

## HYDRO-MULCHING

Warren Lerfald, Conwed Corporation

It is my pleasure to talk to you this morning for a few minutes about Hydro-mulching.

This is a relatively new concept in mulching as pertaining to tree nurseries--going back to early 1968.

There are three "Hydro-seeder/mulchers" manufacturers which can equip you with the latest designed mulching machinery for your nursery. I use the term "Hydro seeder/mulcher" to include all as they have different brand names.

1. Finn Equipment Company has plants in Cincinnati, Ohio and Knoxville, Tennessee, and calls their mechanical agitation machine "Hydro-seeder."

2. Bowie Machine Works has a plant in Bowie, Texas, and their machine is a "Hydro-mulcher."

3. Tex-Way Industrial in Fort Worth, Texas, makes a machine with hydraulic agitation and calls their machine the "EvCo-U", standing for environmental control unit.

4. A fourth machine which can be adapted quite easily to mulch seedling beds is made by the Reinco Company in Plainsfield, New Jersey. This machine makes use of hydraulic agitation also.

Now, what do all these machines have in common? They all have a tank for mixing mulch with the water, a pump, and agitation system.

The most recommended machine for your tree nursery is an 800-gallon machine which is small enough to move easily over and around the beds, and yet large enough for better mileage and less fill time.

First, you fill the tank with water and then add the wood fiber mulch to form a slurry, which will be your mulch cover. Normally you will add about **300 - 350** pounds of mulch. This will give you

enough to cover the seedbeds with a wet, protective mulch blanket of hardwood fibers after the seed have been spread and rolled into the soil.

You then turn on the agitation system. This system mixes--either mechanically by paddles or by hydraulic pressure--the wood fiber and water into a slurry and will continuously recirculate it so there will be even and lasting mixing.

The seedbeds should first be leveled; then followed by a tractor pulling a seed hopper; then followed by a roller. A roller is important to pack the seed slightly into the soil so that it will be less apt to blow or wash away, or fall victim to the hot sun or birds. Last, the wood fiber mulch is gently sprayed down uniformly over the pine seed by directing the pump pressure against a baffle or deflecting board<sup>o</sup>

The hydro-mulch itself is clean, uniform in size, non-toxic, free of grass and weed seed, fungi, and other plant pathogens that are commonly found in other types of mulch. It will help to retard weed growth, prevent erosion, and speed germination.

Normally, when you mulch with pine straw, you employ a crew to gather the pine needles; chop or bale them; haul them to your nursery for unloading; and then spread them over the seedbeds. Not only with the hydro-mulch method do you cut labor costs appreciably at planting, but after the seedlings are pulled in the fall, you will not have to rake up the mulch as it has worked its way into the soil and decomposed.