

Promalin[®]

PLANT GROWTH REGULATOR

SOLUTION

For use on apples, non-bearing pears, and non-bearing sweet cherries.

ACTIVE INGREDIENTS:

<i>N</i> -(phenylmethyl)-1 <i>H</i> -purine 6-amine	1.8% w/w
Gibberellins A ₄ A ₇	1.8% w/w
OTHER INGREDIENTS	96.4% w/w
TOTAL.....	100.0% w/w

EPA Reg. No. 73049-41

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KEEP OUT OF REACH OF CHILDREN

CAUTION

1.0

FIRST AID	
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For medical emergencies, you may also call toll-free 1-800-892-0099 for treatment information.	

2.0 PRECAUTIONARY STATEMENTS

2.1 Hazard To Humans and Domestic Animals

CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

2.2 Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

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

2.3 User Safety Requirements

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.

2.4 User Safety Recommendations

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

2.5 Environmental Hazards

For terrestrial users: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

3.0 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.

4.0 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) 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 4 hours unless wearing appropriate PPE.

CONTINUED

4.0 AGRICULTURAL USE REQUIREMENTS (CONT'D)

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

5.0 PRODUCT INFORMATION

Promalin® is a plant growth regulator for use on apples and pears, non-bearing pears and non-bearing sweet cherries. When applied according to label directions to healthy, well-managed trees and under favorable weather conditions (See General Instructions), *Promalin* provides one or more of the following benefits in some varieties:

1. Improve the shape of apples through fruit elongation and development of more prominent calyx lobes ("typiness"). These desirable effects will be more evident in years when natural typiness is limited.
2. Increase fruit size and weight on most apple varieties. Some fruit thinning has been known to occur from the use of *Promalin*.
3. Increase lateral bud break and shoot growth (branching), and improve branch angle on nursery stock young trees of most apple varieties. This effect provides a better tree framework for early cropping.
4. Increase lateral bud break and shoot growth, and improve branch angle on non-bearing trees of most European pear and sweet cherry varieties, including nursery stock. This effect provides a better tree framework for early cropping.
5. To increase fruit set in apples after a frost during flowering.

6.0 GENERAL INSTRUCTIONS

- Do not apply this product through any type of irrigation system.
- When a range of rates is indicated, use the concentration and spray volume directed locally by the Valent BioSciences LLC agricultural specialist, (1-800-323-9597).
- For optimum effectiveness, thorough spray coverage must be achieved. All parts of the plant must receive the spray or desired results will not occur. On bearing trees, direct approximately 85% of the spray volume into the upper two-thirds of the trees.
- *Promalin* applications made under slow drying conditions (cool to warm temperatures, medium to high relative humidity, and no wind) will increase absorption by the plant, thus optimizing effectiveness. Night-time applications are encouraged when day-time conditions are not conducive to slow drying conditions.
- Do not apply *Promalin* when air temperatures are below freezing or greater than 90°F.
- For optimum results, have the water pH near neutral (pH 7) and always below 8.5.
- Rainfall or overhead irrigation within 6 hours after spraying will often reduce the activity of *Promalin*.

- **Compatibility:** The *Promalin* Application Instructions refer to use of the product alone. Data concerning the compatibility of *Promalin* with other agricultural compounds is not available. Valent BioSciences LLC does not assume responsibility for unexpected results due to the tank mixing of *Promalin* with other products.

- **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. Mix new solutions only in a clean, empty spray tank, and use within 24 hours. Discard any unused spray material following local, state, or federal law.

7.0 APPLICATION INSTRUCTIONS FOR FRUIT DEVELOPMENT

7.1 Rate and Timing

1. For Improved Typiness and Size:

Crop	Objective/ Benefit	Product/ Acre	Application Method and Timing
Apple Single applica- tion	To improve typiness and size.	16-32 ounces (1-2 pints)	Make a single application of 1-2 pints of <i>Promalin</i> per acre from early king bloom to the early stages of petal fall of the side blossoms.
Apple Split applica- tions	To improve typiness and size during prolonged bloom periods.	18-16 ounces (1-2 pints)	Make the first application of 0.5-1 pint of <i>Promalin</i> per acre at the beginning of the bloom period, from early king bloom to the early stages of petal fall of the side bloom. Make the second application of 0.5 - 1 pint of <i>Promalin</i> per acre 3 - 21 days later, or when the remainder of the canopy comes into bloom.

