

46-204

ROYAL SLO-GRO*

GROWTH RETARDANT — WITH SORBATRAN*
CONTROLS GROWTH OF GRASS, TREES, SHRUBS AND IVY

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS CAUTION

Avoid contact with skin, eyes or clothing. In case of contact immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

ENVIRONMENTAL HAZARDS

Keep out of lakes, ponds or streams. Do not contaminate water by cleaning of equipment or disposal of wastes.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

STORAGE AND DISPOSAL

PESTICIDE DISPOSAL — Pesticide, spray mixture or rinse water should be disposed of in a landfill approved for pesticides or buried in a safe disposal site. Do not contaminate water by cleaning of equipment or disposal of wastes.

EQUIPMENT CLEANING — ROYAL SLO-GRO is not corrosive to spray equipment. Following applications all spray equipment should be thoroughly rinsed with water.

CONTAINER STORAGE AND HANDLING The active ingredient in ROYAL SLO-GRO will separate from the surfactant at temperatures above 134°F. If containers are exposed to excessive heating, the contents can be remixed by lowering the temperature of the entire formulation below 134°F. and applying agitation. Always shake or stir well before use.

CONTAINER DISPOSAL — Triple rinse (or equivalent) and dispose in an incinerator or landfill approved for pesticide containers, or bury in a safe place.

ACCEPTED

MAR 26 1981

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 440-94

UNIROYAL

COMPOSITION

Active ingredient (Percent by weight)	
Potassium salt of 1,2-dihydro-3,6-pyridazinedione.....	21.7%
Inert Ingredients.....	78.3%
TOTAL.....	100.0%

(One gallon contains 1.5 pounds as maleic hydrazide)

U.S. Patent No. 3,503,729

**KEEP OUT OF REACH OF CHILDREN.
CAUTION!**
FOR PRECAUTIONARY STATEMENTS —
SEE LEFT PANEL

*Trademark of UNIROYAL, Inc.
UNIROYAL CHEMICAL — Division of UNIROYAL, Inc.
NAUGATUCK, CONNECTICUT 06770
EPA Reg. No. 400-94
EPA Est. No.

NET CONTENTS:

11-15-80

GENERAL INFORMATION

ROYAL Slo-Gro growth retardant is an improved version of standard Slo-Gro. The advantage of the new product is a formulation improvement which allows a lower rate of active ingredient to achieve results equivalent to standard Slo-Gro used at a higher rate. Royal Slo-Gro is a water-based formulation which goes into solution readily. After initial mixing or stirring with dilution water, the spray solution requires no additional agitation.

The growth regulant action is systemic in nature. The chemical must first be absorbed into the growing plant. It then moves to the active growing site where it stops new growth thereby reducing the need for frequent mowing, pruning or clipping.

The following precautions should be observed to obtain the best results with Royal Slo-Gro:

1. Apply only to **green, vigorous** plants.
2. Do not use if vegetation is wilted or during periods of extended drought as absorption will be poor and results will be unsatisfactory.
3. Time treatment to allow a minimum rain-free period of **at least 12 hours** after application to insure complete absorption of the chemical.
4. Spraying on relatively calm days (wind velocity under 15 mph) with equipment that will apply the product uniformly is essential for best results.
5. All turf areas treated should contain well established perennial grasses at least three years old.
6. Do not add any extra wetting agents or commercial spray adjuvants to Royal Slo-Gro spray solutions.

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DIRECTIONS FOR USE ON GRASS

Royal Slo-Gro is used mostly as a substitute for mechanical mowing on various commercial turf locations such as hard-to-mow areas along highways, airports property, industrial areas and golf course roughs. It can be used for grass inhibition on all turf areas except those under heavy foot traffic (such as golf course fairways and greens, except for *Poa annua* control) and fine lawns where esthetic appearance is more important than reducing a maintenance chore.

