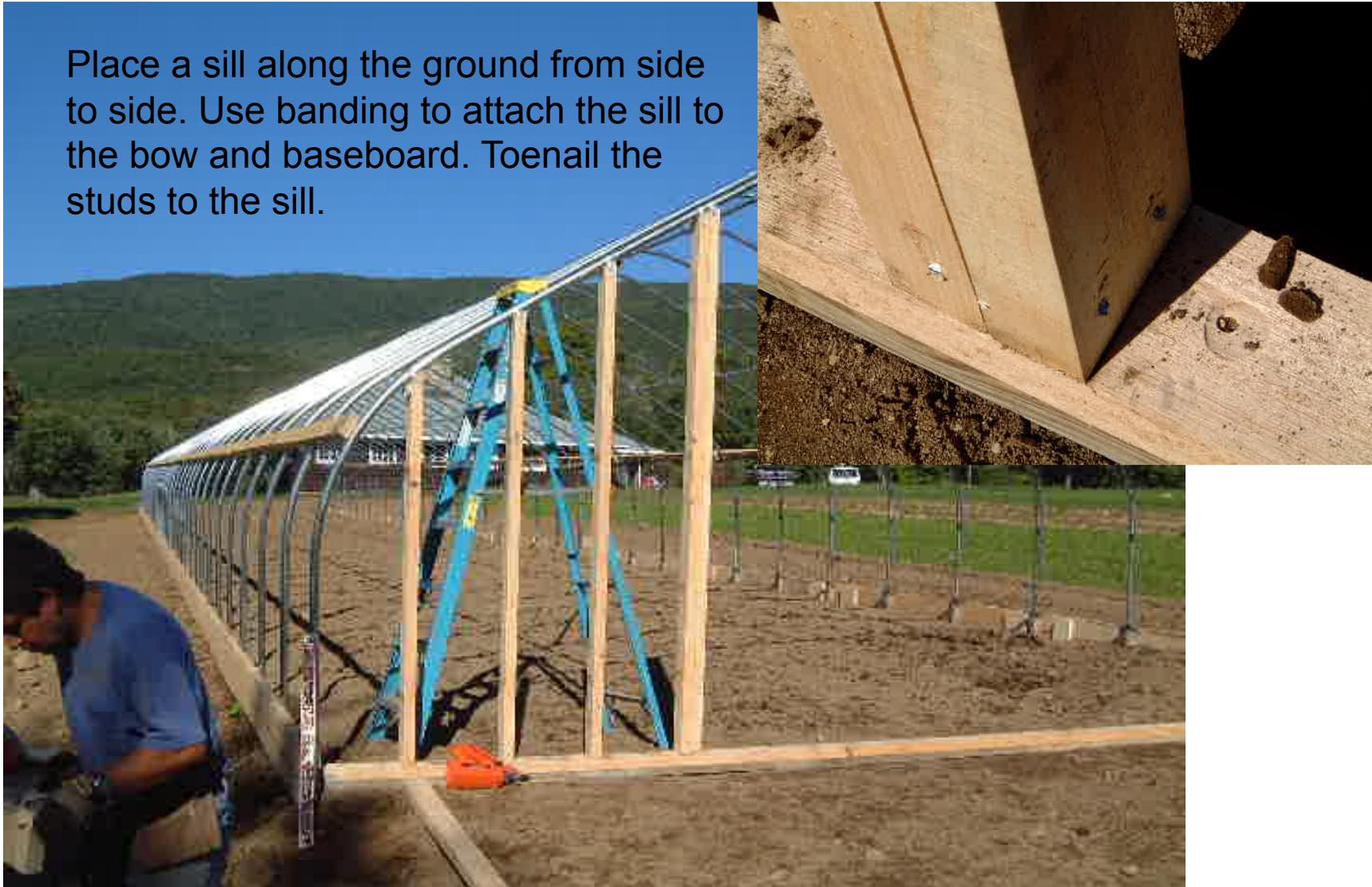
Hip board and attaching poly



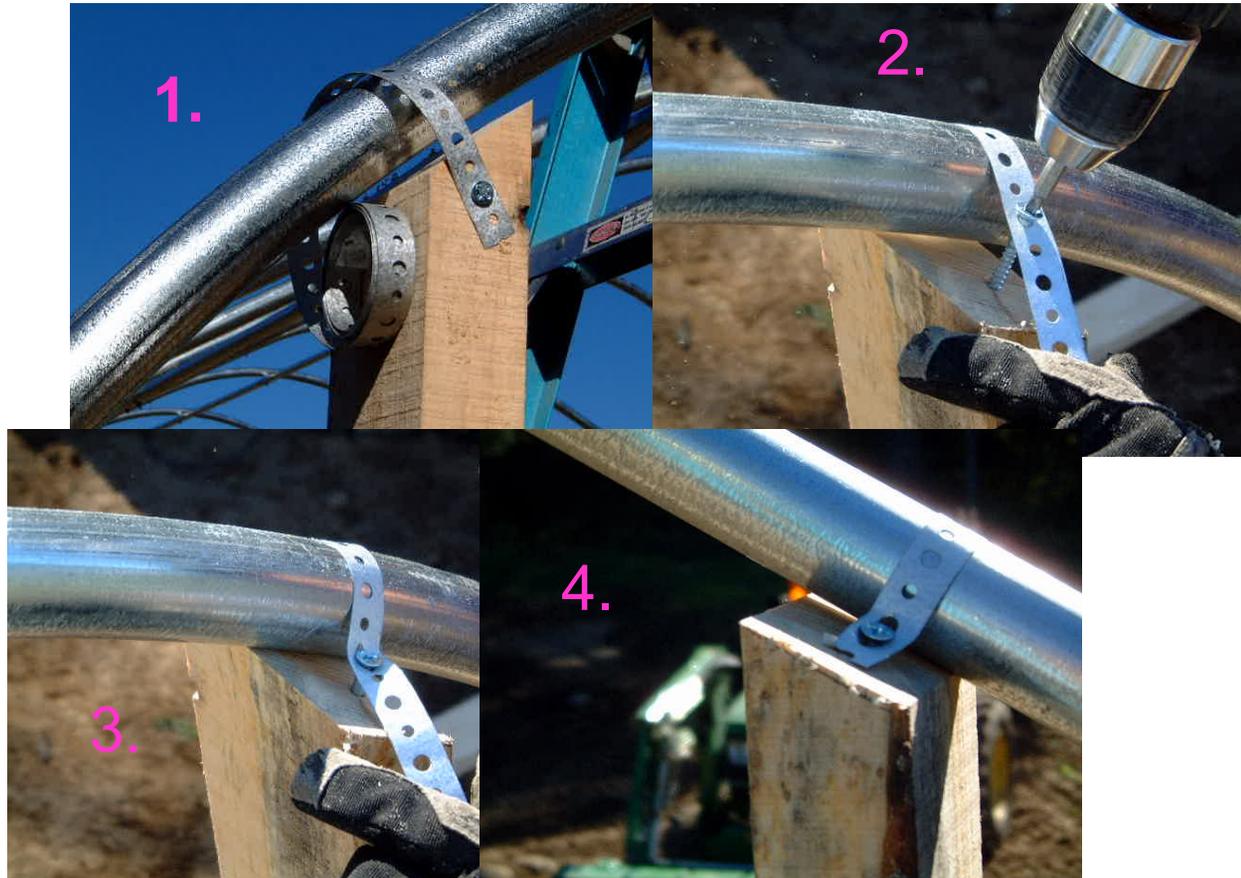
This piece of wood helps with snow and rain shedding.

Starting the end walls

Place a sill along the ground from side to side. Use banding to attach the sill to the bow and baseboard. Toenail the studs to the sill.



Metal banding to attach studs



Attach the banding with one screw on the outside of the stud, then wrap the banding over the bow and attach the band to the top of the stud.

Finish the end wall



You may use any material to finish the ends. Poly, clear structured sheets, boards, or plywood. I often use plywood as it is fast and durable.

How about doors?

