

## Spot Spraying for Weed Control

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In the 1970s and 1980s the U.S. Forest Service did a lot of timber harvesting off of the federal lands they managed. A large percentage of the harvest was clear-cuts between about 5 to 60 acres. One of their objectives after harvest was to get these clear-cuts stocked with seedlings as soon as possible. And to accomplish this they contracted a lot of this work out.

I was one of the contractors that bid on the projects. Some of the projects we bid on were mechanical site preparation, tree planting, precommercial thinning, and backpack application of chemicals. The spacing for tree planting varied per location

but the average spacing was about 10' x 10' which theoretically is 436 trees per acre. However because of unplantable areas and natural trees that sometimes seeded in, we only averaged about 400 trees per acre. Does this reforestation spacing sound familiar? Many of us still do the same thing when we replant areas after harvest.

The U.S. Forest Service did some herbicide spraying to control weeds for plantation release. We did a number of contracts for backpack application of these herbicides on their plantations. Both 100% coverage or spot spraying around the seedlings. When we were applying 2, 4, D or Glyphosate (Roundup®) for spot spraying we would use a piece of 6" PVC

pipe about 2 1/2 feet long with a homemade handle near the top. We used this to cover the seedling while spraying around it because the label for these chemicals reads you are not to apply direct contact of the spray on the seedlings. Atrazine and Hexazinone (Velpar®) are labeled to go over the top of the seedlings before bud break so no seedling protection was required when using those sprays. We also used a blue or purple dye in the chemical mix so the crew could tell where they had sprayed.

What is interesting is that spraying a 4' x 4' spot around a seedling on a plantation planted at a 10' x 10' spacing covers less than 15% of the ground than what would be covered with a 100% broadcast spray. Even at an 8' x 8' spacing after taking into account the unplantable spots only covers about 20% of the ground in a plantation. Spot spraying not only saved money on the amount of chemical purchased but left vegetation which cut down on erosion on any slopes.

A number of additional chemicals are labeled for forestry now and it is always required that anybody using the chemicals read and follow the labels.

As small landowners, if we are considering spot spraying, we will find this labor intensive but one person usually is able to do several acres per day. There are not very many contractors with commercial licenses that do backpack spraying but if you check with the OSU Extension office in Oregon City you may be able to get a short list of contractors to contact. ■

*Editor's Note: Clackamas County tree farmer, John Foster, is a CFFA member and a partner with Oregon Tree Farms, Ltd.*