

WEED CONTROL

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Apparently, we do not have the weeds or the grass that give other nurserymen so much trouble. We have experimented with most chemicals sold locally, such as Mylone, Anthrazine, Simazine, Ala alcohol, and others, at rates directed by the chemical companies. The chemicals we have used year after year, which we thought helped, did not decrease our cost of operation so we have discontinued the use of Vapam, Eptam, and Dacthol.

We believe that an ounce of prevention is worth a pound of cure. Therefore, we have used chemical control in our cover crops and have left the land fallow 1 year between cover crop and seeding. We don't let weeds or grass go to seed. In our cover crop, we use Treflan, 1-1/2 pints per acre, for pre-emergence and have also spot treated with 3 quarts of DSMA; 12 pounds arsenate per gallon, 3/4-pound of 80 percent Karmex 80 percent active ingredient, and 1 gallon Surfactant, per 120 gallons of water. We use just enough to dampen the plants we want to kill and not enough to drip off them. This combination of chemicals takes 3 or 4 days to kill the plants, therefore, we do not water for about a week after application. This solution is used at the rate of 30 to 40 gallons per acre in solid coverage, depending on size of weeds. Karmex is used in this solution only once per year. We can use the DSMA and Surfactant 3 or 4 times without any ill effects on the soil. Usually the recommended rate of Surfactant is 1/2-percent to 1 percent. We have found that 3/4-percent to 1 percent gives us a much better kill. We also use this solution in the seed orchards and down the irrigation lines in our seedling fields.

We have not found any way to eliminate the good old hand weeding and herbicidal oils. We like to use Lion Oil Herbicidal oil No. 1, 22 percent aromatic hydrocarbon.

We spray while the broadleaf weeds are in the cotyledon stage soon after daylight as the dew will not ball up in the buds. Weather permitting, we spray every 10 to 14 days, preferably the morning after we have watered or have had a rain, as the weeds are more tender then. We start with 20 gallons per acre while the seedlings are tender and as soon as the trees harden a little, we increase to 30 gallons per acre.

Our labor cost for hand weeding is approximately 166 hours at 1.25 per hour, or \$207.50 per acre; DMSA, Surfactant, and Karmex, to kill weeds on irrigation lines cost 81.56 per acre. Herbicidal oil at 375 gallons at \$0.145 per gallon cost \$54.40 per acre. This oil is delivered by transport truck at this price. At 25 trees per foot or 768,000 trees per acre, it costs 50.341 per thousand. At 20 trees per foot or 614,000 trees per acre, the cost is 0.43 per thousand.

We have not used enough chemicals on hardwood to make a statement, except that we used Sesone with total loss to our black gum and some damage to our walnuts. So far we do not have enough hardwood to bother with spraying. We hand weed.

The cost of chemicals we use follows:

DSMA	\$3.85 per gallon
Surfactant	2.70 per gallon
Karmex	2.45 per pound