

ALLYL ALCOHOL APPLICATION THROUGH THE OVERHEAD SPRINKLER SYSTEM

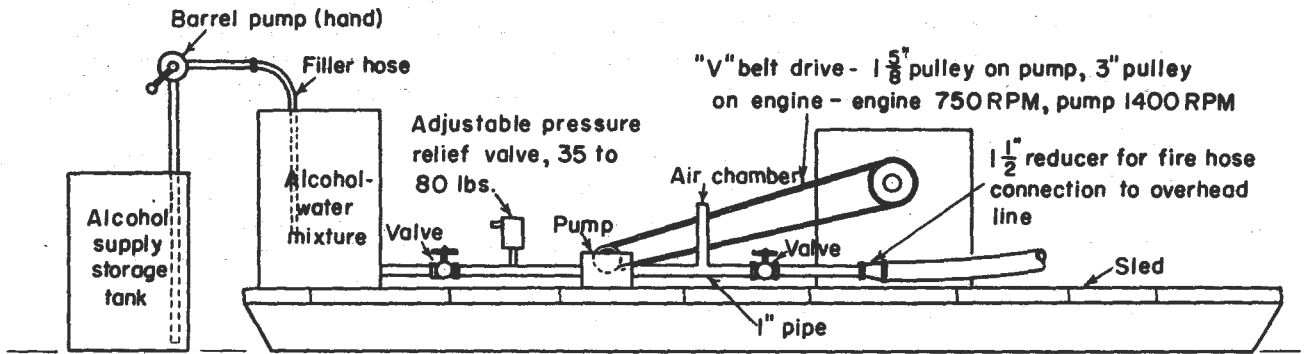
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Weed control by chemicals is now almost a standard procedure in many nurseries. Several different kinds of chemicals are in use and most of them give good results. Some of the weed killers are easy to handle and some are somewhat difficult due to composition of the chemicals. At the It. Shasta Nursery we have been using one of the difficult ones -- allyl alcohol -- almost exclusively for weed control (pre-treatment) since we started the nursery and the results are satisfactory.

This chemical is very toxic to humans, and it has to be applied and handled with caution. By injecting it into the overhead sprinkler lines with the device shown in the drawing its application is simplified and the dangers of its use minimized. By this method one-half acre can be treated in 15 or 20 minutes at a very reasonable cost. The device, and its manner of use is described as follows: a sled has been equipped with a 50-gallon tank, a 2-horsepower gasoline motor, and a small high-pressure force pump with roller-type impeller capable of delivering 16 gallons per minute at 80 pounds pressure. The outfit is drawn alongside the riser of a pipe line and the tank filled with 45.5 gallons of water. Four and one half gallons of allyl alcohol are then pumped in with a barrel pump with the filler-hose outlet beneath the water surface in the tank. This makes a 50-gallon diluted solution of allyl alcohol. The solution is then forced into the pipe line through a tap at high pressure while the regular flow of water from the nursery pumping system is going through the pipe line at somewhat lower pressure. Thus more dilution of the allyl

alcohol solution is obtained, even distribution is made, and deeper penetration in the soil is assured. In about 20 minutes the 50 gallons of solution has been applied on .5 acre. A pipe line of about 400 feet in length and covering a strip slightly over 50 feet wide. For pipe lines of 500 feet, five gallons of allyl alcohol would be added to 45 gallons of water to obtain the same rate of treatment per acre.



INJECTION PUMPING SYSTEM FOR APPLICATION OF ALLYL ALCOHOL

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