On grass areas where broad leaf weed growth is a problem, Royal Slo-Gro may be used in tank-mix combination with low volatile ester or amine formulations of 2,4-D. One pound of 2,4-D per acre should be used with Royal Slo-Gro in most spring applications. Follow dosage and precautionary information on the 2,4-D label. If weeds have not emerged at time of Slo-Gro application, a separate, later spray of 2,4-D is recommended to control these weeds.

SPECIES RESPONSE: Perennial grasses effectively retarded by Royal Slo-Gro are: bluegrasses, fescues, bromegrass, orchard grass, quackgrass and perennial rye. Bent grass can be inhibited, but often shows discoloration effects. Royal Slo-Gro will injure St. Augustine grass and should not be used on this species.

MODE OF ACTION: The growth regulant action prevents seed head formation and slows down leaf growth. If the application is timed properly, no significant growth will occur for several weeks after the treatment. As the effect gradually "wears off," the turf may grow to 6-12 inches in height by the end of the growing season. One or more mechanical mowings may be required if grass height must be kept under 6 inches.

TIMING: One application per year either Spring or Fall should be used. At either time, the area to be treated must be green and actively growing. Turf to be treated must be free of leaf cover or other debris which would prevent direct contact of the spray with the grass.

SPRING TREATMENTS

This is the best time to use a Royal Slo-Gro application when dandelion and forsythia are in full bloom. Application (usually in April when the new grass growth is green and 2-3 inches high) will curtail the normal spring flush of growth and eliminate the need to mow for at least several weeks. If the time or weather does not permit early application and grass is 6 inches or more in height, the product should be applied and the area mowed about 7 days later. This procedure helps to prevent "stretching" of the seed head in the treated area. Under no conditions, should the turf be mowed to a height under 3-4 inches to avoid a "scalped" appearance of the retarded grass.

DOSAGE: Use 1½ to 2 gallons of Royal Slo-Gro in 30-50 gallons of water per acre. Application may be made with standard booms or off-center nozzles systems. Calibrated

nozzles and accurate low speed speedometers should be used to insure proper dosage. Spraying should not be done on excessively windy days. All reasonable care should be taken to apply the product uniformly for best results.

AUTUMN TREATMENTS

Royal Slo-Gro may also be applied late in the growing season to reduce grass growth the following spring. Treatment should be made while grass is still green but before it becomes dormant (usually during October). An additional benefit of Fall treatment is control of wild onion, garlic and biennial type weeds such as dandelion and plantain. Since grass growth is inhibited the following spring, the area will "green up" about two weeks later than untreated turf.

DOSAGE: Use 3 gallons of Royal Slo-Gro in 30-50 gallons of water. Application procedures are similar to those used for spring treatment. Do not spray if there is a cover of fallen leaves or non-uniform results will be obtained.

SPECIAL NOTE: Do not apply Royal Slo-Gro during the summer or other times when the permanent grasses are dormant under drought conditions.

SPECIAL GRASS AREAS

GOLF COURSE FAIRWAYS: Royal Slo-Gro may be used to reduce *Poa annua* (annual blue grass) in golf course fairways. Recommended procedure is to first mow area twice in normal sequence (usually 5 to 6 days apart). When the third mowing is needed and before first *Poa annua* seed heads appear - spray 2 quarts of Royal Slo-Gro in 30-40 gallons per acre. Do not use over 40 gallons per acre as effectiveness may be reduced. The effect of this treatment should be evident in 8-10 days showing up as a reduction in *Poa annua* reseeding with little retardation of desirable grass growth.

HOME LAWNS: Royal Slo-Gro is not recommended as an overall treatment for prime lawns or other fine turf areas.

Royal Slo-Gro can be used as a band or edge treatment of lawns where it is difficult to trim mechanically. Examples are: Along walls, around trees, rocks, etc.

Small area applications are made in the spring with conventional compressed air tank sprayers or hose-end attachments. Dosage rate is 5 tablespoons of Royal Slo-Gro per gallon of water to treat a 400 sq. ft. area.

