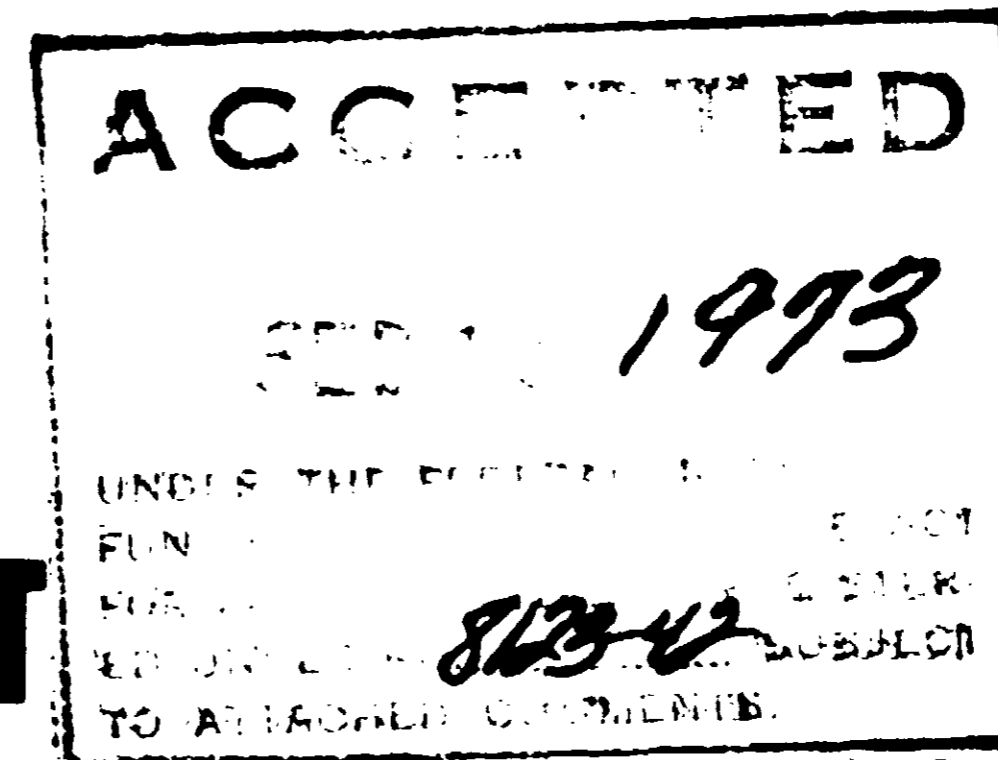


MILLER'S

GROWTH RETARDANT



**FOR CONTROLLING
GRASS, TREES, &
READ ENTIRE LABEL BEFORE USE**

ACTIVE INGREDIENTS:
1,2-Dihydro-3,6-pyridazinone
INERT INGREDIENTS: - - - - -
*Hereinafter called diethanolam
drazide. Equivalent to 6% mal
contains 0.6 pounds maleic hy

For Inhibition of Growth of Trees, Shrubs and Ivy:

Growth Retardant will inhibit growth of various trees, shrubs and ivy. Plants should first be pruned into the desirable shape. After regrowth of 2-4 inches occurs, spray on Growth Retardant. It 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, Xylosmas, Vibumum, Eugenia, Pittosporum, Cissus, Mahns 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 gallon Growth Retardant to 15 gallons of water. Spray this concentration to wet all surfaces of leaves and bark 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 gal. Growth Retardant in 15 gallons of water.

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 Growth Retardant Inhibits Grass Growth:

Growth Retardant 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. Growth Retardant prevents seed head formation and slows down leaf growth.

If an area is not mowed after Growth Retardant is applied, the turf will slowly grow to 5 to 12 inches in height by the end of the growing season as the effect of the Growth Retardant "wears off".

If Growth Retardant is not applied before the seed head is formed, the seed head will expand in spite of the presence of Growth Retardant. If this occurs, at least one week should then be allowed for the Growth Retardant 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 Growth Retardant application should be supplemented by mowing.

