

BASIC LABEL

ROYAL MH-30 SG

WATER-SOLUBLE GRANULE GROWTH RETARDANT

ACCEPTED

FOR TOBACCO, POTATOES AND ONIONS

NOV - 5 1982

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 740-165

UNIROYAL

COMPOSITION

Active ingredient (Percent by weight)	
Potassium salt of 1,2-dihydro-3,6-pyridazinedione	80.0%**
Inert ingredients	20.0%
TOTAL	100.0%

** Contains 60% by weight of maleic hydrazide
U.S. Patent No. 3,503,729

NOTES

1. To control tobacco suckers apply ROYAL MH-30 SG at the proper time. Too early spraying may prevent normal development of top leaves. Too late spraying will allow some sucker growth. FULL FLOWER is the stage when 90% of your plants have begun to shed their first flowers.
2. Rains occurring within 6 hours after spraying may reduce effectiveness. Should wash off occur within 6 hours, a single repeat application may be made.
3. Follow dosage recommendations carefully and spray field uniformly.
4. Compatibility studies with ROYAL MH-30 SG and tobacco insecticides have not been completed. Separate application is recommended.
5. Do not use on tobacco or potato plants grown for seed production.
6. Do not spray tobacco in the middle of hot, dry days when leaves are severely wilted. For best results spray during the early morning, all day on cloudy days, avoiding the late afternoon or night applications. (Use a nozzle delivering a fine mist spray.)
7. Closely hand-suckered tobacco or tobacco treated with ROYAL MH-30 SG will not ripen as rapidly as poorly suckered tobacco. Also, under some conditions ROYAL MH-30 SG treated tips have a tendency to turn yellow prematurely. This is not harmful and does not mean that your tobacco is ripe. Therefore, do not harvest tobacco treated with ROYAL MH-30 SG by using time and color of the leaves as your only guide to ripeness. Use other characteristics indicative of ripeness such as:
 - a. Fading of color from midrib.
 - b. Change in apparent leaf texture.
8. If tobacco plants have been grown under drought conditions, absorption of ROYAL MH-30 SG will be slow and results may not be as good as plants treated under normal conditions.
9. Too little ROYAL MH-30 SG will result in less than the desired control, too much reduces quality of tips.
10. Use only one application of ROYAL MH-30 SG per season.
11. Allow at least 7 days between application before harvest.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS WARNING

Cause eye irritation. Do not get in eyes, on skin or on clothing. Harmful if swallowed.

ENVIRONMENTAL HAZARDS

Do not apply directly to water. 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

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE DISPOSAL — Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of according to applicable Federal, State or local procedures.

EQUIPMENT CLEANING — ROYAL MH-30 SG is not corrosive to spray equipment. Following applications all spray equipment should be thoroughly rinsed with water.

STORAGE — Store in dry location.

CONTAINER DISPOSAL

Plastic Containers: Triple rinse (or equivalent) and offer for recycling or reconditioning, or dispose of in a sanitary landfill or by incineration if permitted by State and local authorities.

Fiber Drum: Dispose of liners according to applicable Federal, State or local procedures. Dispose of Drums in a sanitary landfill or by incineration if permitted by State and local authorities.

KEEP OUT OF REACH OF CHILDREN.

WARNING!

STATEMENTS OF PRACTICAL TREATMENT

If swallowed, induce vomiting.

If in eyes, flush with plenty of water and call a physician.

If on skin, wash thoroughly with soap and water.

SEE LEFT PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

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

NET CONTENT,



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Lot No.

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12. Even though ROYAL MH-30 SG is non-volatile no drift should be permitted onto nearby crops. Particular care should be taken to prevent drift when aerial applications are being made.
13. Spray potatoes or onions at least 24 hours before rain or applying overhead irrigation. Rain or overhead irrigation occurring within 24 hours after application will reduce effectiveness.
14. At least a 2-week interval should be allowed between a ROYAL MH-30 SG application to potatoes and the use of a vine killer.
15. Occasional injury to the terminal growth of potato foliage has been observed following the application of ROYAL MH-30 SG. However, trials and usage indicate that this does not adversely affect the yield or the quality of the potato tubers at harvest if the chemical is applied according to label recommendations.
16. Uneven application may result in bud-end cracking and/or elephant hids on potato tubers.
17. For optimum uptake, plants should not be under water stress either before or after application.

