

71771-3

10-13-2011

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Washington, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

J. Scott Thenell  
Regulatory Consultant  
Plant Health Care, Inc.  
c/o Thenell & Associates, LLC  
1181 Keaveny Court  
Walnut Creek, CA 94597-2465

RE: Plant Health Care, Inc.  
Product Name: ProAct®  
EPA Reg. No: 71771-3  
Application for Notification Dated: September 9, 2011 to add Alternate Brand  
Name: Messenger Gold to Section A as per PR Notice 98-10.

Dear Mr. Thenell,

The Biopesticides and Pollution Prevention Division is in receipt of your application for Notification under Pesticides Registration Notice (PRN) 98-10 dated above. A preliminary screen of this request has been conducted for its applicability under PRN 98-10 and it has been determined that the action(s) requested falls within the scope of PRN 98-10. Our records have been duly noted, and the label submitted with this application has been stamped as "**Notification Accepted**" and will be placed accordingly in our records.

Questions concerning this action should be directed to Mary Paden (703) 308-0411 or email at [paden.mary@epa.gov](mailto:paden.mary@epa.gov).

Sincerely,

*Sheryl K. Reilly*

Sheryl K. Reilly, Ph.D., Chief  
Microbial Pesticides Branch  
Biopesticides and Pollution Prevention  
Division (7511P)

OCT 13 2011

CONCURRENCES

SYMBOL	▶ 7511(P)						
SURNAME	▶ Paden						
DATE	▶ 13 OCT 11						

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United States  
**Environmental Protection Agency**  
 Washington, DC 20460

Registration  
 Amendment  
 Other

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number 71771-3	2. EPA Product Manager Sheryl Reilly	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) ProAct	PM#	
5. Name and Address of Applicant (Include ZIP Code) Plant Health Care, Inc. c/o Thenell & Associates LLC 1181 Keaveny Court, Walnut Creek, CA 94597-2465  <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

**Section - II Notification Accepted**

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated <u>10/13/2011</u>
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application. Reviewer: <u>m j rodan</u>
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

Notification of alternate brand name for ProAct Section A - Agricultural and Commercial Uses per PR Notice 98-10. This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under Section 12 and 14 of FIFRA.

**Section - III**

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	<input type="checkbox"/> Plastic
				<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
* Certification must be submitted				Other (Specify) <u>foil packet</u>	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 2 oz, 20 oz	5. Location of Label Directions <input type="checkbox"/> booklet		
6. Manner in Which Label is Affixed to Product self-adhesive		<input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled	<input type="checkbox"/> Other _____		

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Scott Thenell (scott@sthenell.com)	Title Regulatory Consultant	Telephone No. (Include Area Code) (925) 933-1075
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature <u>Scott Thenell</u>	3. Title Regulatory Consultant	
4. Typed Name Scott Thenell	5. Date September 09, 2011	

Notification Accepted 1

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ProAct Master Label Index

Date: 10/13/2011 PRECAUTIONARY STATEMENTS

Section A: Agricultural & Commercial Uses  
Section B: Commercial Seed Treatment  
Section C: Pre-Plant Seed Treatment  
Section D: Residential (Home & Garden) Use

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Reviewer: M.G. Paden

CAUTION

Harmful if inhaled. Avoid breathing dust or spray mist. Remove and wash contaminated clothing before reuse.

