

SEEDLING PACKING BOX EASILY CONVERTS INTO SEEDLING CARRYING BOX

Gerald A. Walters

Pacific Southwest Forest and Range Experiment Station, Forest Service, U.S. Department of Agriculture, at Honolulu, Hawaii

When tree seedlings are ready for field planting, they must be packed to prevent damage during shipment to the planting site. Tree seedlings are commonly packed horizontally in wax-lined cardboard boxes so that the roots face toward the box ends and the tops overlap. These containers provide protection even when they are stacked. Palletizing a load of seedlings is, therefore, possible.

At the planting site, seedlings are generally removed from the container, placed in a planter's bag, and subsequently planted. While being placed into—and while in the planter's bag—seedlings are easily damaged.

By using a packing box that can be converted into a seedling carrying box in less than a minute, the need to transfer seedlings from a packing box to a planter's bag is eliminated and the possibility of damage while transporting seedlings to the planting spots is reduced. The packing box is cut almost in half (fig 1) and the ends of the box are folded together (fig 2). Precut hand-holds are located in the folded area (fig 3).

The box illustrated measures 10 by 10 by 30 inches. When converted to a carrying box, it has a 10- by 20-inch base that provides vertical stability. This particular box is designed to hold 200 container-grown seedlings (1-inch top diameter of the root system).

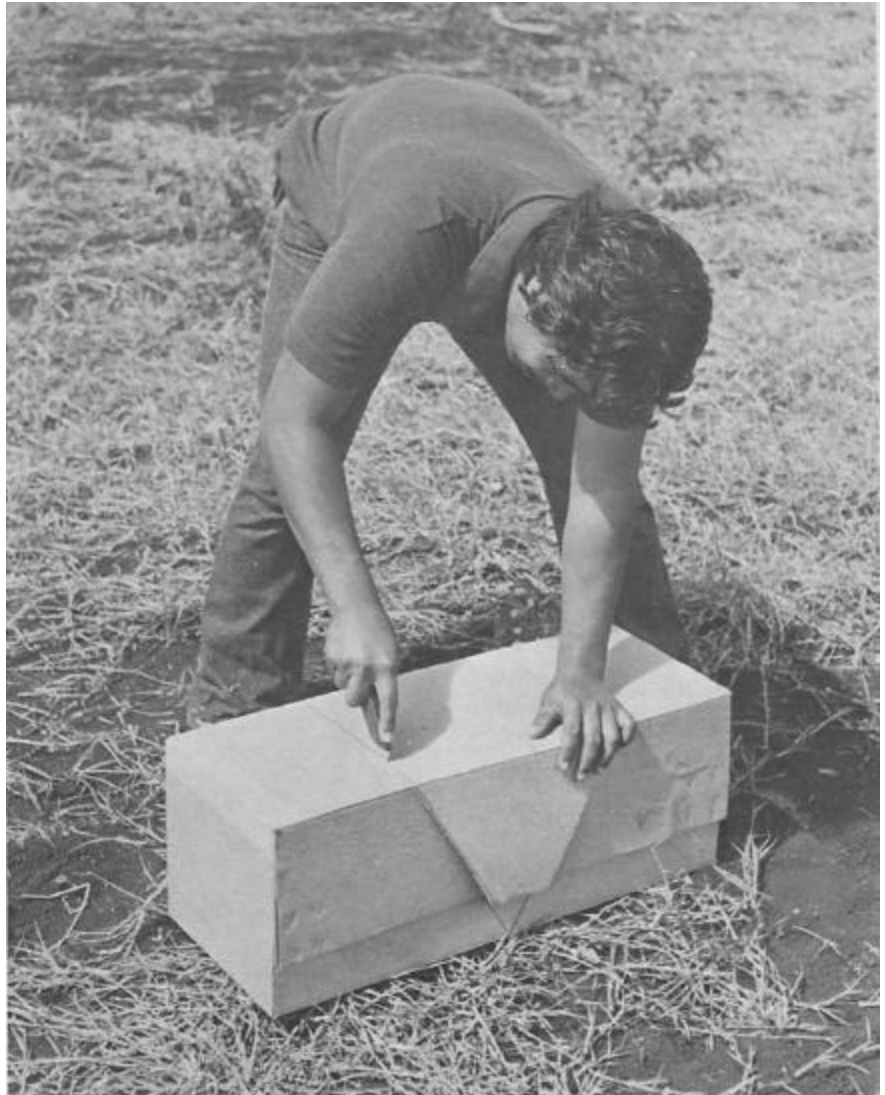


Figure 1. — *Packing box is cut along premarked lines.*



Figure 2. — *After the section is removed from the packing box, the ends of the box are folded together, overlapping seedling stems separate into vertical position.*

Figure 3. — *Precut hand-hold is formed in the seedling box.*



Figure 4. — *Tree planter with dibble and seedlings.*

A loaded box weighs about 20 pounds. This, of course, varies with the moisture content of the roots.

Seedlings packed fully in one end of the box before packing the other end allow the tops to separate easily when the box is cut and folded.

Boxes can be manufactured to specifications. "Cut" lines can be printed on the box or perforated so the discardable section can be torn away. "Hand-holes" can be made during box manufacture. The inside surface must be waxed to prevent moisture damage.

The boxes are shipped to the nursery and stored flat. This reduces shipping volume and storage space requirements. When a box is needed, it is folded and the bottom flaps are stapled. After the box is filled with seedlings, the top flaps are also stapled. Stapling is fast; and the staples are strong enough to hold the flaps securely. These boxes are easily shipped, stored, folded and loaded with seedlings.