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Current Information Letter

For the Information of County Extension Agents and Extension Workers Only
AGRICULTURAL EXTENSION DIVISION—PAUL E. MILLER, DIRECTOR
File for Future Reference—Complete Index Will Be Furnished Annually

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UNIVERSITY FARM
ST. PAUL, MINNESOTA

No. 00039

FILE UNDER: WEEDS

Important Special Note: Through an error, the last Current Information Letter, "Conservation of Trucks and Tires," issued July 28, 1942, was labeled "No. 37." It should have been "No. 38." Please correct your files.

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CHEMICALS IN WEED CONTROL

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Place of Chemicals - Where deep-rooted persistent weeds such as field bindweed have gained a foothold, one is justified to concentrate on their eradication by chemical methods. On large areas of infestation—two acres or more—chemicals are too expensive to use, and it is better to use tillage and cropping. Small localized patches through a field are most easily cleaned up with a chemical treatment.

Sodium Chlorate Best for Most Weeds - Sodium chlorate is the best chemical for all-round use in cleaning up such weeds as field bindweed, perennial pepper grass, leafy spurge, and other noxious plants. Treatment may be made wet or dry, preferably in the late summer or fall. The method of application is largely one of convenience. It is believed that there is less fire hazard when the dry salt is applied.

The required rate of application varies with the age of stand and the character of the soil. For general use, an application of three to four pounds per square rod is sufficient. This should be followed with treatment of spots where the weeds may persist not earlier than July first of the next year.

Borax offers Possibilities - The use of powdered borax as a substitute for sodium chlorate has possibilities. It is necessary to make rather heavy applications - about 15-20 pounds per square rod. At present, borax is selling for about \$3.00 per hundred pounds (in bags) F.O.B. St. Paul. It may be secured from the C. B. Lyon Company of St. Paul. In carload lots, it is somewhat lower in price. The borax is applied dry, using a regular chlorate spreader.

It would be well for agents to try out small quantities to determine borax effectiveness in their section. Applications may be made from now to freezing weather.

Acid Arsenicals - The acid arsenical sprays while effective in the West are of little value in Minnesota. They do not function well in regions of ample moisture. In addition, they are very dangerous to livestock. Results at Lambertson indicate them to be of little value in Minnesota.

Sinox - Sinox, a sodium salt of di-nitro cresol has proved effective in killing such annual weeds as mustard, wild buckwheat, and wild radish. It is especially suitable in flax fields. The flax plant is resistant to the chemical.

Applications are made when the mustard is in the rosette state. Usually the flax at this time is 3 to 6 inches high. Sinox is applied with a pressure sprayer at the rate of one gallon of Sinox in 100 gallons of water to each acre. At present, the material costs \$1.95 per gallon. It may be secured from the Apple River Mill Company of Minneapolis.

A type of Sinox known as Lawn Sinox is sold by the same company. This has proved rather effective on dandelions, plantain, and crab grass.

Ammonium Sulfamate - This material is being sold by the Du Pont Company under the name of Weed Killer. Trials at University Farm and at the Wisconsin Station have indicated its value in the eradication of poison ivy. The material is applied to the ivy vegetation as a spray. It may be used near trees and shrubs, provided the spray does not come in contact with the foliage of the desirable plants.

Within a few months the chemical breaks down and becomes a fertilizer. Thus no harmful residual effect is left.

Weed killer is being distributed by the C. B. Lyon Company. Dealers in the Twin Cities are: The Cooperative Seed Exchange, 201 U. S. Court House, and Danish Seed Company of Minneapolis, and the R. L. Gould Company of St. Paul. In 25-pound drums, the material sells for about 26 cents per pound. One pound of salt is dissolved in one gallon of water. This is applied to 100 square feet of area.

The manufacturers claim that the above dilutions are not poisonous to livestock which may accidentally come in contact with treated areas.

This material does not appear to be effective in the elimination of deep-rooted plants such as field bindweed.

Kerosene - Very promising results have been secured with kerosene as a selective weed killer. It has proved effective in killing crab grass, dandelions, and chickweeds in lawns.

Only water white kerosene should be used. It should show a color of Saybolt 23. Apply with a pressure sprayer at the rate of 1/2 gallon to 100 square feet. This is enough to just wet the foliage. To secure effective spread, add 1/4 pint of soap solution to each gallon of kerosene. Use rain or distilled water to avoid a precipitate. Add about 1 tablespoonful of soap powder to 1 quart of hot water. Make certain the soap is thoroughly dissolved, or it will clog the spray nozzle.

On lawns where crab grass is treated, applications should be made before seed is produced. Make the treatment on a clear day and the following day water the lawn to reduce damage to bluegrass and clover.

The treatment will discolor the lawn and do some injury to the grass. However, the grass will recover within two to three weeks. If many weeds are present, their destruction will leave bare spots which should be reseeded.

Avoid over-treatment, as this may result in destruction of the lawn grasses.