

Smudge Pot Lighter—an Effective Tool for Prescribed Burning in Pinyon-Juniper

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Prescribed burning pinyon-juniper (*Pinus-Juniperus*) out of fire season is difficult in scattered and dispersed stands with tree cover ranging from 10 to 35%.

It is necessary to light several tree clusters to generate enough heat and flame length to spread a fire through these stands. Direct lighting of trees has been found to be a successful method of starting a fire which will carry.

Tree-Lighting Tool

Orchard heater lighters (smudge pot lighter) work well for direct lighting of trees. The long spout gives a good pouring balance and provides some distance from the flame. The lighter will emit a lot of fuel, which when mixed 50-50 (50% gasoline and 50% diesel oil) will remain burning on the bark or needles for 10 to 20 seconds.

Tree-Lighting Technique

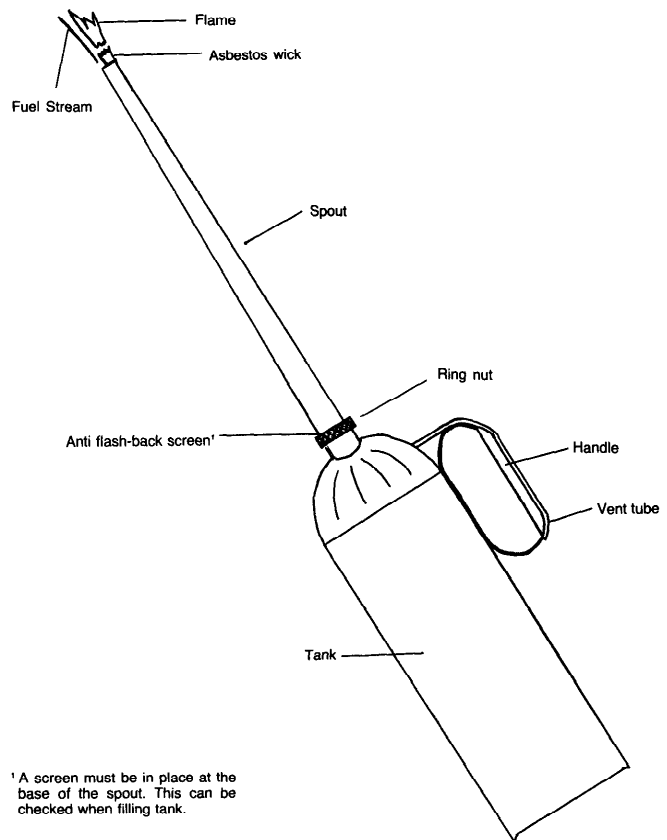
Light the individual trees directly by pouring a heavy stream of burning fuel on the trunks. Light the ground needles and any shrubs under the tree while backing out from under the canopy on the windward side. By directly lighting several trees, the ambient temperature of the area increases rapidly and understory plants are ignited. It is this initial torch of several trees producing a flame length of 30 to 40 feet, with proper atmospheric conditions, that is necessary to develop a fire which will carry.

Heat and flame are not generated fast enough if only the shrubs are ignited, especially those in the tree interspaces.

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¹ A screen must be in place at the base of the spout. This can be checked when filling tank.

Fig. 1. Orchard heater lighter.

Lighter Acquisition

Orchard heater lighters can be obtained in citrus producing areas at growers' supply houses under \$25.00 each. In declining citrus areas, such as parts of southern California, used lighters are under \$5.00 each.