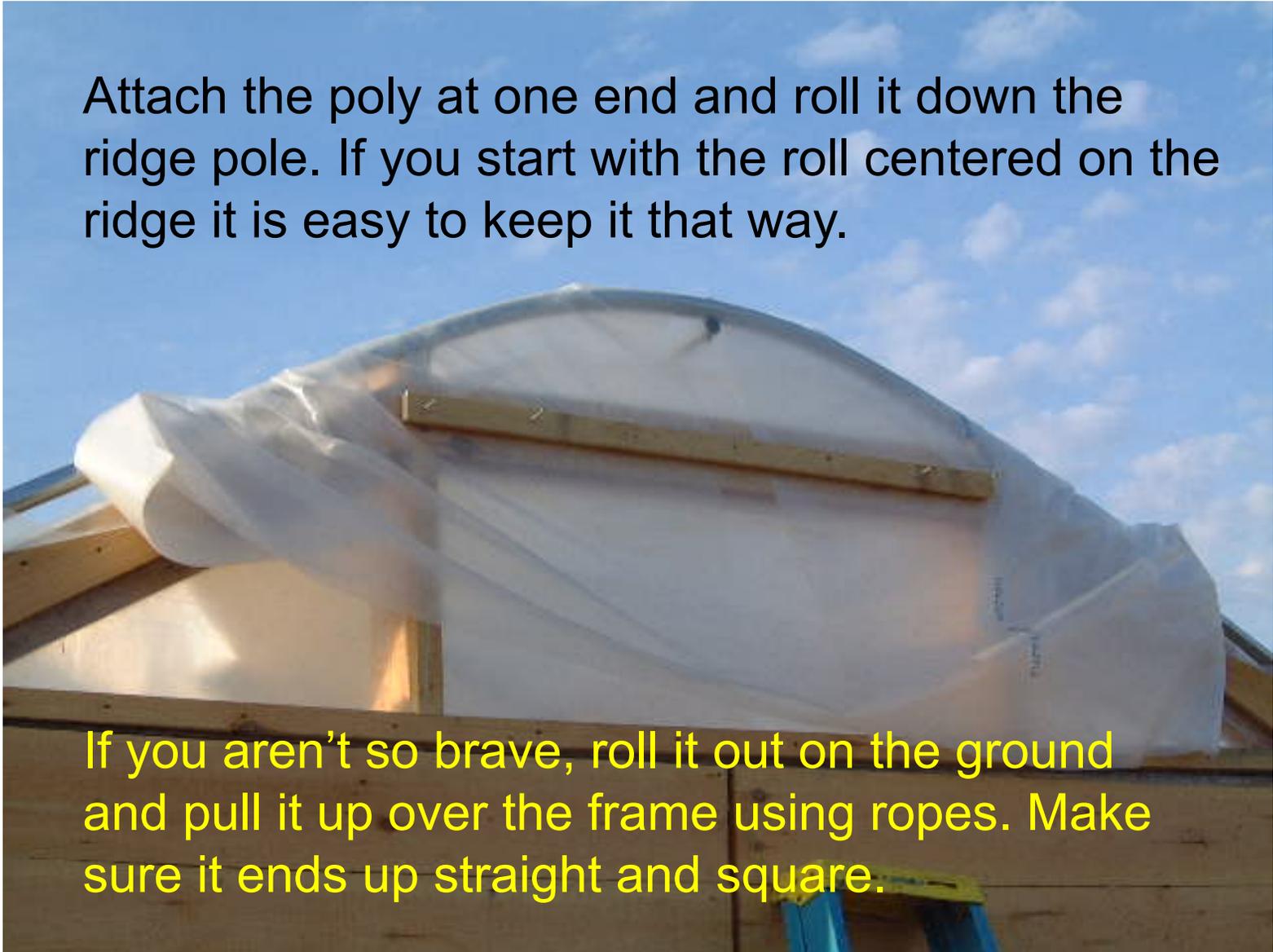


Any door size will work, I like two 4' by 8' doors for a large opening so a small tractor fits inside. A simple, yet secure latch is made from 5/16 inch steel rod and a block of wood.

