

2014-2274

2015-07-06

COMMERCIAL

PROMALIN*SL
PLANT GROWTH REGULATOR

Solution

GUARANTEE:

6-Benzyladenine 1.8% (W/W)
Gibberellins A₄A₇ 1.8% (W/W)

Store below 23°C

REGISTRATION NO. 16636 PEST CONTROL PRODUCTS ACT
KEEP OUT OF REACH OF CHILDREN

CAUTION – EYE IRRITANT
READ LABEL AND ATTACHED BROCHURE BEFORE USING

Registrant:
Valent BioSciences Corporation
870 Technology Way
Libertyville, IL 60048
USA
1-800-323-9597

Canadian Agent:
Valent Canada, Inc.
3-728 Victoria Road South
Guelph, Ontario, N1L 1C6
Canada

Net Contents: 500 mL

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

CAUTION - Causes eye irritation. Do not get in eyes. Harmful if swallowed.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue labels in the U.S., contact Valent BioSciences.

- Wear long pants, a long-sleeved shirt, shoes plus socks, chemical-resistant gloves and goggles or a face shield during mixing/loading, application, clean-up, and repair activities.
- Do not re-enter or allow re-entry into treated areas until 12 hours after application.

ENVIRONMENTAL HAZARDS

- Do not apply directly to aquatic habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, or wetlands) and estuarine/marine habitats. Do not contaminate the above aquatic habitats when cleaning and rinsing spray equipment or containers.

FIRST AID

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

If in eyes: 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 centre or doctor for treatment advice.

If swallowed:

Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

Take container, label, or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION:

Treat Symptomatically

DISPOSAL

Do not reuse this container for any purpose. This is a recyclable container and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

triple- or pressure-rinse the empty container, add the rinsings to the spray mixture in the tank and make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill and for clean-up of spills.

NOTICE TO USER:

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carton

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Net Contents: 10 X 500 mL

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DIRECTIONS FOR USE

Promalin SL Plant Growth Regulator is a plant growth regulator for use on apples, 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 SL Plant Growth Regulator provides one or more of the following benefits in some varieties:

FOR FRUIT DEVELOPMENT

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. Under certain environmental conditions, some fruit thinning may occur.
3. Reduce russet on apple fruit.
4. Increases fruit set in apple after a frost.
5. Increase fruit set in pear varieties where natural fruit set is generally low

FOR LATERAL BRANCHING AND TREE DEVELOPMENT

1. Increase lateral bud break and shoot growth (branching), and improve branch angle on nursery stock and young trees of most apple varieties. This effect provides a better tree framework for early cropping.
2. 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.

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 Canada, Inc. agricultural specialist (519-767-9262).
- 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.
- Airblast application: Do not direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. Do not apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.
- Do not apply by air.
- Observe a minimum interval to harvest of 28 days after treatment.
- Promalin SL Plant Growth Regulator 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 SL Plant Growth Regulator when air temperatures are below freezing or greater than 32°C.
- For optimum results, have the water pH near neutral (pH 7) and always below pH 8.5.
- Rainfall or overhead irrigation within 6 hours after spraying will often reduce the activity of Promalin SL Plant Growth Regulator.
- **Compatibility:** The Promalin SL Plant Growth Regulator Application Instructions refer to use of the product alone. Data concerning the compatibility of SL Plant Growth Regulator with other agricultural compounds is not available. Valent BioSciences Corporation does not assume responsibility for unexpected results due to the tank mixing of Promalin SL Plant Growth Regulator with other products.
- **Mixing Instructions:** Add the required amount of Promalin SL Plant Growth Regulator 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, provincial, or federal law.

APPLICATION INSTRUCTIONS FOR FRUIT DEVELOPMENT

Rate and Timing

1. Single Application for Improved Apple Typiness and Size:

Make a single application of 1.2 to 2.3 L of Promalin SL Plant Growth Regulator per hectare from early king bloom to the early stages of petal fall of the side blossoms.

2. Split Applications for Improved Apple Typiness and Size:

When the bloom period is prolonged, two applications give the best results. Make the first application of 0.6 to 1.2 L of Promalin SL Plant Growth Regulator per hectare 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 0.6 to 1.2 L of Promalin SL Plant Growth Regulator per hectare 3 to 21 days later, or when the remainder of the canopy comes into bloom. Do not exceed the maximum indicated rate of 2.3 L per hectare for the combined sprays.

3. Reduce Russet on Apple Fruit:

Make maximum of four applications of 250 to 500 mL of Promalin SL Plant Growth Regulator per hectare at 7-12 day intervals beginning between full bloom and petal fall. Earlier applications, shorter intervals and higher rates are recommended when russet conditions are severe (long cold and wet periods during bloom).

