



Convenient storage tanks in the rear hold adequate supply of herbicides, insecticides, fertilizers, etc.

all to be unsatisfactory. In the end we found that one good coat of red lead does the job better than anything else. However, the steel must be treated first with "Metal Prep"; then once each month thereafter one quart of Toxaphene should be added to the upper tank, which keeps an oil film on the tank and prevents rusting.

The signal lights on the truck are so arranged that while the truck is pumping, the turning lights on the side and the rear can be left on and flashing.

Holds Enough Chemical for Weeks

The rear compartment can hold enough chemical to operate for several weeks if necessary. This compartment is kept locked when the operator is not present. The quick-fill valve is also located inside the locked compartment to prevent anyone from opening it and causing the "drop tank" to overflow. The "drop tank" is equipped with a locking latch so that the truck can be parked in complete safety.

We are constantly working to improve our trucks. Our next model will have a power reel, and the chemicals will be put into compartments from which they will be piped into a measuring chamber and from there into the "drop tank." Thus the operator will not handle the chemical at any time except when the chemical storage compartments are pumped full which is approximately once a week. We are certain that as time goes by we will think of many more improvements, and as we do they will be incorporated into our models. Our trucks are giving us a great savings in maintenance, and there is no waste of material since operators mix the "drop tank" for each lawn on an individual basis.

Dutch Elm Disease: Cause, Precautions

Dutch elm disease, one of several wilt diseases with similar symptoms that attack elms, has no known cure today. It is possible, however, to reduce losses by taking adequate precautions.

Usual symptoms of the disease are a wilting and yellowing or drying of foliage, usually followed immediately by defoliation and death of the affected branches. Although Dutch elm disease commonly appears on one or several branches and then spreads to other portions of the crown, the entire tree may suddenly develop disease symptoms.

A brown discoloration in the water-conduction vessels of the wood develops in all infected trees. In early spring this may be seen as brown streaks in the wood layer just under the bark of diseased branches.

Principal carriers of the Dutch elm disease fungus are two elm bark beetles: the smaller European elm bark beetle, by far the most important of the two, and the native elm bark beetle.

Habits of European Bark Beetle

European bark beetle, chief carrier of the fungus, will attack all species of elm, and plants of some closely related genera. Feeding attacks by adults are made only in living elm trees, usually in one- or two-year old twig crotches. Although adults do most feeding near their birthplace, they have been found feeding more than two miles from breeding areas.

Bark beetle feeding during the spring and early summer is most likely to result in a severe case of Dutch elm disease. Late season feeding, however, usually results in very localized infections that seldom cause serious damage to the tree.

Beetles Prefer Dying Trees

Dead or dying elm material is preferred for broods of young, although it is not uncommon for beetles to make so many attempts to breed in certain weakened but living trees that the trees eventually die and broods of the insect are successfully established.

If the fungus is established in dead or dying trees or in cut wood used by the bark beetles for

breeding places, the entire generation may contact spores of the fungus on their bodies and then introduce Dutch elm disease into living trees.

Once the disease does appear in an area where the bark beetles are well established, it increases at an extremely rapid rate unless steps are taken to control it.

No cure for the Dutch elm disease is available yet. Two precautions that should be taken to curb possible losses are:

(1) Eliminate material the beetles use for breeding. Remove living elms severely weakened by drought, dead or dying elm trees, and any broken limbs or any recently cut wood. This material should be burned or the bark surfaces thoroughly wet with an insecticidal spray.

(2) Spray all living elm trees in the spring and early summer with a large gallonage of DDT or methoxychlor to prevent or reduce feeding by beetles in living elm trees.

Sanitation a Must For Plant Disease Control, Agman Notes

Contract applicators cannot keep the spread of plant diseases to a minimum unless sanitation becomes a regular practice, Dr. R. E. Partyka, plant pathologist at Ohio State University Extension Service, Wooster, points out.

Dr. Partyka recommends disinfecting tools immediately after they are used. One suggested method is to soak them for a few minutes in a crock containing 1 gallon of commercial formaldehyde in 18 gallons of water. "Methyl bromide can be used in a small, confined space," Dr. Partyka notes.

Clothing, and especially shoes, may carry an infestation from one lawn to another, he cautions CAs, and it is best to change, or take some other precaution, before moving on to another operation.

Equipment, such as sprayers, should be washed in 70% alcohol or chemically treated, whenever they are used, Dr. Partyka concludes.