

LEE BOUSFIELD PINE CONE DRYING RACK
TAHOE NATIONAL FOREST

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To expedite extraction of pine seed from cones, Lee Bousfield of the Tahoe National Forest designed this drying rack while stationed at the White Cloud Fire Guard Station (fig. 1). The Forest recommends the use of these racks.

Advantages. -Use of a cone drying rack has several advantages over the old method of pouring cones out on a canvas to dry (fig. 2) : (1) Yields more seed, no rodent and bird loss, no crushed seed due to trodding. (2) Reduces drying time. Cones open in 3 to 5 days, depending on ripeness of cone. Operator covers top of cone tray at night with canvas to protect from moist night air. (3) Cones are held about 28 inches above the ground. Drying winds can circulate through the cones. (4) Cones are undamaged and can be sold for Christmas decorations.

Construction. -The cone drying rack is made of common lumber. It consists of three parts, starting at the top: (1) Cone tray, 41 inches by 16 feet, 7-1/2 inches deep. Bottom of tray is covered with 1 inch mesh chicken wire. Holds 4 sacks of cones. (2) Seed drawers, below cone tray (fig. 3). Four drawers to catch seed and wings from cones. Bottoms are made of galvanized iron., 1-1/4 ounce weight. Metal shield 8 inches wide between each pair of drawers. (3) Stand, 28 inches high, 4 by 16 feet.

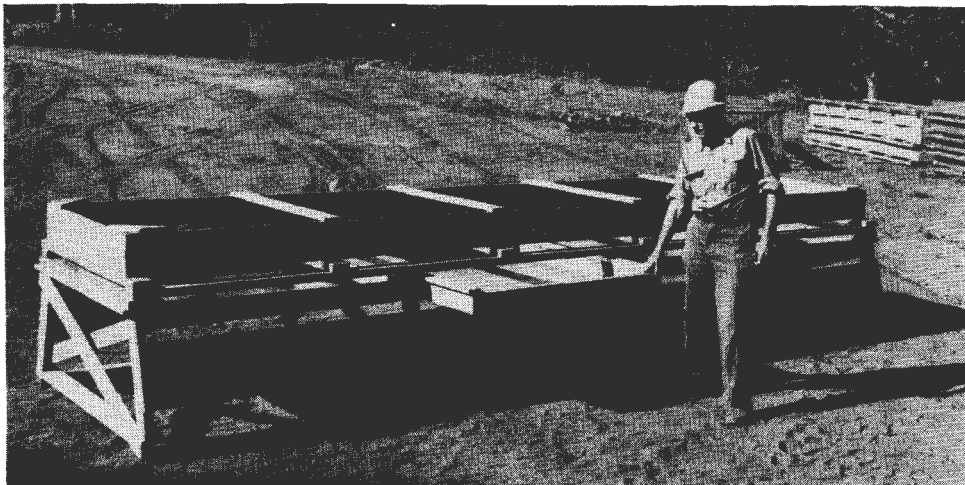


Figure 1. -Bousfield cone drying rack.

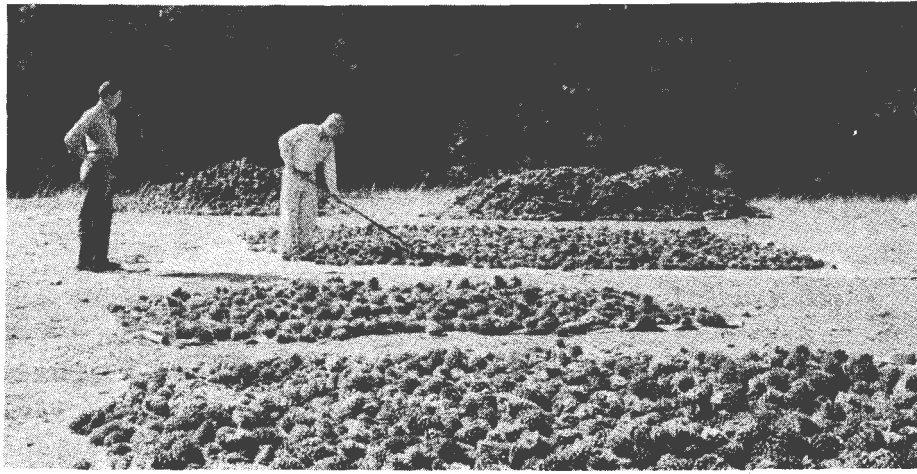


Figure 2. -Old method of spreading cones on canvas to dry.

Operation. -The Tahoe National Forest has 8 drying racks. These are set up at White Cloud Fire Guard Station on the Bloomfield Ranger District about September 1 when cones begin to ripen.

Four sacks of ponderosa pine cones are poured into the top tray of each rack and spread out. Canvas or builder's paper keep dew off at night. Cones are rolled around with a stick about two times a day, as they open. Seeds drop through chicken wire into metal-bottom drawers. When cones are empty, drawers are pulled out and seed is poured into sack. Sacks are labeled as to species, seed zone, forest, and date. They are then ready to send to the nursery for dewinging and cleaning.

Cost. -Racks cost \$41 each, \$328 for the eight. In addition, extracting seed from 257 sacks of cones cost \$2. 20 per sack. Extraction required about 40 days with the 8 racks (5 days per load).

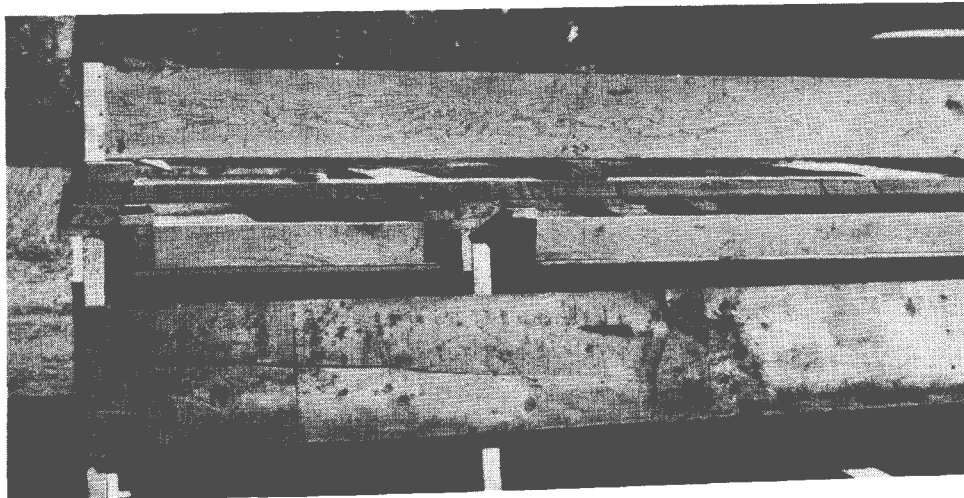


Figure 3. -Details of cone tray at top, seed drawers below.