

Hoophouses Hempstead

24' x 60' hightunnel

44 - 10'6" x 1 3/8" diameter bent pipe to make 11- 24' hoops

12 - 1 3/8" pipe for purlins

12 - 1 3/8" pipe for side curtains

22 - 30" x 1 5/8" ground posts

180' wire lock and channel

100 #12 x 1" tek screws

8 - 3/8" x 3 1/2" carriage bolts and nuts

8 - 1/4" x 3 1/2" machine bolts and nuts

4 - 1/4" x 6" carriage bolts and nuts

36 u brackets

18 purlin clamps [chain link fittings.com](http://chainlinkfittings.com)

120' 2x6 for hip board

168' 2x6 treated for base rail

44' x 65' 6 mil 4 year gh plastic for top

12'x50' 6 mil 4 year gh plastic for ends

30 metal film clips for rollup

110 yards batten tape

4 Chain link fence 90° connectors

end walls:

4 - 4x4 x 12 treated

2 - 2x4x16

4 - 2x4x8

16 - 1x4x8 for doors

Step 1 – Ground Stakes

- Measure 60' long and square off a 24' end wall. To make it a true 90° measure 32' down the long side, 24' across the end wall and the hypotenuse should be 40'. Take all measurements to the outer edge of pipe. If the house is square, corner to corner measurements should be 62' 6 1/2". When you are squared lay a tape measure the length of the greenhouse on both sides. You should use a string tie it to a ground stake and stretch it completely around all 4 corner stakes (make sure the string is pulled tight). Now you can mark the ground every 6 ft below the string. This is going to give you the 6 ft spacing for the ground stakes. Use the string to keep your ground stakes in line. The stakes should be driven in 24 inches if you damage them you can cut off the damaged portion

Step 2 – Hoop Assembly

- Place bow sections on level ground.
- Slide sections together, and secure at joints with self-tapping screws or weld
- Measure up each end of bow 10" or 12" and make a reference mark. The mark is how far the bow goes into the ground stake.

Step 3 – Bow Installation

- After bows have been assembled, raise upright and place ends in ground stakes to the reference mark and attach with tek screws.

Step 4 – Purlins

- Install two purlins
- The straight purlin pipe sections connect together with self-tapping tek screw.
- The ends will be attached with an end rail clamp. Put one tek screw in each pipe.
- The purlin clamps are used to attach the remaining bows. Measure the spacing so the hoops are straight.

Step 5 – Base Boards

- Attach base boards (2 x 6 pressure-treated recommended) at the bottom of the sidewall with 2-hole pipe straps or carriage bolts. It will make everything easier if the baseboard is level. Sometimes, due to the terrain that is not possible.

Step 6 - Hip Boards

- Mark the height of the rollup curtains, usually 3' - 5' up from the top of the baseboard. Hipboard must be level, even if the baseboard is not. This is necessary for the rollup curtains to function.
- Attach hip boards (2 x 6 pressure-treated recommended) at the marked location with 2-hole pipe straps or carriage bolts.
- Add a vertical 2x4 on each end connecting the hip board to the baseboard.

Step 7 - Wiggle wire

- Pre-drill the wiggle wire channel every 16''

- Attach wiggle wire channel with 1 1/4" wood screws about every 1" from the top of the hip board.
- Bend wiggle wire channel along the top of the two end hoops and attach with tek screws every 16". Carry the channel down the end board to the ground.

Step 8 - End walls

- On each end sink the two 4x4s a foot in the ground on each side of the door and bolt the top to the end hoop.
- Frame as necessary for your door and window configuration.

Step 9 - Plastic

- Cover the end walls first lapping over the hoops and attaching with small 1' pieces of wiggle wire every 3 feet to hold it in place.
- Use batten tape, staples and roofing nails to secure the plastic to the wood.
- Cover the hoops. It is best to do this with little or no wind. If there is a breeze start at the windward side. Throw three or four ropes over the purlins from the downwind side to the windward side. Attach to the plastic using something like a tennis ball to tie around it. If you have four people all pull at the same time, if not, alternate from one rope to the other, tying to the hip board temporarily as you move. Once in place, adjust the plastic to remove wrinkles. Attach to the end hoops and the hip boards with wiggle wire. Start with the top of each end hoop and then attach to the hip boards before finishing the end walls.
- The plastic should come to the ground on both sides for the roll ups

Step 10 - Rollup sidewalls

- Connect six 1 3/8" pipe sections together for the bottom of each rollup.
- Wrap the plastic around the pipe and attach with the pipe clips every 5'. The pipe should hang level and on the ground
- Put the 90° connector on the end you want to roll up from and attach an 18" - 24" piece of 1 3/8 " pipe for a handle. Once rolled up you can slide a longer pipe on the handle and anchor it to the ground. Tek screw each connector
- Roll up and down carefully. Never just release the handle and allow it to fall.