



# STATE FOREST NOTES

Office of the State Forester  
Sacramento 14, California

No. 13

November, 1962

## USE OF PORTABLE SCAFFOLD IN DOUGLAS-FIR CONE COLLECTION

Donald K. Petersen <sup>1/</sup>

Each year as cone crops permit, the California Division of Forestry collects large quantities of Douglas-fir cones. A unique problem exists in Douglas-fir cone collection. The cone crop is frequently poor except for small scattered areas where a good crop may occur. Finding a good collection area solves only half the problem. Usually it is not feasible to collect on logging operations, and climbing is seldom satisfactory. Douglas-fir cones are near branch tips and it is nearly impossible to reach the cones from the ground or from the tree bole while climbing. Therefore, a simple inexpensive method of reaching cones was developed in 1962 using a portable aluminum scaffold (fig. 1).



Fig. 1. Cone pickers working from a portable scaffold mounted on a 1 1/2-ton stake-side.

<sup>1/</sup> Forest Technician, Service Forester, California Division of Forestry, Fortuna, Humboldt County, California.

## METHOD

The scaffold was rented from a commercial concern and assembled on a 1½-ton stakeside. Disassembled, it is compact (fig. 2) and can be easily transported by a ½-ton pickup.

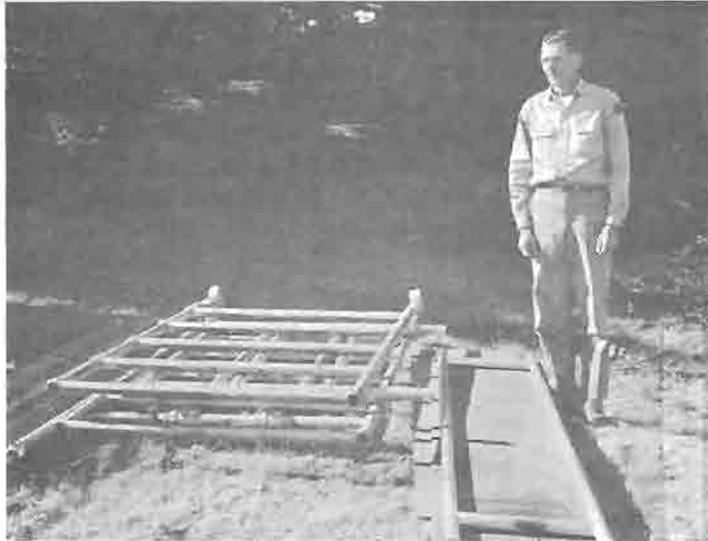


Fig. 2. Note scaffold's compactness before assembly.

Three men assembled the scaffold and fastened it to the stakeside using 1-inch hemp rope for guy lines (fig. 3). This required from 15 to 20 minutes.



Fig. 3. Assembled scaffold. Photo indicates simple guys needed to secure scaffold.

With the aluminum scaffold mounted on the stakeside an elevated, mobile cone-picking structure is complete and ready to facilitate cone collection in areas where a truck can be driven to the seed trees.

### RESULTS

Using rakes and wire hooks to pull and shake the branches, the pickers could reach cones from 27 to 30 feet above the ground. If the scaffold was any higher, it would be difficult to move the unit between trees. Made of light aluminum it was easy to handle, but was easily damaged by backing into trees (fig. 4). Although the weight of a scaffold would be greater, wood, steel, or galvanized waterpipe construction would increase its strength considerably.

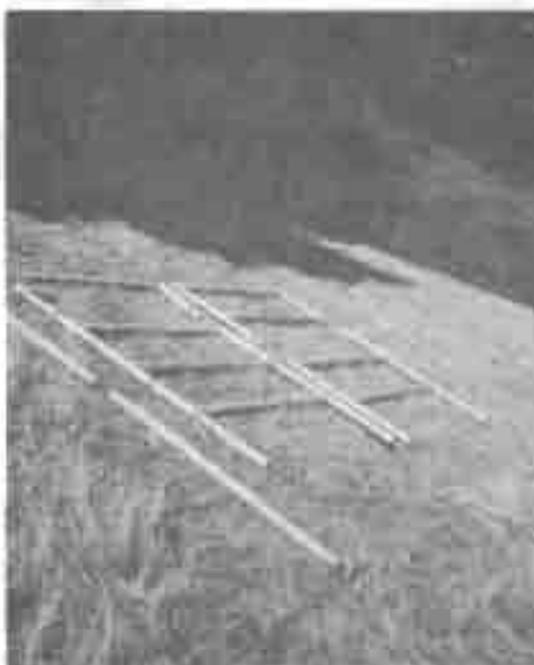


Fig. 4. Note damage to aluminum pipe.

The unit was confined to slopes of 10 percent or less. Maneuverability would be greatly increased by placing the scaffold on a vehicle equipped with four-wheel drive.

In picking cones from felled trees, Conservation Camp crews <sup>2/</sup> normally pick two sacks of cones per inmate eight-hour day. However, four inmates assigned to the scaffold unit picked from 13 to 22 sacks of cones each day.

---

<sup>2/</sup> These are crews of State prison inmates from a Conservation Camp operated cooperatively by the California Division of Forestry and the California Department of Corrections. They work in many types of conservation activities and are used extensively in the control of wild fires in California.