

Plant Growth Regulator

Prohmalin

SPRAYING GUIDE

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.

PROMALIN is a plant growth regulator for use on apples. When applied at proper 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 tyness 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 frame work for early cropping.

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.

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 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.

A. RATE AND TIMING OF APPLICATION — 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* (0.05% to 0.1%) for type and thinning on spur Delicious strains. Apply a tank mix of PROMALIN and Elgetol at the recommended Elgetol timing to 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 timing 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 'Tyness' 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.

*All States except California

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 on individual orchards should be assessed at least every 48 hours.

Apply PROMALIN twice as two consecutive sprays each containing 0.5 to 1 pint of PROMALIN in 100 gpa. The spray machine should be calibrated to deliver 100 gpa and nozzles 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 to a 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 Glydol) 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.

NOTIFICATION
LABEL NOT REVIEWED
PER FR NOTICE

DATE OCT 23 1990

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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 (5-20 pts. 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.

*All States except California

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 (2-3.3 pt. Promalin per pt. 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% (1-1.5 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.

*All States except California

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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.

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Orthocide* is a registered trademark of Chevron Chemical Co.

Buffer X* is a registered trademark of Kalo, Inc.

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Chemical and Agricultural
Products Division
North Chicago, IL 60064 U.S.A.

Promalin

Active Ingredients:
N-(phenylmethyl)-
2-imidazopyridine 8-amine 18% w/w
Gibberellins A₁ A₂ 18% w/w
Inert Ingredients 64%

Store below 75°F (23°C)

**KEEP OUT OF REACH
OF CHILDREN
WARNING**

See attached booklet for
storage/disposal statements,
additional precautionary
statements and directions for use.

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Products Division
North Chicago, IL 60064 U.S.A.

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