

DIRECTIONS FOR USE

FOR INHIBITION OF GROWTH OF TREES, SHRUBS AND IVY: This product will inhibit growth of various trees, shrubs and ivy. The plant should first be pruned into the desirable shape. After regrowth of 2-4 inches occurs, spray on the product. This product can also be applied in spring as soon as new leaves have expanded.

The following tree species can be treated: sycamore, willow, alder, poplar, oak, mulberry, black walnut, maple, sweet gum, elm and tamarack.

The following shrubs can be treated: privet, pyracantha, Myrtus, Nylomas, Viburnum, Eugenia, Pittosporum, Cissus, Hahns Ivy, Algerian Ivy, honeysuckle, forsythia and ice plant.

DIRECTIONS FOR USE: The following spray solution should be sprayed on the upper half of the tree if top terminal growth is to be inhibited. If the side of a tree is to be inhibited, spray the half of the tree on the pruned side. For shrubs and ivy, spray all surfaces of the leaves and bark.

Add 1-1.3 gallons product to 100 gallons of water. Spray this concentration to wet all surfaces of leaves and bark to the point of drip (not run-off).
Compressed Air Shoulder Sprayer: Add 4 table-spoons product in one gallon of water and spray to wet all surfaces to the point of drip (not run-off).

Hose-on attachments can be used to spray trees and shrubs. Wet all surfaces of leaves and bark. Consult instructions on applicator for delivering the equivalent of 1-1.3 gallons product in 100 gallons of water (equals 4 table-spoons product in 1 gallon of water).

10X Concentrate Spray: Concentrate spray equipment can be used replacing 90% of the water normally used in dilute sprays. Consult us for specific instructions if you plan to use a concentrate spray.

(Note: Under western dry conditions add 1 quart Colloidal Products Corp. Multifilm X77 to each 100 gallons of spray dilution on trees and shrubs. For the 10X concentrate add 2 quarts Multifilm X77 to 100 gallons of water. Addition of this material is not necessary in the rest of the country.)

WHEN TO SPRAY TREES AND SHRUBS — Best results are obtained when the spray is applied to vigorous new growth. For example:

1. In spring just as the new leaves have expanded and new growth has started.
2. In summer after pruning and new regrowth is 2 to 4 inches in length.

HOW THIS PRODUCT INHIBITS GRASS GROWTH: It is absorbed into the green grass blades and translocated by the plant fluids to the active growth areas of the plant where cell division is retarded. It prevents seed head formation and slows down leaf growth. If an area is not mowed after it is applied, the turf will slowly grow to 6 or 12 inches in height by the end of the growing season as the effect of the product gradually "wears off".

If it is not applied before the seed head is formed, the seed head will expand in spite of the presence of the product. If this occurs, at least one week should then be allowed for it to circulate throughout the plant. The area should then be mowed to no less than 4 inches in height. Inhibition of subsequent growth will then be observed.

If a neatly clipped appearance is required, the application should be supplemented by mowing.

DIRECTIONS FOR USE: Apply to green grass since brown grass will not absorb the spray. One application per year made either in the fall or the spring followed by correct maintenance procedures, will produce required turf growth control.

Spring application (about April 10 - June 1) Use 1-1.3 gallons in 50 gallons of water per acre to reduce or eliminate mowing.

The two week period in the spring when the grass has grown 2-4 inches is ideal for applying. This is the period when forsythia and dandelion are in full bloom. The grass is in a vigorous growing condition and will absorb the chemical at the maximum rate. It will prevent seed head formation and inhibit growth of foliage. If spraying is delayed beyond this period, a mowing may be required to trim the area to improve appearance. Allow one week for translocation of the chemical before this mowing. Do not spray newly mowed areas covered with debris - this will interfere with coverage and absorption, causing poor results.

Fall Application (about Oct. 1 - Nov. 15) Use 1-2.3 gallons in 50 gallons of water per acre to reduce growth next season. The fall treatment is applied to green grass before it becomes dormant. Since growth is inhibited the following spring, the area will "green up" about two weeks later than untreated grass. Apply as close to the time the grass becomes dormant as possible but when it is still green. Do not spray when there is a cover of fallen leaves as this will interfere with coverage and absorption, causing poor results. It will control wild onion and garlic and biennial type weeds such as dandelion and plantain when applied in the fall.