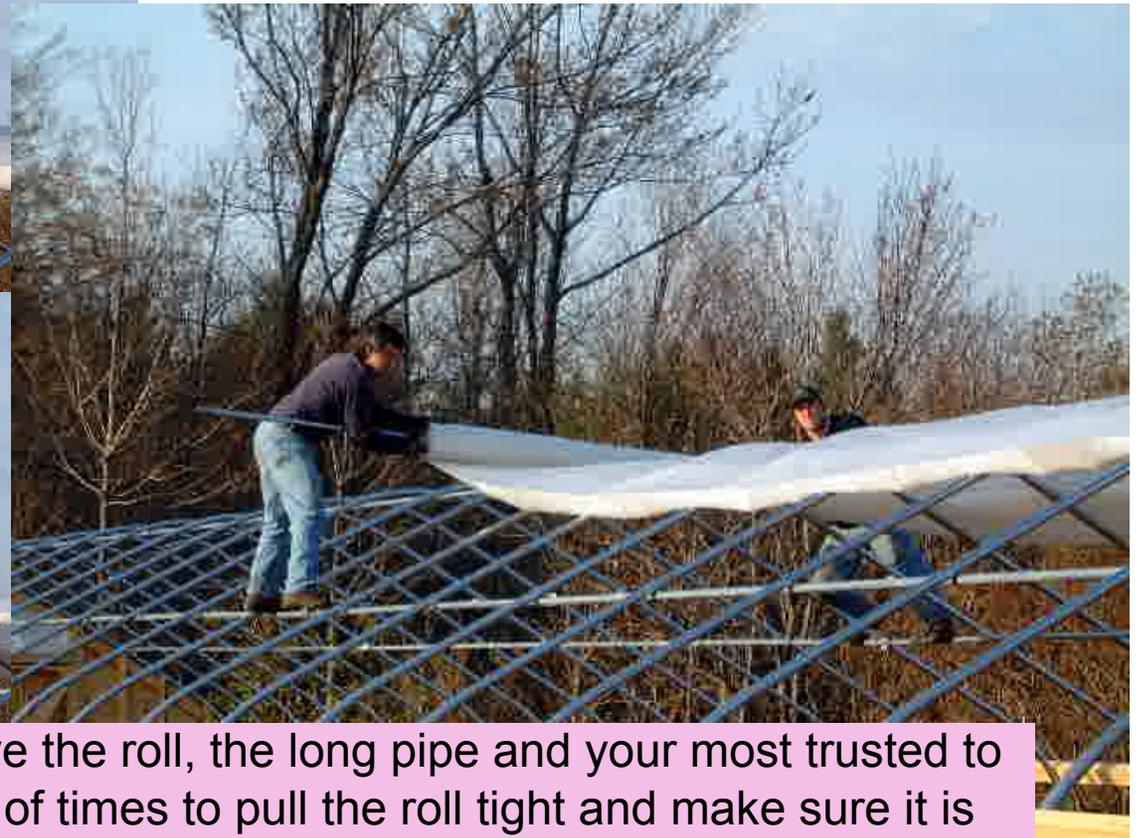
Are you ready for the poly?

Attach the poly at one end and roll it down the ridge pole. If you start with the roll centered on the ridge it is easy to keep it that way.

If you aren't so brave, roll it out on the ground and pull it up over the frame using ropes. Make sure it ends up straight and square.



Here we go!



It really isn't too scary! You have the roll, the long pipe and your most trusted to provide stability. Stop a couple of times to pull the roll tight and make sure it is centered. Did you tighten all of the bolts?

