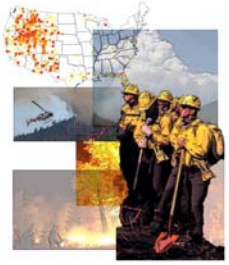
National Fire Plan

Cone Collection for Post-Fire Reforestation and Restoration Montana 2002



The Forest Service Northern Region expects to collect approximately 2,500 pounds of ponderosa pine, western larch, western white pine, and Douglas-fir seed for reforesting lands burned by wildfire or to reforest after harvest. The majority of the collection is ponderosa pine needed to reforest the Bitterroot National Forest after the 2000 wildfires. The Helena NF and Lolo NF also made collections that are needed to reforest lands burned in 2000. The remainder will be used to plant other areas burned in wildfire or harvest sites over the next five to ten years. In all, the seed will help reforest approximately 39,000 acres of National Forest land.

The Region will spend approximately $300,000 in direct expenses for collection. National Fire Plan funds supplemented the conventional funding with about 10% ($11,200) of the cost on the Bitterroot National Forest.

Ripe western white pine cones.

Contractors collect the majority of the cones; climbing trees selected for their genetic qualities, and pick the ripe cones. Except for white pine, cones are collected from trees in the forest. All planting of white pine is done with genetically disease resistant tree stock cones picked by Forest Service crews in agency tree orchards. All cones collected are shipped to the Forest Service Nursery in Coeur d'Alene Idaho for extraction and storage. Seed collected this summer can be sown and seedlings planted as early as summer 2003 however the majority of seedlings from this seed collection will be planted as early as spring 2005.

"All the stars have to be aligned," said Sue Macmeeken, the Bitterroot forest's silviculturist. "You've got to have the right light, the right moisture and the right temperatures during the right months of the year. If anything disrupts the sequence, everything is lost."

Collecting cones in the top of a ponderosa pine

This year's cone crop was outstanding. With very little timber harvest in ponderosa pine and to a lesser extent in dry Douglas-fir forests recently, the Forests did not have much seed stored ready for planting when the fires hit. Areas selected for planting are those that would reforest very slowly naturally or that would reforest eventually but with more shade tolerant species. This cone crop enables the planting program to make large strides in reforesting the burned lands with desired seral species. Ponderosa pine has an infrequent cone crop, with large cone crops as long as 15 years apart. For the Bitterroot and parts of the Lolo Forest, this was a bumper crop year. On the Bitterroot NF, approximately 15-20 climbers picked cones for two weeks. They will finish in mid-September just before the cones naturally ripen, open, and scatter seeds on the forest floor.

Seed extractor operations at the Coeur d'Alene, Idaho Nursery.