Do not apply during the summer (June 1 - Sept. 25) since most permanent grasses become partially dormant in summer. The major reason for summer mowing is the presence of annual grasses and weeds which will have to be controlled with herbicides or mowing since they are not present when the product is applied to the perennial grasses.

CONTROLLING ANNUAL BLUE GRASS: To reduce Poa annua (annual blue grass) in golf course fairways, first mow area twice in normal sequence, usually 5 to 8 days apart. When third mowing is needed, before the first Poa annua seed heads appear, spray 1 quart product in 30 to 40 gallons of water per acre. If over 40 gallons of water are used per acre, the effectiveness will be reduced. The effect of treatment should be evident in 8 to 10 days.

This "light" treatment eliminates or greatly reduces reseeding of Poa annua with little retarding of grass growth.

OVERSEEDING RYEGRASS IN BERMUDA GRASS: Excessive growth of Bermuda grass on golf greens is often a problem in the fall after cutting, fertilization, overseeding and top dressing.

Apply in late September or early October, to inhibit the growth of Bermuda grass and enable rye or other grasses to produce a good stand. Use 2.3 gallon in 50 gallons of water per acre. The product should be applied with a calibrated boom. The Bermuda grass must be in good condition. Overseed no sooner than 48 hours after spraying.

ACCEPTED

September 11, 1973

UNDER THE FEDERAL INSECTICIDE
FUNGICIDE AND RODENTICIDE ACT,
FOR ECONOMIC POISON REGISTRATION
EPA UNDER NO. 177-104

Imperial

LIQUID GROWTH RETARDANT

For Controlling Growth of Grass, Trees, Shrubs
and Ivy and Preventing the Sprouting of
Potatoes and Onions

ACTIVE INGREDIENTS:

Diethanolamine salt of 6-hydroxy-3-(2H)-pyridazinone* 58%

INERT INGREDIENTS:

42%

*Hereinafter called diethanolamine salt of maleic hydrazide. Equivalent to 30% maleic hydrazide. Product contains 3 pounds maleic hydrazide equivalent per gallon.

CAUTION

KEEP OUT OF THE REACH OF CHILDREN

Caution: Avoid inhalation of mist. Avoid contact with skin, eyes or clothing. May be harmful if swallowed.

READ ENTIRE LABEL BEFORE USING THIS PRODUCT

SHAKE WELL BEFORE USING

Note: Use of this material in a manner, or at any time other than in accordance with the directions may produce plant injury, excessive residues, or other undesirable results. The seller makes no express or implied warranties, other than specified on the label.

Container Disposal: Chop holes in top and bottom. Bury 18" below soil surface at safe disposal site. Never reuse for food or water.

NET CONTENTS 5 GALLONS

Packed By

IMPERIAL INC.

SHENANDOAH, IOWA 51601

DIRECTIONS FOR USE

TO INHIBIT GRASS ALONG EDGES OF HOME LAWNS (See Note Number 31)

Apply the equivalent of 1-1.3 gallons in 100 gallons of water per acre in spring (about April 10 - June 1) to a 6 inch band along sidewalk and edges of shrubs and trees.

For a compressed air shoulder sprayer add 4 table-spoons in 1 gallon of water and spray a 6 inch band 800 feet long.

Hose on attachments can be used for edging of lawns. Consult instruction on applicator for delivering the dosage recommended for edging.

EQUIPMENT TO APPLY THIS PRODUCT: It is essential that this product be applied uniformly with the proper equipment.

Recommended Equipment
A. Trucks in all cases should be equipped with a special speedometer or tachometer reading from 0-15 miles per hour. Truck speedometers are generally inaccurate at this low speed.

A centrifugal pump with a capacity of 100 gallons per minute and 50 pounds nozzle pressure plus off-center nozzles are recommended for application. A series of nozzles activated by valves controlled within the cab permits application at 10-15 miles per hour covering all types of terrain found along highways. The off-center nozzle will cover up to 30 feet from the road on calm days.