MIXING INSTRUCTIONS

Fill the spray tank with the required amount of water. Add the desired amount of ROYAL MH-30 SG. ROYAL MH-30 SG will dissolve easily with minimum agitation.

TOBACCO

DIRECTIONS FOR USE

To prevent sucker development on flue-cured, burley, dark fire, Maryland and cigar (Pennsylvania, and Wisconsin) tobacco.

ROYAL MH-30 SG is a potassium salt formulation of maleic hydrazide used to prevent sucker development in tobacco. Since ROYAL MH-30 SG is absorbed and moves inside the tobacco plant, spraying the whole plant is not necessary. Best results are obtained by spraying the upper 1/3 to 1/2 of the plant. It is very important to apply equal amounts of ROYAL MH-30 SG to each plant at the correct time to obtain satisfactory sucker control.

TIMING

For flue-cured, burley, dark fire and Maryland tobacco:

1. If all plants flower at about the same time, proceed as follows: As soon as the plants are in FULL FLOWER, top the plants and move all suckers from the entire field within 24 hours after topping. (See notes 1-12.)
2. If there is a wide range in the time of flowering, the following procedure should be used:
 - a. Go through the field and top the few early flowering plants.

- b. Wait until the remaining plants are in FULL FLOWER. Top the plants and move all suckers from the entire field and apply ROYAL MH-30 SG within 24 hours after topping. (See notes 1-12.)
- c. Top leaves to be harvested should be at least 6 to 8 inches long at time of spraying.

For Pennsylvania cigar tobacco:

1. If your field flowers uniformly:
 - a. Top when about 1/3 to 1/2 of your plants show one or more open flowers on each head.
 - b. Wait three days after topping.
 - c. Spray ROYAL MH-30 SG. For best results ROYAL MH-30 SG should be sprayed on dry or nearly dry leaves. Avoid spraying on leaves covered with dew.
2. If your field doesn't flower uniformly:
 - a. When flowering in your field is particularly uneven you should top when about 50 to 60 percent of the plants show one or more open flowers per head.
 - b. Wait three days after topping and remove by hand any suckers more than two inches long.
 - c. Spray ROYAL MH-30 SG over your entire field.

For Wisconsin cigar tobacco:

1. Top the field when most of the plants in your field are in full flower.
2. Remove, by hand, any suckers larger than one or two inches.
3. Spray within 24 hours after topping and removal of suckers.

HOW TO SPRAY:

ROYAL MH-30 SG may be applied with either a conventional sprayer or with a compressed air shoulder sprayer.

1. ROYAL MH-30 SG can be applied by spraying one or more rows at a time, wetting upper 1/3 to 1/2 of plant.
2. Compressed air shoulder sprayer with single nozzle spraying a wide cone. Spray one side of each tobacco row while walking at a constant rate. Use up and down motion of spray nozzle to moisten upper 6 to 8 leaves of each plant. Apply equal amounts of spray to each plant.

Rate of Application:

Apply the indicated amounts of ROYAL MH-30 SG in 40 to 50 gallons of water per acre. Apply at 40 to 50 psi.

For flue-cured, burley, cigar (Pennsylvania, Wisconsin) and Maryland tobacco: Apply 8 to 10 ounces of ROYAL MH-30 SG per 1000 plants. Example: use 4 to 5 pounds ROYAL MH-30 SG for 8000 plants per acre.

For dark tobacco: Apply 15 ounces of ROYAL MH-30 SG per 1000 plants. Example: use 7.5 pounds ROYAL MH-30 SG for 8000 plants per acre.

TANK MIX TREATMENT:

For sucker control of flue-cured tobacco, a tank mix of ROYAL MH-30 SG plus ROYAL TAC-M may be made.

Timing: Use a tank mix of ROYAL MH-30 SG plus ROYAL TAC-M at early flower growth stage. Tobacco should have been topped and any suckers over 3" long removed. This tank mix usually follows a contact sucker chemical application applied in the button stage.

How to spray: The spray mixture should be directed to the upper 1/3 of the plant and the sprayer operated at low pressure, similar to a contact application, to insure that spray droplets are large enough for some of the mixture to run down the stalk.

RATE OF APPLICATION: Mix 3.75 pounds of ROYAL MH-30 SG and 1 1/2 gallons of ROYAL TAC-M in about 47 gallons of water for each acre. Maintain good agitation after mixing and while spraying.

NOTE: Use only one application of this tank mix per growing season. Read and observe label precautions appearing both ROYAL MH-30 SG and ROYAL TAC-M before using.

