



Reg # 275-32

PM - 22

1312

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 17 1994

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Susan L. Kendzior
ABBOTT LABORATORIES
CHEMICAL AND AGRICULTURAL PRODUCTS DIV
1401 SHERIDAN ROAD
NORTH CHICAGO, IL 60064

Subject: Label Amendment Submission of 08/12/93 in Response to PR Notice 93-7
EPA Reg. No. 275-32
PROMALIN PLANT GROWTH REGULATOR SOLUTION

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

WHAT YOU NEED TO DO NEXT:

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
- AND
- WITHIN one year from date of this acceptance.



Recycled Recyclable
Printed with Soy Canada Ink. Paper that
contains at least 50% recycled fiber.

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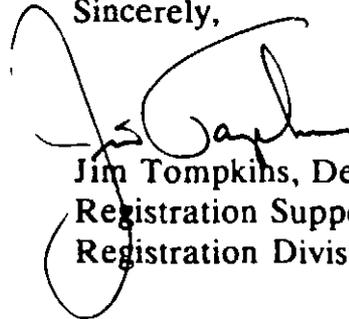
Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs (7505C)
U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Sincerely,



Jim Tompkins, Deputy Chief
Registration Support Branch
Registration Division (7505W)

Attachment

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division

Susan L. Kendzior
ABBOTT LABORATORIES
CHEMICAL AND AGRICULTURAL PRODUCTS DIV
1401 SHERIDAN RD
NORTH CHICAGO IL 60064

Comment for: EPA Reg Nr.275-32
PROMALIN PLANT GRCWTH REGULATOR SOLUTION

The following specific comments pertain to your WPS labeling submission concerning the product cited above:

Delete the following statement from your proposed label; it is not required for formulations of this type: "Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category ___ on an EPA chemical resistance category selection chart."

You have incorrect wording in the second-to-last sentence in the first paragraph in the Agricultural Use Requirements box on your proposed label. The sentence must be as follows: "It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval."

The bodywear requirement for early entry in the Agricultural Use Requirements box on your proposed labeling is missing or incorrect. Remove the incorrect requirement (if any) and add "Coveralls". The exact location is shown in Sections F and G on Part 2 of the Product Worksheet in Supplement Three-A to PR Notice 93-7.

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PROMALIN®
PLANT GROWTH REGULATOR
SOLUTION

Active Ingredients:

N-(phenylmethyl)-1H-purine 6-amine.....1.8% w/w

Gibberellins A₄A₇.....1.8% w/w

Inert ingredients.....96.4% w/w

Total:.....100%

Store below 75°F (23°C)

KEEP OUT OF REACH OF CHILDREN

WARNING

AVISO

al
Si usted no entiende la etiqueta, busque a *al* alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail)

Chemical and Agricultural Products Division
Abbott Laboratories
North Chicago, Illinois 60064

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EPA Reg. No. 275-32
EPA Est. No. 44616-MO-1
Net contents:

Promalin.epa
Page 1 of 9
08-02-93

ACCEPTED
with COMMENTS
In EPA Letter Dated
MAY 17 1994
Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
275-32

STATEMENT OF PRACTICAL TREATMENT

If in Eyes: Immediately flush with plenty of water. Call a physician.

If Swallowed: Drink promptly a large quantity of milk, egg whites, gelatin solution or if these are not available, drink large quantities of water. Avoid alcohol.

If on Skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

**PRECAUTIONARY STATEMENTS
HAZARD TO HUMANS (& DOMESTIC ANIMALS)**

WARNING

Causes eye irritation. Do not get in eyes. Harmful if swallowed. ~~In case of contact, immediately flush eyes with plenty of water. Call a physician.~~

Personal Protective Equipment:

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Shoes plus socks
- Protective eyewear.

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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.

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USER SAFETY RECOMMENDATIONS

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

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. 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 any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. 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). 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:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

STORAGE AND DISPOSAL

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

STORAGE: Store below 75°F (23°C). Keep containers tightly closed when not in use.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Do not reuse empty containers. Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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SPRAYING GUIDE

Do not apply this product through any type of irrigation system.

