"Hoop House" Glides Open And Closed

Vern Harris likes setting up hoop houses over his vegetable beds, but he doesn't like the hassle of working under them. Most designs require lifting the plastic sides to get at the produce. So, Harris came up with hoops that glide on rails, making access as easy as pulling on two ropes.

Harris lives in Northwestern Washington State where winter temperatures are commonly in the 30's and 40's so hoop houses make year-round gardening possible.

Harris builds his garden beds from 8-ft. long, 2 by 6-in. untreated fir. The main component of the hoop house is schedule 40 pvc pipe. The rails the house slides on are 3/4-in. diameter pipe. The hoops are 1/2 in. diameter. They fit into 1-in. diameter tees that glide over the rails.

"I needed to raise the rails slightly above the bed sides so the tees can glide down the rail," says Harris. "To get the height, I predrilled holes through the pipes and set 1/2-in. long pieces of 1/2-in. aluminum tubing under the holes. Screws driven through the holes and through the tubing secure the rails in place."

Harris then sliced away the bottoms of each hoop tee. This allows them to slide down the rail and past the aluminum supports. He also extended the rails about 18 in. past one end of the bed so all the hoops could be pulled to that end, exposing the entire bed to the sunlight. A piece of 3/4-in. pipe was attached to the rails at the overlapping end with 90° angle connectors.

After placing 5 tees in place on each rail, Harris inserted a 9-ft., 1/2-in. pvc pipe in a tee on one side and then bent it to fit the other end into the opposing tee. He predrilled holes for attaching the plastic. Harris advises using Dura-Film Thermax or another high quality film recommended for hoop houses.

"I cut a plastic sheet to 9 by 10 ft. and attached it to the hoops with the 9-ft. side running the length of the 8-ft. bed and hanging over each end by 6 in.," says Harris. "The 10-ft. dimension was fastened so edges overlapped hoop ends by 6 in. I used 1/2-in. lathe screws with washer heads to help prevent tears and leaks."

To enclose the ends, Harris cut two 4 by 5-ft. pieces of plastic. He attached one to the hoop at the extended end of the bed using fasteners. The other is temporarily clamped to the end hoop when the hoop house is closed.

To make opening easy, he installed 3/16in. eye screws at the bottoms of each side of the front rail. To these he attached lengths of 3/16-in. clothesline cord. To open or close the hoops, he simply pulls on the cords.

(Vern Harris (gardenhoop@gmail.com)



All the hoops can be pulled to one end of bed, exposing the entire growing area to sunlight.



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