Cleats ready to attach



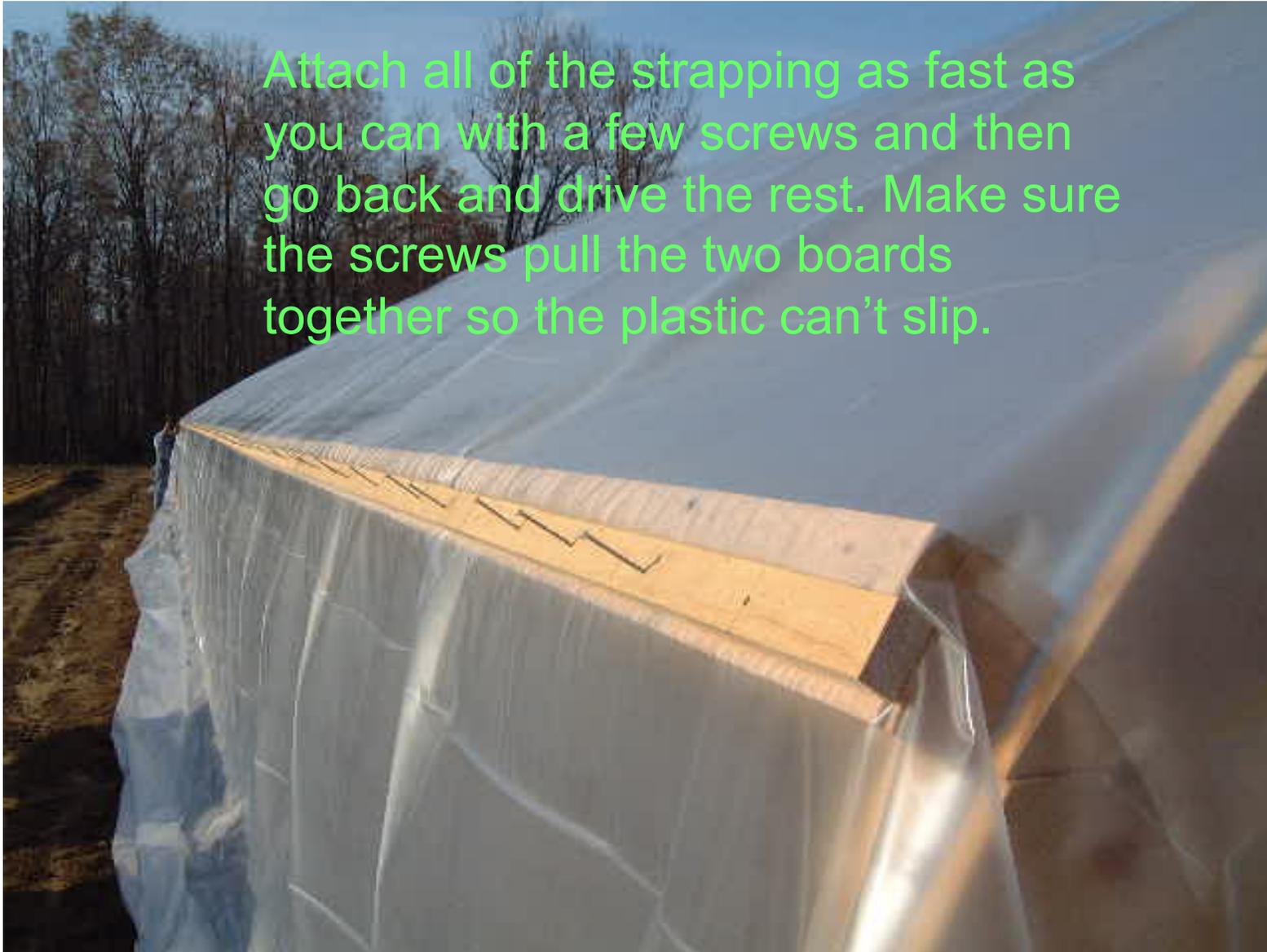
Spread out the poly



The poly should be pulled straight, square, and comfortably snug.

Attaching the strapping

Attach all of the strapping as fast as you can with a few screws and then go back and drive the rest. Make sure the screws pull the two boards together so the plastic can't slip.