Promalin® is a plant growth regulator for use on apples. When applied at specific spraying timing and concentration, Promalin will provide the following effects.

1. Promalin® improves the shape of Delicious apples through elongation of fruit and development of more prominent calyx lobes. These desirable effects will be most evident in years when natural typiness is limited.
2. On Delicious and other varieties, Promalin® may increase weight of individual fruit and yield per tree. Some thinning may occur from the use of Promalin®.
3. On most apple varieties, Promalin® will increase lateral bud break, shoot growth, and improve branch angles on non-bearing apple trees, including nursery stock. This effect will provide a better tree framework, for early cropping.

A. RATE AND TIMING OF APPLICATION - FRUIT DEVELOPMENT

1. **Single Application for Improved Type.**
A single application of Promalin® should be made from early king bloom (king blossoms opening and side blossoms in the balloon stage) to the early stages of petal fall of the king blossoms.
Apply 1 to 2 pints of Promalin® per acre in 50 to 200 gallons of spray mixture as a fine mist spray.
2. **Split Applications for Improved Type and Size.**
A split application may be utilized to improve typing and sizing responses. The first application should be made from early king bloom to the early stages of petal fall of the king bloom. The second application should be made 7 to 21 days later. Apply 0.5 to 1 pint of Promalin® per acre in 50 to 200 gallons of spray mixture in each application. Do not, however, exceed the maximum recommended rate of a total of 2 pints per acre for the combined sprays.
3. **Split Applications to Improve "Typiness" in Locations where the Bloom Period is Prolonged or Occurs over a Period of Several Days.**
Make two Promalin® applications three or more days apart. The first spray should be timed during the first flush of bloom. A second application should be made when the remainder of the tree canopy comes into bloom.

The time between Promalin® applications may vary from orchard to orchard within a given growing area because of the influence of the local microclimate. In most instances a period from 3 to 7 days between sprays is adequate. The time interval between sprays should be lengthened should cool weather further prolong bloom. For the most efficient use of Promalin®, bloom progression within individual orchards should be assessed at least every 48 hours.

Apply Promalin® twice as two concentrate sprays each containing 0.5-1 pint of Promalin® in 100 gpa. The spray machine should be calibrated to deliver 100 gpa and nozzled to direct the spray mist to those portions of the tree canopy currently in bloom. An appropriate wetting agent should be included so as to insure even thorough coverage of open blossoms.

MIXING INSTRUCTIONS

Add the required amount of Promalin® to a spray tank about half-filled with water. Agitate while bringing the total volume of water to the required level. New solutions should be mixed only in a clean, empty spray tank, and used within 24 hours. A non-ionic wetting agent, e.g. Tween®-20, Triton®X-100, or Glyodin may improve spray coverage and enhance absorption.

APPLICATION CONSIDERATIONS

1. Since Promalin® is a plant growth regulator that must be absorbed by the plant to be effective, best performance can be expected with good absorption conditions and healthy, vigorous trees. Do not spray the recommended tank mixes on any low vigor trees or trees under stress as from drought, low fertility, winter injury, etc.
2. Apply Promalin® spray mixture as a uniform fine mist spray.
3. Use a properly calibrated and adjusted sprayer that insures uniform and complete coverage of all foliage and blossoms. Spray volume should be adjusted to tree size and density.
4. Approximately 85% of the spray volume should be directed into the upper two-thirds of the trees.
5. To minimize excessive spray drift, apply when air is calm.

- 6. High relative humidity and slow drying conditions favor maximum absorption of Promalin®. Application in morning or evening may be preferable. Conditions favoring rapid drying of the spray deposit should be avoided.
- 7. Rainfall within six hours after spraying may reduce activity of Promalin®.
- 8. Do not apply Promalin® when air temperatures are lower than 40°F or greater than 90°F.
- 9. Do not apply Promalin® in more than 200 gallons of spray per acre.

