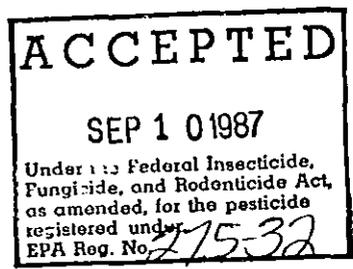


Draft Labeling
EPA Reg. No. 275-32
August 10, 1987
Page 1 of 1



PROMALIN

PLANT GROWTH REGULATOR

Active Ingredients:

N-(phenylmethyl)-1H-purine-6-amine	1.8%	(w/w)
Gibberellins A ₄ A ₇	1.8%	(w/w)
Inert Ingredients	96.4%	

KEEP OUT OF REACH OF CHILDREN

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.

Store Below 75°F(23°C)

See supplemental labeling for storage/disposal statements and directions for use.

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

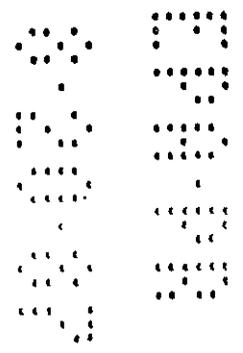
EPA Registration No. 275-32
EPA Est. No. 35347-CA-1

Net Contents: One (1) Pint (16 fluid ounces, 473 ml)

Lot No.

Not for sale
or use after

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



PROMALIN®

PLANT GROWTH REGULATOR

PROMALIN® is a plant growth regulator for use on apples* When applied at specific spray 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 red apple varieties, e.g. Delicious, Johnathan, Jonamac, MacIntosh, Paulared, Spartan, Empire, PROMALIN may be combined (in all States except California) with Alar®-85 to enhance expected desirable effects from Alar-85, including improved color, earlier coloring, increased fruit pressure and prevention of preharvest fruit drop.
- **4. 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.

Directions for Use

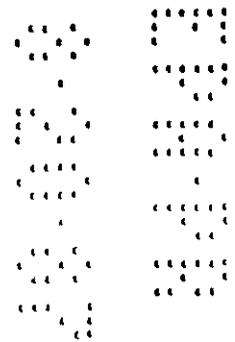
It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Keep out of lakes, ponds or streams. Do not contaminate water by cleaning of equipment or disposal of wastes.

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 on site or at an approved waste disposal facility.

*Only Red Delicious apples in California
**All States except California.



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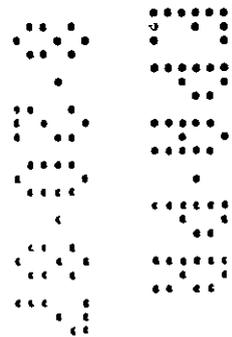
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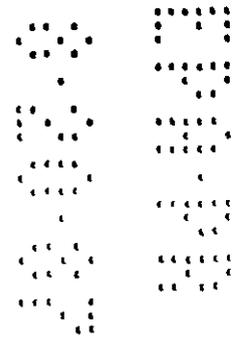
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STORAGE AND DISPOSAL

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

*Only Red Delicious apples in California
**All States except California



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.

A. Rate and Timing of Applications - Fruit Development

1. Single Application for Improved Type

Western U.S.: 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.

*PROMALIN-ELGETOL® (DNOC, 19% Al) (for type and thinning on spur Delicious strains): Apply a tank mix of PROMALIN and Elgetol at the recommended Elgetol timing, i.e. 80% full king bloom on the north side of the tree. Apply 2 pints of PROMALIN plus 4 pints of Elgetol in 200 gallons of water per acre. Observe all precautionary statements on Elgetol label.

Eastern U.S.: A single application of PROMALIN should be made from early king bloom to the early stages of petal fall of side blossoms.

For both eastern and western U.S. apply 1 to 2 pints of PROMALIN per acre in 50 to 200 gallons of spray mixture as a fine mist spray.

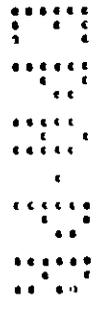
2. Split Applications for improved Type and Size.

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.



*All states except California

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.

- *4. PROMALIN and ALAR[®]-85 (Plant Growth Regulants) for Commercial Applications to Apples.
- PROMALIN and Alar-85 may be combined as a tank mix application during mid-summer (60-80 days preharvest) on apples. This tank mix may enhance the expected desirable effect from Alar-85 application, including improved color, earlier coloring, increased fruit pressure, and prevention of preharvest fruit drop. Use 1 to 2 pints of PROMALIN and 2 to 4 pounds of Alar-85 per acre in 100-400 gallons of spray solution. Alar should be added to the tank mix prior to the addition of PROMALIN. The PROMALIN and Alar-85 tank mix should be applied as a foliar spray in a manner that insures uniform and complete coverage. Do not exceed the per acre recommended rate. See current Alar-85 label for precautionary statements and other specific recommendations.

Mixing Instructions

Add the required amount of PROMALIN to 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.

*All States except California

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

<u>Crop</u>	<u>Rate</u>	<u>Timing</u>
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 pts. Promalin/ 5 gal. of spray Solution	Nursery stock should..... be treated after. : : : trees have reached a..... terminal height at : : which lateral branch..... ing is desired...
Non-bearing Sweet cherries (Nursery only)	See Pears	

NEW MATERIAL

BEST AVAILABLE COPY

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.

<u>Crop</u>	<u>Rate</u>	<u>Timing</u>
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. 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
Sweet cherry (Orchard only)		

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 ozs. 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.

NEW MATERIAL- CONTINUED

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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.

*All States except California

®Elgetol, Alar, Tween, Benomyl, Ferbam, Polyram, Thiram,

*Dithane M-45, *Triton, Glyodin and Orthocide are trademarks of companies other than Abbott Laboratories.