DIRECTIONS FOR USE: Apply Growth Retardant 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 5 gallons Growth Retardant in 45 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 Growth Retardant. 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 trans-

Overseeding Rye Grass in Bermuda Grass:

Excessive growth of Bermuda grass on golf greens is often controlled by overseeding and top dressing.

Apply Growth Retardant in late September or early October to Bermuda grasses to produce a good stand. Use 3-1/3 gallons of Growth Retardant should be applied with a calibrated boom. The Bermuda grass should be mowed less than 48 hours after spraying.

To Inhibit Grass Along Edges of Home Lawns (See Note Number 1): Apply the equivalent of 6-2/3 gallons of Growth Retardant (See Note Number 1) to a 6 inch band along sidewalks and edges of shrub beds. Hose on attachments can be used for edging of lawns. A calibrated boom is recommended for edging.

Equipment to Apply Growth Retardant:

It is essential that Growth Retardant be applied uniformly with the following equipment:

Recommended Equipment:

- A. Trucks in all cases should be equipped with a special boom. Truck speedometers are generally inaccurate at this low speed. A centrifugal pump with a capacity of 100 gallons per minute is recommended for applying Growth Retardant. A speedometer permits application at 10-15 miles per hour covering all areas. The boom will cover up to 30 feet from the road on calm days.
- B. Booms:
 1. The Burg-Bean boom gives excellent coverage when (30-50 gallons per acre) may be used when applying Growth Retardant.
 2. Small booms mounted on tractors or jeeps are satisfactory for small areas. They 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 Growth Retardant. It is especially useful for applying Growth Retardant on the difficult to mow areas. It is especially useful for applying Growth Retardant over wide areas (up to 100 feet) and medians.

Growth Retardant should be applied during a period when rain is expected. Growth Retardant is water soluble a rain will wash the chemical into the soil. If Growth Retardant is absorbed, rain has no effect on performance.

Where Should Growth Retardant Be Used:

Growth Retardant should be used on good turf, three or more times a year. It is not recommended for use on lawns to be mowed.

Growth Retardant will improve the safety of mowing by reducing the height of grass. It will also eliminate mowing of cuts and fills where a seasonal growth

to 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.

New Growth Retardant Inhibits Grass Growth:

Growth Retardant 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. Growth Retardant prevents seed head formation and slows down leaf growth.

If an area is not mowed after Growth Retardant is applied, the turf will slowly grow to 5 to 12 inches in height by the end of the growing season as the effect of the Growth Retardant "wears off".

If Growth Retardant is not applied before the seed head is formed, the seed head will expand in spite of the presence of Growth Retardant. If this occurs, at least one week should then be allowed for the Growth Retardant 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 Growth Retardant application should be supplemented by mowing.

DIRECTIONS FOR USE: Apply Growth Retardant 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 5 gallons Growth Retardant in 45 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 Growth Retardant. 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 area covered with debris - this will interfere with coverage and absorption, causing poor results.

Fall application (about Oct. 1 - Nov. 15) Use 6-3/4 gallons Growth Retardant in 45 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 the Growth Retardant 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. Growth Retardant 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 grass becomes 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 Growth Retardant 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 1-1/4 gallons of Growth Retardant in 30 to 40 gallons of water per acre. (If over 40 gallons of water are used per acre, the effectiveness may be reduced.) The effect of treatment should be evident in 8 to 10 days.

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

NOTICE: 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. Seller makes no express or implied warranties, other than specified on the label.

CONTAINER DISPOSAL: Chop holes in top and bottom. Bury 18 inches below soil surface at safe disposal site. Never reuse for food or water.

A centrifugal pump with a capacity of 100 gallons per minute are recommended for applying Growth Retardant. A nozzle permits application at 10-15 miles per hour covering an area that will cover up to 30 feet from the road on calm days.

B. Booms:

1. The Burg-Bean boom gives excellent coverage when used at 30-50 gallons per acre may be used when applying Growth Retardant.
2. Small booms mounted on tractors or jeeps are satisfactory. Operators 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 Growth Retardant. It permits Growth Retardant on the difficult to mow areas and factorially apply Growth Retardant over wide areas (up to 100 feet) and medians.