B. Booms

1. The Burg-Bean boom gives excellent coverage when properly calibrated and operated. Smaller amounts of water (30-50 gallons per acre) may be used when applying with booms.

2. Small booms mounted on tractors or jeeps are satisfactory when properly nozzled, calibrated and operated. Booms are advised only when there are few or no obstructions.

C. Air Carry Method (Modified Air Blast Sprayer)

This is the newest method for applying. Large, low-pressure droplets ride the air stream and deposit on the difficult to mow areas. It is the only equipment that will economically and satisfactorily spray over wide areas (up to 90 ft.). It will easily cover all types of terrain on shoulders and medians.

USE OF 2,4-D:

2,4-D may be used with this product when control of broadleaf weeds is desired in turf. A low volatile ester or amine salt formulation is compatible.

In some areas weeds may emerge after application. A second application of 2,4-D would be necessary to control these weeds.

Use 2,4-D only on grasses recommended by the manufacturer's label. Follow manufacturer's label when handling or spraying 2,4-D to prevent drift.

EFFECT OF RAIN ON TREATMENT: Application should be made during a period when rain is not expected for 12 hours after treatment. Since the product is water soluble a rain will wash the chemical off the leaf blade before absorption occurs. Once it is absorbed, rain has no effect on performance.

WHERE SHOULD THIS PRODUCT BE USED: It should be used on good turf, three or more years old, which needs frequent mowing, and areas difficult to mow.

This product will improve the safety of mowing by reducing the need for frequent mowing of hazardous locations and eliminating mowing of cuts and hills where a seasonal growth up to 6-11 inches can be tolerated.

CONDITIONS AFFECTING ABSORPTION BY GRASS: It has been found that a greater amount will enter the leaf in the shortest time and give the best results when the plants are growing rapidly in moist soil. It is not absorbed well when:

1. Leaves are wilted and.
2. During periods of extended drought when the soil is dry.

TO CONTROL SPROUTING OF ONIONS IN STORAGE: Apply 5 1/2 pints in 100-150 gallons of water (1 1/4 oz. in 1 gallon) per acre with a ground sprayer. Airplane application can also be made. The spray should be applied when the bulbs are fully mature, have five to eight green leaves and necks soft enough for the tops to fall if they have not already done so. The spray is often applied when 50 percent of the tops have fallen but all tops are still green. This condition usually occurs about two weeks to 10 days before harvest time. Green tops are essential for the absorption.

CAUTION: Avoid too early spraying of edible onions. Spongy bulbs might result if spraying is done earlier than two weeks before maturity.

TO CONTROL SPROUTING OF POTATOES IN STORAGE: Apply 1 gallon in 30-150 gallons of water (1 1/4 oz. in 1 gallon) per acre by ground equipment. Airplane application can be made in irrigated sections of the country. Check your field to see if you have a good set of potatoes. Apply when most of the tubers set are approximately one inch in diameter. This occurs when the few lower leaves show a yellow color. In areas where potatoes flower uniformly this is one week after blossoms fall off the vine, usually in August about 4 to 6 weeks before harvest. Spray potatoes at least 24 hours before rain. Rain occurring within 24 hours after application will reduce effectiveness. Do not use on potato plants grown for seed production.

NOTES:

1. Do not pasture livestock in, or cut hay from treated areas.
2. This product can be used along highways, airports, military installations, golf course fairways, roughs and similar areas. Do not feed treated foliage to livestock or grize treated areas.
3. At recommended application rates it does not normally affect the color of grass. Under conditions of optimum absorption, color modification for a period of several weeks may be encountered. At times treated grass may be a greener color than untreated grass. It may also remain greener for a longer period under drought conditions. No adverse effects on color have been observed from fall application. Some delay in spring "green up" is normal.
4. Do not spray in trees when wind velocity exceeds 15 mph.

CAUTION

Do not contaminate water by cleaning of equipment or disposal of waste. Do not use on potato plants grown for seed production. Do not pasture livestock in or cut hay from treated areas. Do not feed treated forage to livestock.

1 P.A.C. No. 101-111

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