

**R**ECENTLY, a new herbicide was introduced that offers a solution to many of the vegetation control problems encountered by custom applicators. Technically, this herbicide is 4-amino-3, 5, 6-trichloropicolinic acid, and is known by the Dow Chemical Company trade name as Tordon.

It is a highly active systemic compound, effective on a wide range of broadleaved plant species. Sprays applied to the foliage of plants in the conventional manner produce growth responses similar to those from 2,4-D and 2,4,5-T. Initial reactions of the plant include curling of the leaves and twisted new growth. This is followed by gradual death quite similar to the effect produced by phenoxy herbicides. Most broadleaved plants are killed, while most grasses are not normally affected at application rates usually recommended for weed control.

#### **Has High Safety Factor**

Tordon is effective for the control of broadleaved weeds and woody brush and has a high safety factor in relation

to man and animals. It has a low acute oral toxicity, with an LD<sub>50</sub> value for white rats of 8.2 grams per kg. of body weight. Feeding tests with chickens, Japanese quail, swine, calves, and sheep show no problems stemming from accidental ingestion of the material. Experiments have been conducted to evaluate the effect of the herbicide on fish and other aquatic organisms, and here again, it displayed relatively low toxicity. No adverse effect on rats and dogs and no measurable histopathological tissue changes were indicated by 2-year feeding tests.

#### **Kills Conifers**

Initial leaf kill and brown-out are not as uniform nor as rapid on some species of brush sprayed with Tordon 101 Mixture as with sprays of 2,4,5-T and 2,4-D. Coniferous species, however, which are not effectively controlled by these herbicides, can be controlled readily with the 101 mixture. Leaf-stem sprays with the mixture have given excellent control of many of the most common woody plants, such as black locust, sassafras, per-

simmon, and hickory. The maple species are especially susceptible.

Tordon 101 Mixture should be applied to brush in the growing period from full leaf development in the spring until about three weeks before frost in the fall. As with other herbicides, growing conditions affect the results that can be expected. When applications are made to plants under stress because of lack of moisture, maximum results may not be obtained.

Experienced spray crews can apply the mixture safely and effectively to get the best results, with maximum protection to desirable vegetation nearby. Application by experienced crews working from hose lines with adjustable spray guns has been very effective; however, other methods of application are being evaluated.

At the present time, Tordon 101 Mixture containing a combination of 2,4-D and Tordon herbicides is recommended for the control of a broad range of woody plant species growing on industrial sites. This mixture is recommended at rates of 1 to 3

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# Tordon...

## a new vegetation management tool

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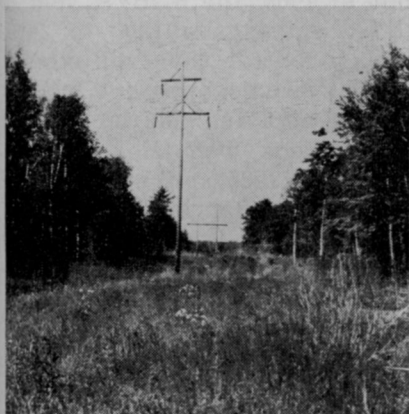
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For unwanted woody plant control, Tordon 101 is best applied to brush between spring leaf development and 3 weeks after fall frost.



Control of regrowth is shown above where area ground cover has no brush after being treated with Tordon mixture along this right of way.



Combined with a particulating agent, Tordon can be used in aerial applications such as this, making it applicable for brush control along hard-to-get-at powerlines in difficult areas.

gallons per 100 gallons of water to be applied as a leaf-stem spray so as to thoroughly wet the root collar, stems and foliage of the brush. On some of the more resistant species, such as live oak and some species of ash, soil over the root area of the brush should also be sprayed to enhance total effect through root uptake.

#### Rainfall Aids Pellets

A dry formulation, Tordon 10K Pellets, can be applied to the soil for brush control. The pellets can be distributed easily with granular applicators or spread by hand over the root areas of plants to be killed. Applications have been effective any time there is no frost in the ground. Rainfall after application aids in leaching the herbicide into the root zone of woody plants. These pellets are particularly useful for spot treatment brush control or in areas where the use of spray equip-

ment is uneconomical or hazardous. Treatments can be made early in the spring during periods of time when equipment and manpower are not used. A rate of 60 lbs. of Tordon 10K Pellets per acre has given control of such species as maple, conifers, locust, aspen and wild rose, while rates up to 85 lbs. per acre may be required for the control of black gum, oak and ash. For the control of a mixed stand of brush, a rate of 75 lbs. per acre of the pellets is recommended.

For effective spot applications, the pellets should be distributed evenly over the soil above the entire root system, from the stem outward to 1 ft. beyond the branch tips (drip line). For this type of application, Tordon 10K Pellets should be applied at 1 to 2 tablespoonfuls per 30 sq. ft. of soil surface. On sandy soils, or other soils easily leached, applications should be applied just prior to bud break in the spring,

and higher rates of application should be used.

Most deep-rooted perennial weeds including field bindweed, Canada thistle, Russian knapweed, leafy spurge, bur ragweed, milkweeds, docks, larkspur, toadflax, horse nettle, and poverty weed have been controlled very effectively by Tordon sprays. Application can be made at any time after the ground thaws in the spring until freeze-up in the fall.

Because of the degree and range of effectiveness of this herbicide, care during application is a necessity. Where roots of desirable plants are exposed to treatment, this herbicide can cause serious injury or actually kill the plants. Small amounts of drifting spray can also damage desirable broadleaved plants. It is important that crews applying Tordon be trained in the correct practices for the handling and use of herbicide materials.