



SILVICULTURE FIELD TIP

Field tested ideas.

Contact the author for further information.



Division of Forestry

DEER RIVER AREA

SEEDLING STORAGE BOXES

February 1991

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With all the advances that have been made in the nursery and planting programs, the on site seedling storage probably causes the most damage and is the most difficult to control. With the tree planting storage boxes we have built, we offer some protection to the seedlings and give the planting project supervisors more flexibility in delivering bareroot stock.

The tree seedling storage boxes (Twigloo coolers ?) were built by sandwiching 1 1/2 inch styrofoam between 1/4 inch exterior plywood with a nominal 2" X 2" frame. We built three boxes with 4' X 4' X 8' outside dimensions. This simplified construction and minimized waste. We used roofing nails to fasten the plywood to the frame although I think galvanized drywall screws would hold better. The sides were fastened together by using 3 1/2 inch drywall screws. All joints were glued also. The boxes were primed and painted with oil base white gloss enamel inside and out to reflect as much heat as possible and to preserve the plywood.

The cost is estimated at \$200. The following is a list of materials needed for each storage box;

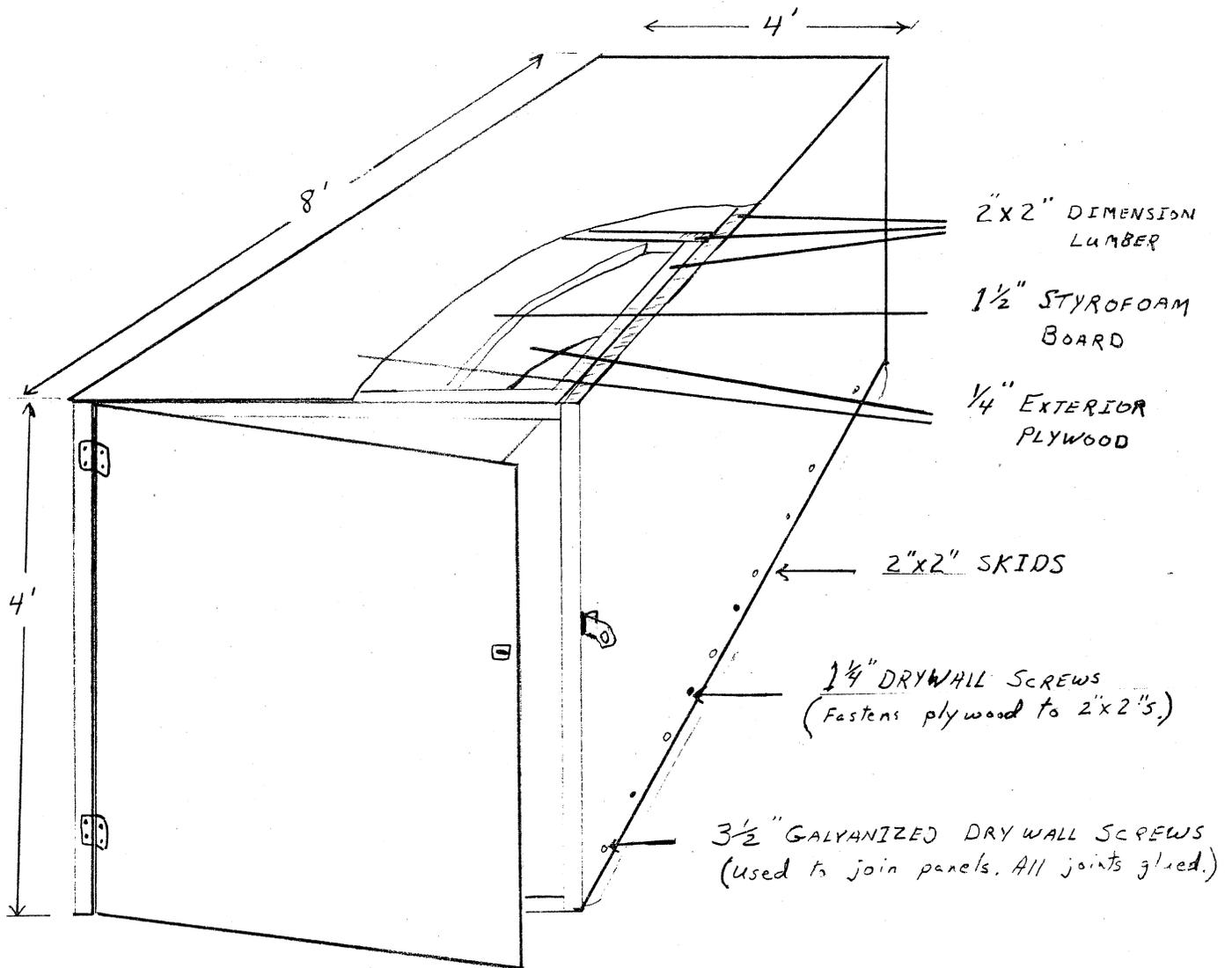
QUANTITY	ITEM
10	1/4" x 4' x 8' exterior plywood
5	1 1/2" x 4' x 8' foam
20	2" x 2" x 8' dimension lumber
5	tubes construction glue
8	lbs. 1 1/4" roofing nails or 200 1 1/4" drywall screws
50	3 1/2" drywall screws
2	pair of 3" door hinges
1	3 1/4" swivel staple safety hasp
1	gallon exterior primer
1	gallon exterior gloss enamel (white)

The tree storage boxes will hold 24 boxes of seedlings. We put 30 to 60 pounds of block ice in the storage boxes. By placing the block ice in an empty planting bag and box, we could put the ice somewhere near the center of the load. This would help keep all the trees cooler. The ice generally lasted from 4 to 6 days, which I think is good evidence that the boxes work well. The planters like the storage boxes since there is usually enough room to store their food and water.

We use Ranger trailers and double wide snowmobile trailers to haul the tree boxes out to the site. We installed 4 large eye screws on each box to use as anchor points to tie the boxes down with. The trailer was left on the site. Trees and ice blocks could be added as needed.

- SEE DIAGRAM ON BACK -

(Also see February 1991 SILVICULTURE FIELD TIP titled BEMIDJI AREA SEEDLING STORAGE BOXES by Mike Locke)



ALL SIDES AND DOOR ARE CONSTRUCTED WITH 1/2" STYROFOAM BETWEEN 1/4" PLYWOOD

MINNESOTA DEPARTMENT OF NATURAL RESOURCES

Division of Forestry		DIVISION OF FORESTRY						
Designed	EM	Drawn	EM	CONSTRUCTION DETAILS				
Survey		Checked		TREE STORAGE BOX				
Datum		Revised	1-17-91					
2-10-88		NOT TO SCALE		Sec.	T.	N.	R.	W.
Date		Dept. Code	Req.	Sheet	File			