Growth Retardant should be applied during a period when the Growth Retardant is water soluble a rain will wash the chemical. If Growth Retardant is absorbed, rain has no effect on performance.

Where Should Growth Retardant Be Used:

Growth Retardant should be used on good turf, three or more times a year to mow.

Growth Retardant will improve the safety of mowing by reducing the need for eliminating mowing of cuts and fills where a seasonal growth is present.

Conditions Affecting Absorption of Growth Retardant by Grass: It has been found that a greater amount of Growth Retardant is absorbed when the plants are growing rapidly in moist soil. Growth Retardant is not absorbed when:

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

NOTES:

1. Do not pasture livestock in, or cut hay from treated areas.
2. Growth Retardant can be used along highways, airports, and other areas. Do not feed treated foliage to livestock or game.
3. At recommended application rates Growth Retardant does not affect optimum absorption, color modification for a period of 3 to 4 weeks. It may be a greener color than untreated grass. It may also remain greener for a longer period under dry conditions served from fall application. Some delay in spring greening may be observed.
4. Do not spray on trees when wind velocity exceeds 15 mph.

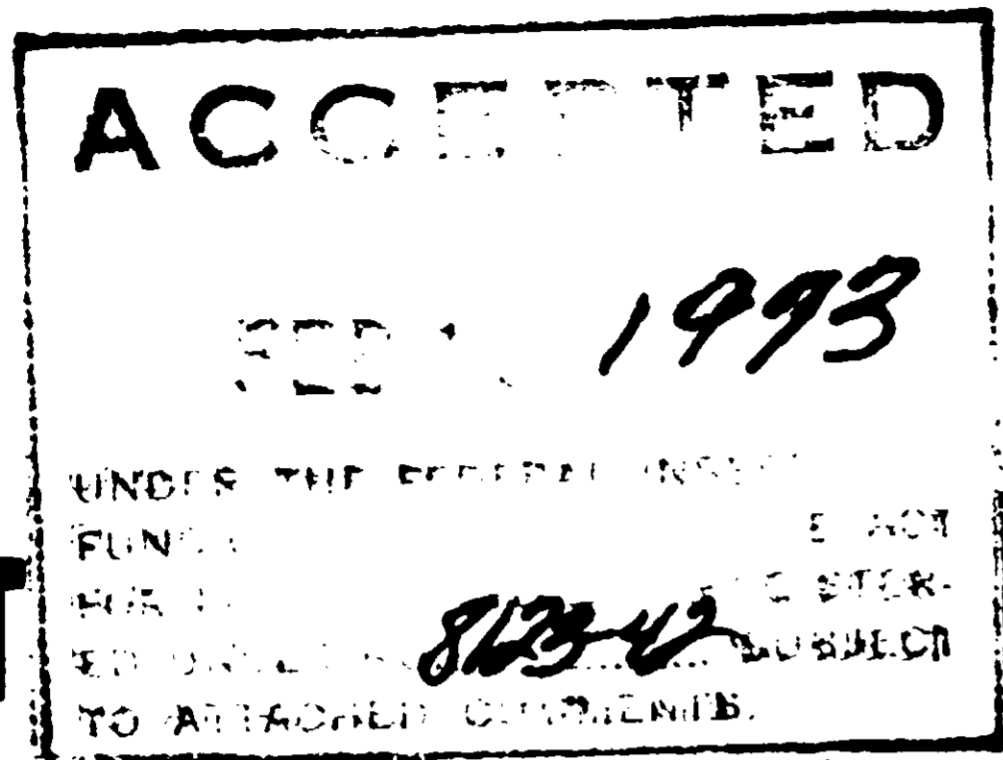
E.P.A. REG. NO. 8123-42

CAUTION: KEEP OUT OF REACH OF CHILDREN
Avoid inhalation of mist.
Avoid contact with skin, eyes or clothing.
May be harmful if swallowed.