Like this

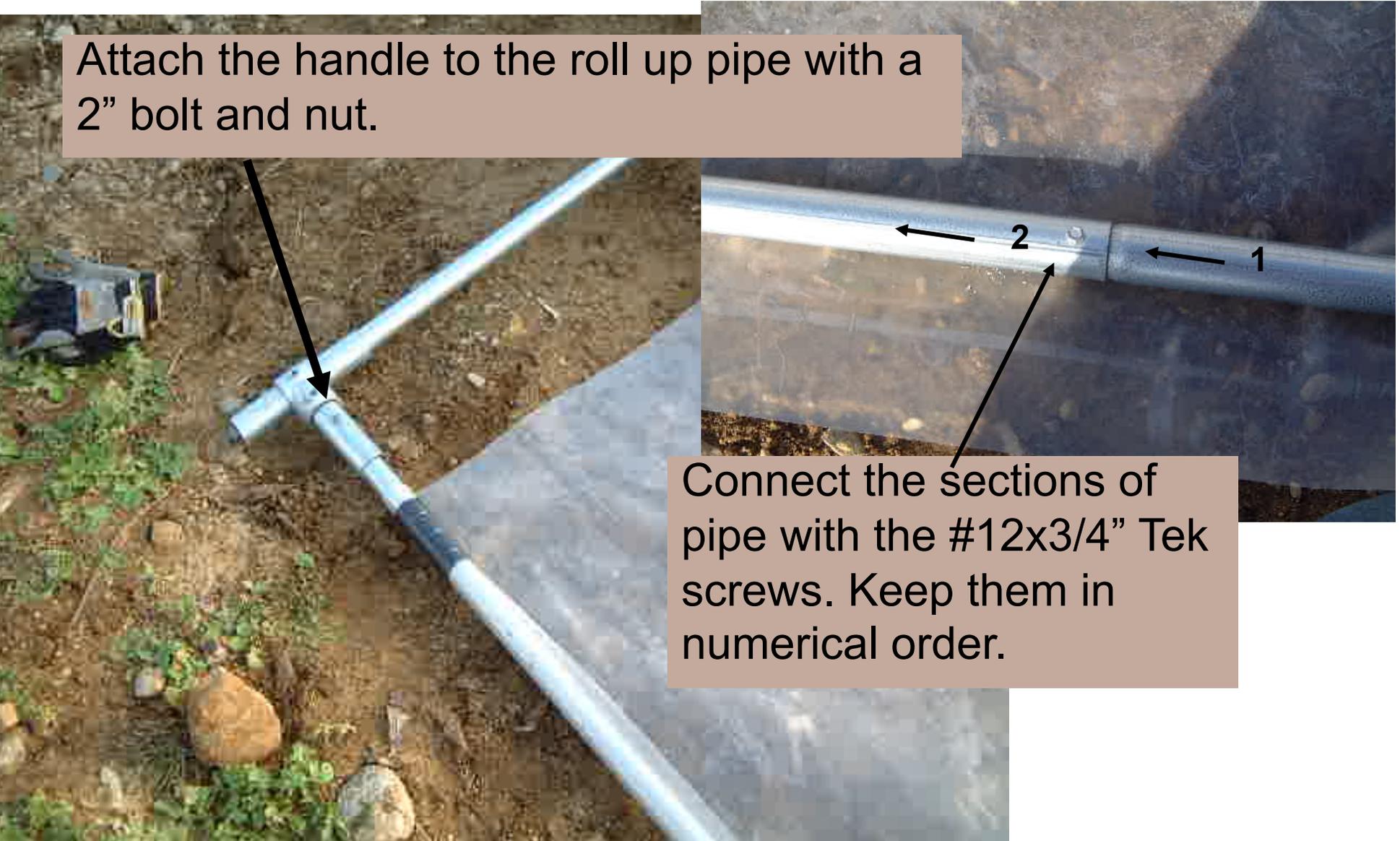
It takes less than ten minutes to finish each side.



Roll up side installation

Attach the handle to the roll up pipe with a 2" bolt and nut.

Connect the sections of pipe with the #12x3/4" Tek screws. Keep them in numerical order.