SPECIAL NOTE: Because of the difficulties in applying Royal Slo-Gro at a uniform rate and dosage to small areas, some color modification may occur. Any slightly abnormal color of the treated area is a temporary effect. At times, the treated grass may be a greener color than untreated turf.

DIRECTIONS FOR USE ON TREES, SHRUBS AND IVY

Royal Slo-Gro is used to suppress excessive vegetative growth and reduce the need to mechanically prune or shear. Best procedure is to apply to plants that have been previously pruned into the desired shape. Some regrowth should be allowed before treatment to hide fresh cut ends of limbs or stems to prevent a barren appearance of the treated plant. Royal Slo-Gro should only be used on vigorous, healthy plants.

The following trees can be treated with Royal Slo-Gro:

Acacia, Black	Liquid Amber (Sweet Gum)
Alder	Linden
Ash	Madrone
Bay (California Laurel)	Manzanita
Birch	Maple
Box-Elder	Mulberry
Buckeye, California	Pine, Monterey
Catalpa	Plane (Sycamore)
Cypress Monterey	Poplar
Dogwood, Pacific	Redbud, Western
Elderberry	Redwood
Elm	Walnut
Eucalyptus	Wax-Myrtle, California
Fir, Douglas	Willow, Black
Grevillea (Silk Oak)	Oak

Royal Slo-Gro will effectively retard excessive vegetative growth on the following shrubs:

Cissus	Pittosporum
Eugenia	Privet
Forsythia	Pyracantha
Honeysuckle	Viburnum
Myrtus	Xylosoma

Royal Slo-Gro may be used to inhibit the growth of **Hahn** and **Algerian Ivy**. A special use for Royal Slo-Gro is for weed control in **Ice Plant**. It may be used for both emerged broadleaf weed and annual grass control without injury to the herbaceous growth.

DOSAGE: Royal Slo-Gro is recommended for all uses at a rate of 1½ to 2 gallons per 100 gallons of water. This rate is equivalent to 4 to 5 tablespoons (2-2½ fl. ozs.) per gallon for small sprayers or hose-end attachments.

PROCEDURES: All areas to be inhibited should be sprayed to drip-point covering all surfaces of leaves and stems. If only one section of a tree is to be controlled, spray just that section and normal growth will continue in the unsprayed sections.

Best results are obtained when spray is applied to green, vigorous, new growth. On trees, new leaves should be fully expanded when the treatment is made. Slo-Gro should be used once a year - in spring, after new growth has started, or in early summer - usually after pruning when new regrowth is about 2 to 4 inches in length.

WARNINGS AND PRECAUTIONS

1. Royal Slo-Gro should be used only for grass, tree and shrub inhibition. Do not use on tobacco, potato, onions, citrus or agricultural crops.
2. Do not pasture livestock in, or cut hay from, treated areas.
3. Royal Slo-Gro can be used along highways, airports, military installations, roughs of golf courses (except *Poa annua* control on fairways) and similar areas. Do not use on home lawns except along edges.
4. At recommended application rates Royal Slo-Gro 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.

5. Do not spray on trees when wind velocity exceeds 15 mph. Even though Royal Slo-Gro is non-volatile, no drift should be permitted onto nearby crops.
6. Observe all cautions and limitation on labeling of all products used in mixture.

IMPORTANT NOTICE — Seller warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

NOTE: ALWAYS STIR OR SHAKE WELL BEFORE USING.

TIMING

On deciduous trees, best results are obtained when winter trimmed or untrimmed trees are injected with ROYAL SLO-GRO solution after the first flush of leaves is 3/4 to fully developed and before shoot growth begins. Broadleaf evergreens may be treated during seasonal flushes of growth.