Section A. Agricultural & Commercial Uses

ProAct®

[Alternate Brand Names: EMPLOY®, PHC-575, EMPLOY® H&T, Messenger® Gold]

A Biochemical Pesticide [OPTIONAL TEXT: for foliar use] that:

[OPTIONAL TAG LINES – For use individually or in combination on labels: Is especially formulated for row crops; Improves stand establishment; Improves standability; Decreases lodging; Increases plant stamina and vigor; Plant Health Regulator; Plant Health Promoter; Suppresses nematode egg production; Enhances crop growth, quality, and yield; Enhances growth; Aids in management of post-harvest diseases; Reduces Tobacco Specific Nitrosamines (TSNAS); Reduces transplant shock; Harp-N-Tek™ inside [LOGO]; Harp-N-Tek is Plant Health Care's trademark for its proprietary harpin protein technology; Extends post-harvest shelf life and salability; Extends post-harvest shelf life and salability of head lettuce; Extends post-harvest shelf life and salability of leaf lettuce; Extends post-harvest shelf life and salability of spinach; Extends post-harvest shelf life and salability of leafy vegetables.]

Wettable Dry Granule

ACTIVE INGREDIENT:

Harpinαβ Protein: 1.0%

OTHER INGREDIENTS: 99.0%

Total: 100.0%

EPA Reg. No. 71771-3 EPA Est. No. 71771-PA-001

KEEP OUT OF REACH OF CHILDREN

CAUTION  
PRECAUCIÓN

See additional precautionary statements elsewhere on this label.

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Net Weight:

PLANT HEALTH CARE, INC.  
285 Kappa Drive, Suite 100, Pittsburgh, PA 15238  
1-800-421-9051 • www.planthealthcare.com

Read the entire label before using this product.

Read WARRANTY AND DISCLAIMER before buying or using. If terms are not acceptable, return at once unopened.

Notification Accepted

Date: 10/13/2011

Reviewer: M.G. Paden

FIRST AID	
If Inhaled:	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical treatment information, call the National Pesticide Information Center at 1-800-858-7378, 6:30 AM to 4:30 PM Pacific Time, seven days a week. During other times, call the poison control center at 1-800-222-1222.	

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Shoes and socks.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

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

ENVIRONMENTAL HAZARDS

For terrestrial uses: 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 wash waters or rinsate.

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 State or Tribal agency responsible for pesticide regulation.

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### 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 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.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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; and
- Shoes and socks.

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

### PRODUCT INFORMATION

ProAct stimulates the plant's natural growth and defense systems, enhancing overall plant health. [ALTERNATE TEXT: ProAct stimulates the natural growth and defense systems of crops, enhancing overall plant health.] Healthier plants exhibit increased plant stamina and vigor, leading to one or more of the following benefits: increased plant growth, improved stand, suppressed nematode egg production, increased marketable yield, enhanced quality, extended shelf life, and improved transplant recovery.

ProAct is a tool for use in Integrated Crop Management (ICM). [ALTERNATE TEXT: ProAct is a tool for use in Integrated Landscape Management.] It has no direct killing effect on pests. Product efficacy is based on its ability to activate the plant's own internal defense and growth mechanisms. ProAct works best when used in conjunction with good crop management practices. [ALTERNATE TEXT: ProAct works best when used in conjunction with good landscape management practices.]

#### NEMATODE EGG SUPPRESSION AND PLANT GROWTH

ProAct can be used to suppress nematode egg production while improving plant and root growth. ProAct offers a different mode of action for nematode suppression. Use of a labeled pre-plant application of a soil fumigant, contact nematicide, or nematocidal seed treatment is typically needed for nematode suppression in most crops. [ALTERNATE TEXT: Use of a labeled pre-plant application of a soil fumigant, contact nematicide, or nematocidal seed treatment is suggested for nematode management in most situations.] Apply ProAct for supplemental suppression of nematode egg production.

### GROWTH ENHANCEMENT AND MARKETABLE YIELD

Use ProAct to overcome transplant shock, enhance plant growth and quality, mend rhizomatous turf types, and increase plant health and vigor to assist in the management of certain diseases and to enhance crop quality and marketable production.

### POST-HARVEST BENEFITS

Use ProAct to extend shelf life and overcome transplant shock through pre-harvest applications. [ALTERNATE TEXT: Use ProAct to extend post-harvest shelf life and salability of head lettuce. Use ProAct to extend post-harvest shelf life and salability of leaf lettuce. Use ProAct to extend post-harvest shelf life and salability of spinach. Use ProAct to extend post-harvest shelf life and salability of leafy vegetables. Use ProAct to extend post-harvest shelf life and salability.]