**B. RATE AND TIMING OF APPLICATION -
LATERAL BRANCHING AND TREE DEVELOPMENT**

A single foliar application of Promalin® or a Promalin®-latex paint spot application may be applied to apples, non-bearing pears, and non-bearing sweet cherry trees, including nursery stock, to increase lateral bud break, shoot growth, improve branch angles, and provide a better tree framework for early cropping.

FOLIAR APPLICATIONS

Foliar applications have proven to be efficacious in increasing bud break and branch angles on apples, non-bearing pears, and sweet cherries being grown in nurseries.

DIRECTIONS FOR USE

CROP	RATE	TIMING
Apples (Nursery and Orchard)	125-500 PPM (.25-1 pt. Promalin®/5 gal. of spray solution)	For orchard trees apply at 1-3 inches of new terminal growth.
Non-bearing Pears (Nursery and Orchard)	250-1000 PPM (.5-2 pt. Promalin®/5 gal. of spray solution)	Nursery stock should be treated after trees have reached a terminal height at which lateral branching is desired.
Non-bearing Sweet Cherries (Nursery only)	See Pears	

A buffered wetting agent, e.g., Buffer X[®] or non-ionic wetting agent, e.g., Tween 20, Triton X-100, Glyodin, etc. should be added to the tank at a rate of .2-.3% (1-2 oz./5 gal.) prior to the addition of Promalin[®]. The final spray solution should not exceed a pH of 8.

Uniformly apply Promalin[®] with a pressurized hand sprayer, hand gun attachment to an airblast sprayer, or an airblast sprayer to thoroughly wet the bark and foliage surfaces. Total spray volume needed to achieve thorough wetting will vary with the equipment used and the size of the trees to be treated. Generally, 50-100 gallons of spray mixture will treat an acre of nursery trees planted on a 4 foot by 4 inch spacing (2200 trees). Approximately 5-10 gallons of spray mixture applied with a pressurized hand sprayer will treat 200-300 non-bearing orchard trees 1-4 years old.

LATEX APPLICATIONS

Promalin[®] applied in latex paint has proven effective in increasing bud break and branch angles when applied to one year old wood on apples and orchard grown non-bearing sweet cherries.

CROP	RATE	TIMING
Apples (Nursery and Orchard)	5000-7500 PPM (.2-.33 pt Promalin [®] per pint of latex paint)	Apply in the spring when terminal buds begin to swell but before shoots emerge.
Sweet Cherries (Orchard Only)		

NOTE: Do not apply after buds break. Applications after buds have broken may cause some injury to tender shoot tips and fail to promote shoot growth from that point.

A buffered or non-ionic wetting agent should be added to the Promalin[®] and latex paint mixture at the rate of .5-1% (.1-.15 oz. per pint of paint) prior to the addition of Promalin[®]. The addition of a wetting agent will improve the dispersion of Promalin[®] in the latex paint and will also improve wetting and absorption through the waxy cuticular layer of the bark surface.

Uniformly apply the Promalin[®]-latex paint mixture with a brush or sponge to thoroughly cover the bark surface. NOTE: Apply only to one year old wood.

TANK MIX COMPATIBILITY

1. Promalin® may be applied in combination with plant nutrients.
2. A buffer should be added to alkaline spray water to reduce the pH below 8.
3. Fungicides

Benlate®, Ferbam®, Polyram®, Thiram, Glyodin, Dithane® M-45, Orthocide®, wettable sulfur may be tank mixed with Promalin® at the recommended timing associated with bloom applications as described under "Rate and Timing of Application" for Promalin®. When using fungicides, refer to respective labels for directions and precautionary statements.

NOTICE TO USER

Seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

For information, call: 1-800-323-9597

Tween®-20 is a registered trademark of ICI Americas, Inc.

Dithane®M-45 and Triton® X-100 are registered trademarks of Rohm and Haas Company.

Benlate® is a registered trademark of E.I. duPont de Nemours & Co., Inc.

Polyram® is a registered trademark of BASF AG.

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Buffer-X® is a registered trademark of Kalo, Inc.

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