

Lawn Care

REG. U. S. PAT. OFF.

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SODIUM CHLORATE—WEED KILLER

WHILE certain chemicals seem to destroy weeds without permanently injuring grass, much is yet to be learned along these lines. Chemical weed control still is being approached from many angles. Sodium Chlorate has been found to have a practical degree of selectivity between lawn weeds and the grass. When used with due consideration to the weather conditions and strength of application, it has proved successful.

Effectiveness

The results obtained vary with a number of factors. The time of year is important. Early spring and fall usually permit the most damage to the weeds with a minimum burn to the grass. Using sodium chlorate during hot, dry weather is apt to be disastrous to the desirable turf and so should be avoided if there is a large percentage of grass to be salvaged.

Late afternoon applications usually prove more successful. Evaporation is not as great at this time of day, permitting the solution to remain on the foliage for a longer period. The soil should contain a fair amount of moisture at the time of treatment. Damp foliage is another condition which assures greater success. Several light applications are less harmful to the grass than one or two heavy ones. Even these less concentrated treatments are apt to discolor the turf temporarily but it will recover after a week or ten days. When the damaged weeds show signs of re-

vival, make another treatment. Fertilize and reseed the bare areas a week or so after the last application.

Precautions

Sodium chlorate is a white crystalline salt. Being a powerful oxidizing agent, it has the property to encourage fire when in contact with organic material such as cloth, leather, wood and paper. Mixed with sulphur in any form, it becomes violently explosive.

A few simple rules carefully followed at all times will easily eliminate the danger of fire and explosion in using it.

(1) Handle sodium chlorate only in the steel container in which it is shipped. Never remove to a paper or cloth bag.

(2) Immediately after using sodium chlorate, dry or in solution, thoroughly rinse the distributing equipment as well as clothing, shoes and gloves with plenty of clean water. Those applying the chemical in the field or on lawns should wear rubber boots and wash them afterwards.

(3) Do not expose sodium chlorate to sulphur compounds. Be certain to remove all traces of sulphur material from the spraying equipment before using sodium chlorate in it.

(4) Clothing, dry leaves and paper wet with sodium chlorate solution will burn quickly as soon as they dry. They may be ignited readily by friction as well as by an open flame or sparks.

Sodium chlorate is *not* common table salt. We sincerely trust that no one

who has used sodium chlorate in weed control has put any surplus in the salt shaker. The difference is in the words *chlorate* and *chloride*.

Where to Obtain Sodium Chlorate

Drug stores sell small quantities for about 25 cents per pound. Larger amounts may be purchased from wholesale and retail chemical companies at a somewhat lower price.

This chemical is also marketed in certain variations. There is a sodium chlorate-limestone mixture. Another contains calcium chloride, which holds moisture and allows more complete coverage of foliage. Since these are not 100% sodium chlorate they are not quite as effective pound for pound.

Where Used

Sodium chlorate is used to advantage on small turf areas infested with such common pests as Heal-all, Chickweed, Ground Ivy, and Speedwell. It is especially adapted to kill shallow rooted but broad-leaved weeds.

Young Crabgrass plants may be killed with a sodium chlorate treatment. Look for Crabgrass in the lawn after the first week of hot weather in early June. Then it may be distinguished from the desirable grass by its characteristic light green, wide-bladed leaf. In this two and three leaf stage it resembles a young corn sprout and is most easily destroyed by hand pulling or chemical treatment.

Rather than apply sodium chlorate over turf areas containing only a few scattered weeds, they should either be hand weeded or given other individual treatment. Care should be exercised not to use this chemical in the immediate vicinity of trees and shrubs as it will burn the foliage or maybe kill the plants.

Application Methods and Rates

This chemical is used in solution with water or as a dry salt mixed in a distributing agent such as sand. Since it is readily soluble in cold water a spray pump is convenient for spraying the foliage of lawn pests. When sodium chlorate is applied dry it is either broadcast by hand or distributed with a fertilizer spreader. Make certain to treat the area uniformly, otherwise the desirable grass is quite apt to be burned.

Lawns containing the above mentioned weeds should be sprayed with a sodium chlorate solution made up of 1 to 1½ pounds dissolved in 5 to 10 gallons of water. Strain the solution to remove undissolved particles before placing in a spray can and apply it to a 1000 square foot area. Mixing the same quantity with 3 or 4 gallons of sand and applying to an equal area while the foliage is damp is also a satisfactory procedure.

For areas such as weed infested vacant lots, where it is desirable to destroy all vegetation, make a concentrated solution of one pound of the chemical in one gallon of water. Use 5 to 7 gallons of this solution on 1000 square feet. On areas to be cultivated it may be applied alone at the same rate, i. e., 200 to 300 pounds per acre, using a fertilizer drill.

Effect on Soil

Soil subjected to this high rate of chlorate is rendered sterile. This effect is not permanent but it does tend to destroy seedling growth for six months or longer until there has been sufficient rainfall to wash the chemical out of the ground. Do not attempt to start a lawn on such an area until the spring or fall following the treatment. Then there should be no danger of injury.

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