### SITES

Use ProAct for greenhouse, shadehouse, nursery, and field production of all plants listed on this label. [ALTERNATE TEXT: Use ProAct on plants in ornamental gardens, athletic fields, parks, golf courses, and public or private lawns and grounds, and that are intended for aesthetic purposes or climatic modification.]

### COVERAGE

Use spray volume adequate to obtain coverage without runoff. Uniform or full leaf coverage is helpful but is not required.

### DAYS TO HARVEST

ProAct can be applied up to the day of harvest.

## USE PRECAUTIONS

### USE PROMPTLY

Use product on the same day it is mixed with water and use opened packages within 3 weeks. Carefully reseal opened packages to minimize exposure to air and moisture.

### TANK MIXING

**Use in Mixtures:** ProAct is believed to be compatible with most other labeled pesticides, such as post-emergence herbicides, insecticides, acaricides, and fungicides, as well as most foliar nutritional products. To determine the physical compatibility of this product with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to approximately one quart of water with agitation. Add dry flowables first, then flowables, and then emulsifiable concentrates last. After thorough mixing, allow this mixture to stand for 5 minutes. If the combination remains mixed or can be readily remixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding products to the spray tank. Do not mix this product with any other product containing a label prohibition against such mixing. When tank mixing ProAct with any other approved pesticide, always read and follow all use directions, restrictions, and precautions of both ProAct and the tank mix partner(s). The resulting tank mix must be used in accordance with the most restrictive label limitations and precautions. Do not exceed label dosage rates. [ALTERNATE TEXT: If ProAct cannot be put in the tank first, before adding it to the tank, slurry the ProAct in a small amount of clean water and add the slurry to the tank.]

**Glyphosate Herbicides:** When tank mixing ProAct with glyphosate for application on crops designated Roundup Ready®, only use formulations of glyphosate herbicide that are fully labeled for use on Roundup Ready® crops. Never spray this mixture on crops that are not designated Roundup Ready® as severe injury or death of the crop can occur. Some glyphosate formulations allow for the addition of surfactants. Please refer to the surfactant recommendations from the manufacturer.

**Precautions:** Do not use ProAct in tank mixes or water below pH 5 or above pH 10. Do not mix this product with pyrophosphates, phosphoric acid, or other strong oxidizers.

**Surfactants:** Use only non-ionic adjuvants approved for use on growing crops.

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**[OPTIONAL TEXT: DILUTION WATER QUALITY]**

If dilution water is high in total mineral content, salinity, suspended solids and/or exhibits any other factors that reduce the solubility of ProAct, then first dissolve ProAct in an appropriate volume of "clean water" such as municipal tap water. Pour the dissolved ProAct solution into the dilution water for the spray (see step 1 of "Mixing Instructions".)

**[OPTIONAL TEXT: DILUTION WATER QUANTITY]**

If 1 ounce of ProAct is diluted in more than 35 gallons of chlorinated water (e.g., municipal water), add a labeled water treatment product to remove excess chlorine before adding ProAct. Consult your Plant Health Care representative if you need further directions on water treatment.]

**CROP RIPENING**

Crop maturity can infrequently differ in crops treated with ProAct. User must monitor crops for maturity and harvest accordingly.

**RAIN**

Do not apply during rain. Reapplication is not necessary if the spray has dried before rain begins.

**STRESSED PLANTS**

Plants must be actively growing at the time of foliar applications. Applications made to plants that are stressed by extreme heat, cold, moisture, or nutrient deficiency can be less effective.

**SPRAY DRIFT**

Avoiding spray drift at the application site is the responsibility of the applicator. The interactions of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering these factors when making decisions.