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13831 So. Emerald Avenue
Chicago, Illinois 60627



FOR CONTROLLING GROWTH OF GRASS, TREES, SHRUBS AND IVY

READ ENTIRE LABEL BEFORE USING THIS PRODUCT

ACTIVE INGREDIENTS:

1,2-Dihydro-3,6-pyridazinedione, diethanolamine salt* 11.6%

INERT INGREDIENTS: 88.4%

*Hereinafter called diethanolamine salt of maleic hydrazide. Equivalent to 6% maleic hydrazide. Product contains 0.6 pounds maleic hydrazide equivalent per gal.

GROWTH RETARDANT

Plants should first be pruned into the desirable shape. It can also be applied in spring as soon as new

poplar, oak, mulberry, black walnut, maple, sweet

plum, Viburnum, Eugenia, Pittosporum, Cissus,

pruned on the upper half of the tree if top terminal growth, spray the half of the tree on the pruned side. For

concentration to wet all surfaces of leaves and bark to

all surfaces of leaves and bark. Consult instructions for use in 15 gallons of water.

spray is applied to vigorous new growth.

s started.

caused by the plant fluids to the active growth areas to slow seed head formation and slows down leaf growth.

Plants slowly grow to 5 to 12 inches in height by the end of the season.

The seed head will expand in spite of the presence of Growth Retardant allowed for the Growth Retardant to circulate through the plant. Inhibition of subsequent growth will

Application should be supplemented by mowing.

Once brown grass will not absorb the spray. One application with correct maintenance procedures, will produce re-

Growth Retardant in 45 gallons of water per acre to reduce or

Use is ideal for applying Growth Retardant. This is

Overseeding Rye Grass in Bermuda Grass:

Excessive growth of Bermuda grass on golf greens is often a problem in the fall after verticutting, fertilization, overseeding and top dressing.

Apply Growth Retardant 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 3-1/3 gallons of Growth Retardant in 50 gallons of water per acre. Growth Retardant should be applied with a calibrated boom. The Bermuda grass must be in good condition. Overseed no sooner than 48 hours after spraying.

To Inhibit Grass Along Edges of Home Lawns (See Note Number 3):

Apply the equivalent of 6-2/3 gallons of Growth Retardant in 100 gallons of water per acre in spring (about April 10 - June 1) to a 6 inch band along sidewalks and edges of shrubs and trees.

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

Equipment to Apply Growth Retardant:

It is essential that Growth Retardant 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 applying Growth Retardant. 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 Eurg-Bean boom gives excellent coverage when properly calibrated and operated. Smaller amounts of water (30-50 gallons per acre) may be used when applying Growth Retardant 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 Growth Retardant. Large, low-pressure droplets ride the air stream and deposit Growth Retardant on the difficult to mow areas. It is the only equipment that will economically and satisfactorily apply Growth Retardant over wide areas (up to 90 ft.). It will easily cover all types of terrain on shoulders and medians.

Growth Retardant should be applied during a period when rain is not expected for 12 hours after treatment. Since Growth Retardant is water soluble a rain will wash the chemical off the leaf blade before absorption occurs. Once Growth Retardant is absorbed, rain has no effect on performance.

Where Should Growth Retardant Be Used:

Growth Retardant should be used on good turf, three or more years old, which needs frequent mowing, and areas difficult to mow.

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cord-
other
than

below

CAUTION: KEEP OUT OF REACH OF CHILDREN
Avoid inhalation of mist.
Avoid contact with skin, eyes or clothing.
May be harmful if swallowed.

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Frank Miller & Sons, Inc.
13831 So. Emerald Avenue
Chicago, Illinois 60627

per acre application of 30-50 gallons per acre covering all types of terrain (including highways) - the structure of the will cover up to 30 feet from the road on calm days.

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Where Should Growth Retardant Be Used:

Growth Retardant should be used on good turf, three or more years old, which needs frequent mowing, and areas difficult to mow.

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

Conditions Affecting Absorption of Growth Retardant by Grass:

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

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

NOTES:

1. Do not pasture livestock in, or cut hay from treated areas.
2. Growth Retardant can be used along highways, airports, military installations, golf course fairways, rough and similar areas. Do not feed treated foliage to livestock or graze treated areas.
3. At recommended application rates Growth Retardant 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 on trees when wind velocity exceeds 15 mph.

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NET CONTENTS _____