NOTE:

- When the bloom period is prolonged, two applications give the best results.
- Do not exceed the maximum indicated rate of 2 pints per acre for the combined sprays.

2. To Increase Fruit Set After Frost (Not for use in California)

Crop	Objective/ Benefit	Product/ Acre	Application Method and Timing
Apple	To increase fruit set after frost	16-32 ounces (1-2 pints)	Apply within 24 hours after a frost event when the majority of the crop is between early bloom and full bloom. Apply in 75-150 gallons of water per acre.

NOTE:

- Do not apply to frozen foliage, blossoms or developing fruit. Allow trees to completely thaw prior to application.
- Apply *Promalin* in sufficient amount of water to ensure thorough, but not excessive coverage. Adjust water volume based on tree size and spacing.
- Do not use a surfactant.
- Do not apply more than twice for this use.

Maximum application:

Product use per season for all uses described above should not exceed 6 pints.

3. To Increase Fruit Set in Pears (Not for use in California)

Crop	Objective/ Benefit	Product/ Acre	Application Method and Timing
Pears	To increase fruit set	8 - 16 ounces (0.5 - 1 pints)	Without frost begin the applications at beginning of flowering, second application between full bloom and petal fall. In the case of frost damage between pink bud and petal fall apply within 24 hours.

NOTE:

- Do not apply to frozen foliage, blossoms or developing fruit. Allow trees to completely thaw prior to application.
- Apply Promalin in sufficient amount of water to ensure thorough, but not excessive coverage. Adjust water volume based on tree size and spacing.
- Do not use a surfactant.
- Do not apply more than twice for this use.

Table 2 - Latex Applications

Crop	Rate	Timing
Apples (Nursery and Orchard)	5,000 - 7,500 ppm ¹ [0.2-0.33 pint (3.2-5.3 fluid ounces) Promalin per pint of latex paint]	Apply in the spring when terminal buds begin to swell but before shoots emerge.
Non-bearing Sweet Cherries (Orchard only)		

¹parts per million

NOTE: Do not apply the *Promalin*-latex paint mixture after bud break. Applications after buds have broken have been known to cause some injury to tender shoot tips and fail to promote shoot growth from that point.

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

NOTE: Any type of application of *Promalin* to non-bearing pears and non-bearing sweet cherries must not be made later than one year prior to first anticipated fruit harvest.

7.2 Spray Volume

Apply *Promalin* in a sufficient amount of water to ensure thorough, but not excessive, coverage. Adjust water volumes based on tree size and spacing. A spray volume of 75-150 gallons/acre is adequate for most orchards. Excessive spray application volumes that result in spray runoff have been known to reduce product performance.

8.0 APPLICATION INSTRUCTIONS FOR LATERAL BRANCHING AND TREE DEVELOPMENT

8.1 Rate and Timing

1. Application for Branching:

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

Table 1 - Foliar Applications

Crop	Rate	Timing
Apples (Nursery and Orchard)	125-500 ppm ¹ (0.25-1 pint Promalin per 5 gallons of spray solution) ²	For orchard trees (apples and non-bearing pears), apply at 1-3 inches of new terminal growth.
Non-bearing Pears (Nursery and Orchard)	250-1,000 ppm (0.5-2 pints Promalin per 5 gallons of spray solution)	For nursery stock (apples, non-bearing pears and non-bearing sweet cherries) treat after trees have reached a terminal height at which lateral branching is desired.
Non-bearing Sweet Cherries (Nursery only)	250-1,000 ppm (0.5-2 pints Promalin per 5 gallons of spray solution)	

¹parts per million

²Do not exceed 2 pints per acre.

9.0 STORAGE AND DISPOSAL

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

Pesticide Storage: Store below 75°F (24°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: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact Ag Container Recycling Council at 202-861-3144 or www.acrecycle.org. If recycling is not available, 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.

10.0 WARRANTY AND DISCLAIMER STATEMENT

To the fullest extent permitted by law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning 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.

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