

7969-188

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

FEB 29 2012

Warren L. Smith
BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709-3528

SUBJECT: Supplemental Label Amendment to
Apogee Plant Growth Regulator
EPA Reg. No. 7969-188; Decision # 460875
Your Submission Dated: January 20, 2012

Dear Mr. Smith:

The amended supplemental labeling referred to above, submitted in connection with registration under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable.

If you have any questions regarding this correspondence, contact Rose Kearns of my staff by phone at 703-305-5611 or via email at kearns.rosemary@epa.gov or myself at 703-308-9443 or via email at kish.tony@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "Tony Kish". The signature is written in a cursive style with a large, sweeping "T" and "K".

Tony Kish
Product Manager (22)
Fungicide Branch
Registration Division (7505P)

Enclosure

Supplemental Label



For use on sweet cherries

This supplemental label expires on November 10, 2014 and must not be used or distributed after this date.

Active Ingredient:	
Prohexadione calcium: [calcium 3-oxido-5-oxo-4-propionylcyclohex-3-enecarboxylate].....	27.5%
Other Ingredients:	72.5%
Total:	100.0%

EPA Reg. No. 7969-188

Directions For Use

- It is a violation of federal law to use this product in a manner inconsistent with its labeling.
- The supplemental labeling and the entire **Apogee® plant growth regulator** container label, EPA Reg. No. 7969-188, must be in possession of the user at the time of application.
- Read the label affixed to the container for **Apogee** before applying.
- Use of **Apogee** according to this labeling is subject to the use precautions and limitations imposed by the label affixed to the container for **Apogee**.

Product Information

Apogee is a unique production management tool for sweet cherry orchards that reduces vegetative growth and can reduce or delay the need for tree pruning.

Mode of Action

Apogee acts within sweet cherry trees to inhibit the biosynthesis of gibberellins, which is the natural plant hormone that regulates cell elongation. Inhibition of gibberellins results in reduced shoot growth.

Application Instructions

Apply **Apogee** to actively growing trees with ground equipment at rates and stages listed in the **Crop-specific Information** section.

Timing

For vegetative growth control, make the first **Apogee** application in the spring when 1 to 3 inches of new shoot growth has occurred. **Correct timing of application is critical to success.** An early first application (i.e., 1 to 2 inches of shoot growth) is more effective than a later application (i.e., 4 to 8 inches of

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shoot growth). If additional vegetative growth control is needed, make a sequential application before or immediately after the shoots show signs of regrowth, typically 2 to 4 weeks after first application. Repeat applications as needed.

Number of Applications

The number of applications will vary depending on the timing of the first application, tree vigor, fruit load, pruning, variety, rootstock and/or the management history of the orchard. For cherry orchards in locations with long growing seasons or higher vigor trees or trees with light fruit load, 3 to 5 applications per season can be more effective. The **Apogee** treatment schedule is flexible and can be applied in a number of different schedules depending on the objectives of the individual grower. Consult with an extension specialist or consultant for your specific area.

Aerial Application*

Apply **Apogee** in a minimum of 10 gallons of spray solution per broadcast acre.

*Not registered for use in California.

Additives

Adjuvant

Use a standard tree fruit spray adjuvant, preferably a nonionic surfactant, to improve leave coverage and performance consistency. Follow the manufacturer's rate instructions.

Nitrogen Source (if needed)

If the water source used for spray applications contains high levels of calcium carbonate (hard water), add one pound of ammonium sulfate (AMS) for every pound of **Apogee**. Use high quality spray grade AMS to avoid plugging nozzles.



Mixing Order

1. **Water** - Begin by agitating a thoroughly clean spray tank half full of clean water.
2. **Products in PVA bags** - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
3. **Water-dispersible products** - (dry flowables such as **Apogee**, wettable powders, and suspension concentrates)
4. **Adjuvants**
5. **Water-soluble products**
6. **Emulsifiable concentrates**
7. **Water-soluble additives** - (AMS when applicable)
8. **Remaining quantity water**

Maintain constant agitation during application. For more information, refer to the **General Tank Mixing Information** section.

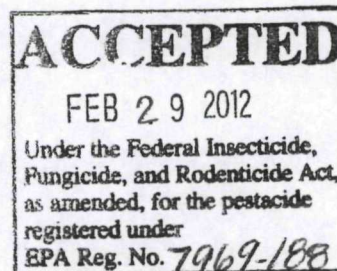
General Tank Mixing Information

Previous experience has shown that **Apogee® plant growth regulator** use by itself does not result in phytotoxicity and that **Apogee** is compatible with many fungicides and insecticides used in cherry orchards. However, all varieties and cultivars have not been tested with possible tank mix combinations. Local conditions can also influence crop tolerance and may not match those under which BASF has conducted testing. Therefore, before using any tank mix, test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of applications. Tank mixes with calcium or boron sprays can result in less growth control from **Apogee**.

Read and follow the applicable **Restrictions and Limitations** and **Directions For Use** on all products involved in tank mixing. The most restrictive labeling applies to tank mixes.

Restrictions and Limitations

- **Maximum seasonal use rate** - **DO NOT** apply more than a total amount of **Apogee** per acre, per season as outlined in the **Application Rates for Vegetative Growth Control in Cherries** table in this label.
- **DO NOT** apply more than a total of 20 ozs (1.25 lbs) of **Apogee** in any 14-day interval.
- **Preharvest Interval (PHI)** - **DO NOT** apply within 20 days before harvest.
- **Restricted Entry Interval (REI)** - **12 hours**
- **Rainfast period** - **Apogee** is rainfast **8 hours** after application.
- **DO NOT** apply to crops that show injury (leaf phytotoxicity) produced by any other prior pesticide applications because this injury can be enhanced or prolonged. Refer to the **General Tank Mixing Information** for additional tank mixing instructions and precautions.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** use **Apogee** on tart cherries.



Crop-specific Information

Dilute spray volumes are based on the amount of solution required to thoroughly wet the tree foliage to the point of runoff. Consult your local BASF representative or consultant for instructions to calculate the dilute coverage based on the tree row volume.

Vegetative Control Use Rates and Tree Vigor

Adjust the Apogee® plant growth regulator rate according to the vegetative vigor of the trees (refer to the below Application Rates for Vegetative Growth Control in Cherries table). Vegetative vigor can be influenced by many factors, including fruit load, pruning, variety, rootstock, and location. A grower's experience is the best guide in predicting tree vigor. Some trees exhibit excessive shoot growth (high vigor) every year due to a combination of variety, rootstock, and location. Trees that normally exhibit typical shoot growth can exhibit excessive growth in some years due to crop loss or severe winter pruning.

Application Rates for Vegetative Growth Control in Cherries

Application Timing	Product Rate per Application (ozs/A)	Restrictions
High Vigor Trees	8 to 20	DO NOT apply more than 20 ozs/A within any 14-day interval DO NOT apply more than 40 ozs/A (2.5 lbs) of Apogee per season
Medium Vigor Trees	6 to 12	DO NOT apply more than 12 ozs/A within any 14-day interval DO NOT apply more than 30 ozs/A (1.875 lbs) of Apogee per season
Low Vigor Trees	DO NOT apply Apogee to low vigor trees	Not applicable

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as crop response to the product, weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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Supersedes: NVA 2009-04-080-0225

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The Chemical Company