ONIONS

TO CONTROL SPROUTING, INJURY IN STORAGE

Timing: ROYAL MH-30 SG should be applied when the bulbs are fully mature, have at least 5 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 of ROYAL MH-30 SG.

Rate of Application:

NOTE: Uniform, complete coverage is essential for good sprout control.

Ground Application: Use 1-1/3 pounds of ROYAL MH-30 SG in a minimum of 30 gallons of water per acre. Aerial Application: Use 3-1/3 pounds of ROYAL MH-30 SG in a minimum of 10 gallons of water per acre. Do not fly at heights of less than 8-12 feet. Maintaining this height will give more uniform coverage and aid in preventing an excessive build-up of chemical on the left side of the treated swath. These heights should be reduced as cross-wind velocities exceed 2-4 MPH.

Spray Adjuvants:

West of Rocky Mountains: Use Regalaid or X-77 at the rate of 1 quart per 100 gallons of spray solution in arid sections of the U.S. Either product will help provide better coverage and aid in translocation of the ROYAL MH-30 SG. East of Rocky Mountains: Use of surfactants is normally not recommended.

Temperature:

ROYAL MH-30 SG should be applied at temperatures below 85°F or at temperatures below 80°F if the temperature is expected to exceed 85°F. ROYAL MH-30 SG is water soluble and under high temperature and low humidity conditions will crystallize on the leaf surface and not be absorbed into the plant.

CAUTION:

Avoid spraying edible onions too early. Spongy bulbs may result if spraying is done earlier than two weeks before maturity.

Variables:

Use of ROYAL MH-30 SG should be combined with selection of a good-keeping variety. Do not apply to onion varieties with poor-keeping quality. ROYAL MH-30 SG will not make poor-keeping varieties equal to good-keeping varieties.

POTATOES

BENEFITS

Sprout Control:

ROYAL MH-30 SG will control sprouting of potatoes in storage. However, ROYAL MH-30 SG will not make a poor-keeping potato such as Norchip or Norchip into a good-keeping potato.

Reduction of Volunteer Potatoes:

ROYAL MH-30 SG will reduce the number of volunteer potatoes the following spring because of its ability to control sprouting. If it is applied at the proper time it will also reduce the number of undersize potatoes left in the field, which also reduces the potential for volunteers.

May Improve Grade:

ROYAL MH-30 SG may improve the grade of potatoes, especially on the Russet Burbank variety, if the application is made prior to any secondary tuber formation.

Undersize Potatoes:

ROYAL MH-30 SG will help to reduce any additional "sets" of potatoes, thus decreasing the number of undersize potatoes in the field at harvest.

Reduce Shrinkage:

ROYAL MH-30 SG applications can reduce shrinkage in storage up to 15 percent.

DIRECTIONS FOR USE

Timing:

Timing is important. To allow translocation of chemical down to the tubers ROYAL MH-30 SG should be applied after tubers are formed and while vines are still green and are free from insects, diseases or other damage. Time of application may occur as early as 2-3 weeks past full bloom when the primary and secondary inflorescences have lost most of their flowers and a few third order inflorescences and buds are present.

This occurs when a few lower leaves show a yellow color. Application prior to this time may result in reduced size of potatoes and phytotoxicity.

The following tuber sizes may also be used as a guide, provided the above conditions have been met.

Russet Burbank:

The smallest tubers that are required to reach a minimum size of 4 1/2 oz. must be 1 1/2" in diameter (and elongating) at time of spraying.

Norchip or Norchip:

The smallest tubers that are required to reach maximum size must be 2" or more in diameter at time of spraying.

Other Varieties:

The smallest tubers that are required to reach maximum size should be 1 1/2" in diameter at time of spraying.

Rate of Application:

NOTE: Uniform, complete coverage is essential for satisfactory results.

Ground: Use 5 pounds of ROYAL MH-30 SG in a minimum of 30 gallons of water per acre.

Aerial: Use 5 pounds of ROYAL MH-30 SG in a minimum of 10 gallons of water per acre. Do not fly at heights of less than 8-12 feet. Maintaining this height will give more uniform coverage and aid in preventing an excessive build up of chemical on the left side of the treated swath. These heights should be reduced as cross-wind velocities exceed 2-4 MPH.

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IMPORTANT NOTICE — Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on label when used in accordance with the directions and instructions specified on the label under normal conditions of use. But neither this 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.

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