



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505C)
401 M St., S.W.
Washington, D.C. 20460

EPA Reg. Number:
400-452

Date of Issuance:
FEB 8 1984

Term of Issuance:
Conditional

Name of Pesticide Product:
Royal MH-30 XTRA

NOTICE OF PESTICIDE:
 Registration
 Reregistration
(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Uniroyal Chemical Co., Inc.
74 Amity Rd.
Bethany, CT 06524-3402

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.
2. Add the phrase "EPA Registration No. 400-452" to your label before you release the product for shipment.
3. Submit one (1) copy of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

Signature of Approving Official:

[Handwritten Signature]

Date:

FEB 8 1984

page 2
EPA Reg. No. 400-452

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Cynthia Giles-Parker
Product Manager (22)
Fungicide-Herbicide Branch
Registration Division (7505C)

Enclosure

ROYAL MH-30[®] XTRA

CONTROLS SPROUTING OF POTATOES AND ONIONS
CONTROLS VOLUNTEER POTATOES
CONTROLS SIZE AND SHAPE OF POTATOES

345
Jacket

ACCEPTED
with COMMENTS
in EPA Letter Dated:

ROYAL MH-30 XTRA contains 2.25 pounds of maleic hydrazide per U.S. gallon,
compared to 1.5 pound in ROYAL MH-30

PR 93-6

FEB 8 1994



COMPOSITION

400-452

Active Ingredient: (% by weight)	
Potassium salt of 1,2-dihydro-3,6-pyridazinedione	30.3%*
Inert Ingredients	69.7%
Total:	100.0%

*Contains 2.25 pounds of maleic hydrazide per U.S. gallon
*Contains 270 grams of maleic hydrazide per liter

UNIROYAL CHEMICAL COMPANY, INC., Middlebury, CT 06749 003WPS
EPA REG. NO. 400-
EPA EST. NO.

NET CONTENTS

KEEP OUT OF REACH OF CHILDREN CAUTION

IF IN EYES: Flush eyes with plenty of water. Call a physician if irritation persists.
IF ON SKIN: Wash with plenty of soap and water.

STATEMENT OF PRACTICAL TREATMENT PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

WPS
LPR 93-7
93-111

Causes moderate eye injury. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and Other Handlers Must Wear: Long-sleeved shirt and long pants; waterproof gloves; shoes plus socks.
Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.
When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

- Users should:
- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
 - Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by disposal of equipment washwaters.

PR 93-3 and 93-8

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
Do not apply this product through any type of irrigation system.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For air requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

WPS ↑

BEST AVAILABLE COPY

Use the product only as directed. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is coveralls, waterproof gloves, shoes plus socks.

NOTES

1. Follow dosage recommendations carefully and spray field uniformly.
2. Do not use on potato plants grown for seed production.
3. Even though ROYAL MH-30 XTRA 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.
4. 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.
5. At least a 2-week interval should be allowed between a ROYAL MH-30 XTRA application to potatoes and the use of a vine killer.
6. Uneven application may result in budend cracking and/or "elephant hide" on potato tubers.
7. To obtain desired results plants should not be stressed from either too little or excessive water before or after application.
8. **IMPORTANT: GEOGRAPHICAL RESPONSE OF POTATO PLANTS.**

EAST OF THE ROCKY MOUNTAINS

Occasional injury to the terminal growth of potato foliage has been observed following the application of maleic hydrazide products. 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.

WEST OF THE ROCKY MOUNTAINS

Reduced sizing, yield, tuber cracking and /or "elephant hide" disorders have been observed in some instances following application of maleic hydrazide products on potatoes grown under irrigation in the Northwest. At this time, the association, if any, between these disorders and maleic hydrazide use is not clear or confirmed. Until such time as the association or the lack of association can be determined, ROYAL MH-30 XTRA IS NOT RECOMMENDED FOR USE ON IRRIGATED POTATOES, AND USE ON ANY POTATOES, IRRIGATED OR NOT, IS AT THE USER'S RISK. Uniroyal Chemical will not be responsible for any loss incurred by users should any of these disorders occur after the application of ROYAL MH-30 XTRA.

