

USE OF 2, 4-D TO CONTROL WEEDS IN CONIFER NURSERIES

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Since 1947 the Chittenden Nursery has been conducting limited experiments on the use of 2, 4-D as a pre-planting and pre-sowing treatment to control weeds in the transplant beds and seedbeds. In all the experiments the 2, 4-D (Sodium Salt) was applied at the rate of 6 pounds to the acre. The 2,4-D was dissolved in water and applied with the, acid sprinkler. After the 2, 4-D had been applied the beds were given a good watering and then watered every few days. At least 15 days were allowed to elapse between treating and transplanting and 30 days or more between treating, and sowing. After the beds have been treated the soil should not be worked.

In all the transplant areas the early germinating weeds have been greatly reduced. The transplant beds were treated and planted in the fall of 1949. At the time of the first weeding in the spring of 1950, there was an average of 2 weeds to the square foot in the treated beds as against 22 per square foot in the untreated beds. Most of the weeds in both the treated and untreated beds were perennials or annuals that were resistant to oil sprays. The control in the transplant beds in other years has been comparable to the results obtained in 1950.

In the fall of 1950 several beds in the transplant area were treated with 2, 4-D in early August and planted in late August along with untreated beds. By the first part of September the untreated beds had a heavy infestation of weeds, whereas the treated beds were practically free of weeds. Survival has always been slightly higher in the treated beds and the seedlings have a better color.

The use of 2, 4-D as a pre-sowing treatment has not proved as satisfactory, perhaps because it is necessary to stir the soil before sowing. While the number of weeds was reduced, the reduction was not sufficient to warrant the expense of the treatment. The 2, 4-D treatment has not affected the germination of conifer seed in any of the treatments to date.

Where fall transplanting is done or where the early weeds are perennials or resistant to oil sprays, the use of 2, 4-D as a pre-transplanting treatment has greatly reduced the weeding cost.