4. Increase Fruit Set in Apple after Frost:

Make a single application of 1.2 to 2.3 L Promalin SL Plant Growth Regulator per hectare. Apply within 24 hours after a frost event when the majority of the crop is between early bloom and full bloom. Do not apply to frozen foliage, blossoms or developing fruit. Allow trees to completely thaw prior to application. Do not use a surfactant.

5. Increase Fruit Set in Pear:

Make a maximum of two applications of 250 mL of Promalin SL Plant Growth Regulator per hectare, the first at 10-30% open flowers on the old wood and the second between full bloom and petal fall.

Spray Volume

Apply Promalin SL Plant Growth Regulator 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 500 to 1500 L per hectare (typically 100 L/ha) is adequate for most orchards. Excessive spray application volumes that result in spray runoff have been known to reduce product performance.

APPLICATION INSTRUCTIONS FOR LATERAL BRANCHING AND TREE DEVELOPMENT

Rate and Timing

1. Application for Branching:

A single foliar application of Promalin SL Plant Growth Regulator or a Promalin SL Plant Growth Regulator-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 (62.5 - 250 mL Promalin SL Plant Growth Regulator per 10 L 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 (125 – 500 mL Promalin SL Plant Growth Regulator per 10 L 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 (125 – 500 mL Promalin SL Plant Growth Regulator per 10 L of spray solution)	

¹ parts per million

² Do not exceed 2000 mL per hectare.

Table 2 -- Latex Applications

Crop	Rate	Timing
Apples (Nursery and Orchard)	100 – 165.6 mL Promalin SL Plant Growth Regulator per 500 mL of latex paint	Apply in the spring when terminal buds begin to swell but before shoots emerge.
Non-bearing Sweet Cherries (Orchard Only)		

NOTE: Do not apply the Promalin SL Plant Growth Regulator-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 SL Plant Growth Regulator-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 SL Plant Growth Regulator to non-bearing pears and non-bearing sweet cherries must not be made later than one year prior to first anticipated fruit harvest.

INSTRUCTIONS FOR USE ON LILIES (FIELD AND GREENHOUSE)

Promalin SL Plant Growth Regulator may be applied to lilies to decrease yellowing and necrosis of lower leaves and delay flower senescence. Gradual leaf yellowing usually begins near or before visible bud stage. Postharvest leaf yellowing may be dramatic with rapid leaf yellowing occurring on finished plants prior to their sale. When used preventatively, Promalin SL Plant Growth Regulator can inhibit both types of leaf yellowing on Easter and LA Hybrid lilies. Additionally, an application of Promalin SL Plant Growth Regulator to flower buds has shown to delay flower senescence, a secondary effect of applying gibberellins to lilies.

Apply with standard spray equipment. Avoid high spray pressure, which can cause "misting" of spray particles. These very small spray particles may deposit on immature foliage and contribute to unwanted stem elongation. For optimum effectiveness, thorough spray coverage must be achieved; only plant parts covered with spray solution will be protected from leaf yellowing. Leaves or parts of leaves not covered with Promalin SL Plant Growth Regulator will not be protected from chlorosis.

An effective dose of Promalin SL Plant Growth Regulator is strongly dependent on application volume. Plant response can vary if a given rate is applied at different spray volumes. Uniformity of spray solution is equally important. **For foliar applications uniformly apply 1.9 L of finished spray solution to 10 m² of bench area.** When making directed applications to lilies, apply enough solution to ensure coverage of the lower leaves, but do not apply more than 15 ml of finished solution per plant, as Promalin SL Plant Growth Regulator applied to soil can contribute to unwanted stem elongation.

Differences in plant response to Promalin SL Plant Growth Regulator due to differences in plant surfaces, leaf orientation, and plant structure are possible. Extreme temperatures can influence plant response to Promalin SL Plant Growth Regulator. It is recommended that Promalin SL Plant Growth Regulator be applied during morning or late afternoon hours, or when plants are not under environmental stress.

Avoid direct contact of spray solution to immature leaves. **Spray solution contacting immature leaves may result in unwanted stem elongation.**

DIRECTIONS FOR USE

Hosts: Lilies-oriental, asiatic, asiflorum hybrids

Lilies-forced Easter

Rate (ai/unit area):50-100 ppm Promalin SL Plant Growth Regulator + 0.1% Tween 20

25-100 ppm Promalin SL Plant Growth Regulator + 0.1% Tween 20

Application:

Apply 50-100 ppm as a foliar spray to the entire plants of oriental, asiatic and asiflorum lilies at bud stage and one day before cold storage to reduce leaf yellowing and delay flower senescence following the cold storage period; one application only.

Apply 25-100 ppm to forced Easter lilies leaves at bud stage to reduce leaf yellowing; one application only. **Direct application to lower leaves. Application to immature leaves may result in unwanted stem elongation.**

Rate Conversion Table

mLs of PROMALIN SL PLANT GROWTH REGULATOR needed for final desired concentration in water

Total spray volume	125 ppm solution	250 ppm solution	500 ppm solution	1000 ppm solution
10 L	62.5	125	250	500