An Inexpensive Propagation Structure

Thomas R. Loder III
Byers Wholesale Nursery, Inc. P.B. Box 560, Meridianville, Alabama 35759

At Byers Nursery we currently stick about 900,000 softwood cuttings each season. Our plant mix consists of crapemyrtle, birch, maple, viburnum, holly, dogwood, and other shrubs and trees.

In 1988 we had twelve 24- × 95-ft quonset houses that would hold about 600,000 cuttings. We wanted to expand our production area with the minimum monetary expense. In considering ideas from local propagators Don Shadow, Freddy Alonso, Carl Bauer, and Milton Schaefer, and those seen on I.P.P.S. tours at Turkey Creek and Simpson Nursery, a small 4- × 95-ft quonset bed seemed to be the most cost-effective.

Some of these bed designs have used landscape timbers or concrete for sideboards and metal conduit pipe or concrete reinforcement wire for the arches to support the plastic. The price of these products varies greatly, but usual costs are: landscape timbers, $48/bed; concrete reinforcement wire, $40/bed; ½-in. metal conduit, $35/bed. Concrete varies with just how much is used.

We took this concept and simplified it to use concrete rebar and PVC pipe. Each small quonset consists of 40 pieces of 3/8-in. × 16-in. concrete rebar, pushed 12 in. into the ground and spaced at 5-ft intervals along the sides of the bed. A 6¾- ft piece of ½-in. schedule-40 PVC pipe is placed over the rebar on one side of the bed, then bent and placed over the rebar across the bed, forming the quonset structure.

The price of the rebar is $7.33 and the PVC pipe is $12.60, for a total of $19.93 per bed. These materials may be used as many as four times per season and are reusable from season to season.

The length of these structures can vary. We chose 95 ft because of the ability to use the same portable mist lines used in our large quonset houses. Any clear plastic, 8 to 10 ft wide, will work with the appropriate shade. Not only shade but also 6- × 6-in. ventilation holes, cut about every 10 feet and on each end, are needed because of the intense heat at plant level.

This flexible, simple, and inexpensive structure is the most cost-effective and efficient propagation structure we currently use.