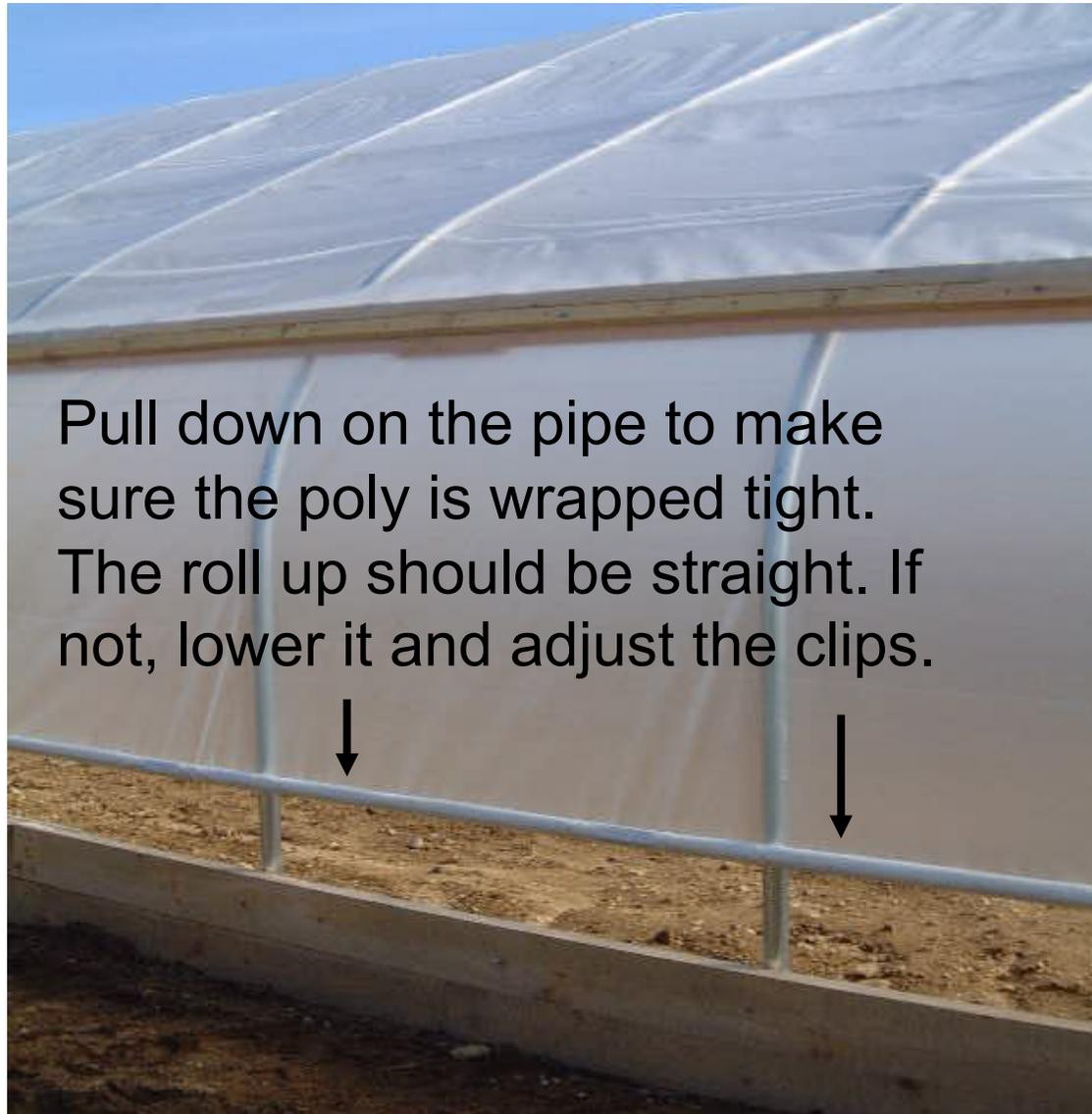


Attach the poly to the roll up pipe

Roll one wrap of poly around the pipe and put a clip onto the pipe. Be careful to keep the poly straight as you proceed the length of the house. The roll up will be perfect!



Make sure roll up is straight



Drill holes for bolts or attach lag eyes



Attach the bolts or eyes about midway between two bows. The bottom bolt will be about 3" below the top of the baseboard and the top bolt through the poly cleat. The ropes will be located every other bow, starting at the end bow.

Attaching the ropes

Rope attached to the hip board bolt



and to the baseboard



...and we're finished!



Time to wake up!