NOTES:

1. Do not inject ROYAL SLO-GRO into drought-stressed trees or trees that do not appear healthy.
2. Do not inject ROYAL SLO-GRO into bearing fruit or nut trees or sugar maple trees tapped for sugar.

IMPORTANT NOTICE — Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with the directions and instructions specified on the label under normal conditions of use, but this warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of this product, contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller and buyer assumes the risk of any such use.

ROYAL SLO-GRO®

FOR RETARDING THE GROWTH
OF TREES BY INJECTION
EPA Registration No. 400-94



COMPOSITION

Active ingredient (Percent by weight)	
Potassium salt of 1,2-dihydro-3	
6-pyridazinedione.....	21.7%
Inert Ingredients:.....	78.3%
TOTAL:.....	100.0%

(one gallon contains 1.5 pounds as maleic hydrazide)
U.S. Patent No. 3,503,729

All applicable directions, restrictions and precautions on the EPA Registered label are to be followed.

This label must be in the possession of the user at the time of the pesticide application.

KEEP OUT OF REACH OF CHILDREN.

CAUTION!

**THIS LABEL IS IN ADDITION TO THE
STANDARD FEDERAL LABEL
PRINTED ON THE CONTAINER.**

*Trademark of UNIROYAL, Inc.
UNIROYAL CHEMICAL — Division of UNIROYAL, Inc.
NAUGATUCK, CONNECTICUT 06770

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**DIRECTIONS FOR USE
TO RETARD GROWTH OF TREES BY INJECTION
GENERAL INFORMATION**

ROYAL SLO-GRO may be used to retard growth of certain broadleaf tree species along utility rights-of-way, city streets, parks, and other areas where there is a need for reducing the frequency of manual pruning. For control of growth, solutions of ROYAL SLO-GRO are injected into the tree trunk as described below.

MIXING

Pour the amount of ROYAL SLO-GRO indicated into a partially filled tank, then add the necessary quantity of water to complete the desired volume of solution for injection.

EQUIPMENT

Best results are obtained when the total volume of injected ROYAL SLO-GRO is distributed evenly throughout the tree. The pressurized injection system as developed by the United States Department of Agriculture, Nursery Crops Research Laboratory, Delaware, Ohio (G. K. Brown - 1978 Journal of Arboriculture 4:7-13) has proven effective for injection of ROYAL SLO-GRO.

APPLICATION TECHNIQUE

Trees that are 6 to 16 inches in DBH (diameter breast height) require 3 injection holes equally spaced around the tree trunk about 40 inches above the ground. Trees greater than 16 inches DBH require 6 injection holes. Drill injection holes horizontally into the trunk, so that the growth regulator will be injected into the outer sapwood to facilitate rapid uptake. Injection holes should not penetrate the wood more than 2 1/2 inches and drill size should not exceed 7/32 inch. Use injection pressures of 100 to 200 psi to achieve rapid uptake of solution. Do not exceed pressure 200 psi.

Species	Pints of ROYAL SLO-GRO in 1 gallon of water	ml of ROYAL SLO-GRO in 1 liter of water
Sycamore (Platanus occidentalis)	3	368
London plane tree (Platanus acerfolia)	3	368
Silver maple (Acer saccharinum)	3	368
Eucalyptus (Eucalyptus spp.)	3	368
Cottonwood (Populus deltoides)	4 1/2	546
Big leaf maple (Acer macrophyllum)	5	614

VOLUME

The volume of ROYAL SLO-GRO solution injected is dependent upon the tree size. The total injection volume (TIV) of ROYAL SLO-GRO solution is determined by measuring the diameter of the tree at breast height (DBH) and utilizing one of the following formulas:

	Number of injection holes required	Total Injection Volume in ml (TIV)	Volume per Injection hole
For trees 6-16 inches DBH	3	$TIV = (DBH)^2 \times 1.59$	$\frac{TIV}{3}$
For trees greater than 16 inches DBH	6	$TIV = DBH \times 25.45$	$\frac{TIV}{6}$