ONIONS BENEFITS

Sprout Control in Storage

ROYAL MH-30 XTRA will control sprouting of onions in storage.

TIMING

ROYAL MH-30 XTRA should be applied when the bulbs are fully mature, have at least 5 to 8 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

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

RATE OF APPLICATION

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

Ground Application

Use 7 pints of ROYAL MH-30 XTRA in a minimum of 30 gallons of water per acre.

Aerial Application

Use 7 pints of ROYAL MH-30 XTRA in a minimum of 10 gallons of water per acre. Do not fly at heights of less than 8 to 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 to 4 MPH.

SPRAY ADJUVANTS

West of the Rocky Mountains: Use Regulad 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 may aid in translocation of the ROYAL MH-30 XTRA.

East of the Rocky Mountains: Use of surfactants is normally not recommended.

TEMPERATURE

ROYAL MH-30 XTRA 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 XTRA is water soluble and under high temperature and low humidity conditions will crystallize on the leaf surface and not be absorbed into the plant.

VARIETIES

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

POTATOES BENEFITS

Sprout Control in Storage

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

Reduction of Volunteer Potatoes

ROYAL MH-30 XTRA will reduce the number of volunteer potatoes the following spring because of its ability to control sprouting. If 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 XTRA may improve the grade of potatoes, especially Russet Burbank variety, if the application is made prior to any secondary tuber formation.

Reduction of Undersize Potatoes

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

Reduces Shrinkage

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

TIMING

Timing is important. To allow translocation of chemical down to the tubers ROYAL MH-30 XTRA 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 to 3 weeks past full

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 to application timing, provided the above conditions have been met:

For Russet Burbank

The smallest tubers that are required to reach a minimum size of 4 to 6 oz. must be 1½ to 2 inches in diameter (and elongating) at time of spraying.

For Norgold or Norchip

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

For Other Varieties

The smallest tubers that are required to reach maximum size, should be 1½ inches in diameter at time of spraying.

RATE OF APPLICATION

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

Ground Application

Use 1 to 1½ gallons of ROYAL MH-30 XTRA in a minimum of 30 gallons of water per acre. Use the 1½ gallon rate when vines are robust and in areas where the vines stay green and vigorous up through the time of crop desiccation. The higher rates should also be used on varieties that sprout readily in storage (such as Norgold) or when potato tubers will be stored under extended high temperatures.

Aerial Application

Use 1 to 1½ gallons of ROYAL MH-30 XTRA per acre. Use the 1½ gallon rate when the vines are robust and in areas where the vines stay green and vigorous up through the time of crop desiccation. The higher rate should also be used on varieties that sprout readily in storage (such as Norgold) or when potato tubers will be stored under extended high temperatures.

West of the Rocky Mountains: Use in a minimum of 10 gallons of water per acre.

East of the Rocky Mountains: Use in a sufficient quantity of water to gain complete uniform coverage.

Do not fly at heights of less than 8 to 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 to 4 MPH.

SPRAY ADJUVANTS

West of the Rocky Mountains: Use Regulaid® 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 may aid in translocation of the ROYAL MH-30 XTRA.

East of the Rocky Mountains: Use of surfactants is normally not recommended.

®Regulaid is a registered trademark of Kalo, Inc.

®X-77 is a registered trademark of Chevron Chemical Company, Inc.

TEMPERATURE

ROYAL MH-30 XTRA 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 XTRA is water soluble and under high temperature and low humidity conditions will crystallize on the leaf surface and not be absorbed into the plant.

NOTE: ALWAYS SHAKE OR STIR WELL BEFORE USE.

STORAGE: Store in original container only. After partial use, replace lid and close tightly. Store in a secure place that is cool and dry. The active ingredient in ROYAL MH-30 XTRA 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.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes can not be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Plastic Containers: Triple rinse (or equivalent). Pressure rinse is preferred. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by State and local authorities, by burning. If burned stay out of smoke.

EQUIPMENT CLEANING: ROYAL MH-30 XTRA is not corrosive to spray equipment. Following applications, all spray equipment should be thoroughly rinsed with water. Do not contaminate water when disposing of equipment washwaters.

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 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.

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