**MIXING INSTRUCTIONS**

- Step 1.** Fill at least one-half of the mix tank with clean water. Provide gentle agitation.
- Step 2.** **[OPTIONAL TEXT:** If 1 ounce of ProAct is diluted in more than 35 gallons of chlorinated water, add a labeled water treatment product and continue gentle agitation (see Use Precautions on "Dilution Water Quantity").]
- Step 3.** **[OPTIONAL TEXT:** If dilution water quality is suspect, dissolve ProAct in clean water before adding to the mix tank (see Use Precautions on "Dilution Water Quality").] Add the required amount of ProAct. Agitate until dissolved and avoid excessive foaming.
- Step 4.** If tank mixing, add other materials to the mix tank. Add remaining water to mix tank.
- Step 5.** Continue gentle agitation and apply promptly.

**APPLICATION INSTRUCTIONS**

Apply ProAct as a pre-transplant foliar, root dip, or as a foliar application, including pre-harvest foliar applications for post-harvest benefits. **[ALTERNATE TEXT:** Apply ProAct as a pre-transplant root dip or as a foliar application.]

**Pre-Plant Dip:** Apply ProAct as a pre-plant foliar or root dip to vegetable crops (e.g., cucurbit and cole vegetables), ornamentals, tobacco, and small fruit crops at the rate of 1 – 9 oz per 100 gallons of water immediately prior to transplanting. **[ALTERNATE TEXT:** Apply ProAct as a pre-plant foliar or root dip to bare root ornamentals at the rate of 3 – 9 oz per 100 gallons of water immediately prior to transplanting.] **[OPTIONAL TEXT:** Wash transplants to remove excess soil prior to dipping.] Completely immerse planting stock in solution. Dip, soak, or expose plants for a minimum of 2 to 5 minutes. DO NOT reuse dip solution. Dispose of dip solution according to local restrictions. Plant treated plants as quickly as possible. For continued crop management, follow with foliar applications of ProAct as specified in the tables that follow. **[ALTERNATE TEXT:** For continued plant management, follow with foliar applications of ProAct as specified in the sections that follow.]

**Foliar Application:** Apply ProAct as a greenhouse or field application using conventional ground or aerial equipment. Use ProAct to enhance plant growth and vigor, to increase marketable production, or as part of

an integrated pest management (IPM) program to assist disease management and obtain post-harvest benefits.

**[ALTERNATE TEXT:**

- **LANDSCAPE PLANTS**, such as broadleaf and coniferous trees, fruit trees, palms, vines, shrubs, brambles, berries, ground covers, perennials, and annual ornamental plants: Once per month during the growing season, apply 2 oz of ProAct per 50 gallons of water to landscape plants.
- **TURF**, such as public and private lawns and grounds, golf courses and greens, athletic fields, and parks: Once per month during the growing season, apply 2 oz of ProAct per acre of turf. If using more than 70 gallons of chlorinated water (e.g., municipal water) per acre of turf, add a labeled dechlorinator with water before adding ProAct.]

**Application via Sprinkler or Drip (Trickle) Chemigation Systems:**

Apply this product only through sprinkler (including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move) and drip (trickle) irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury and lack of effectiveness can result from non-uniform distribution of treated water. If you have questions about your system's calibration, you should contact State Extension Service Specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

**Sprinkler Chemigation System Requirements:** The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back-flow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment. Apply product continuously for the duration of the water application.

**Drip (Trickle) Chemigation System Requirements:** The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back-flow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Apply product continuously for the duration of the water application.

## CROPS AND APPLICATION RATES

Use the following tables to make decisions on application rates and timing. Follow applicable specifications for your crop.

### Nematode Suppression

Use ProAct for supplemental suppression of nematodes. Use ProAct in conjunction with other nematode management practices. Use rates as specified beside each crop or crop grouping in tables below.	
Crop	Use Instructions
<b>DIRECT-SEEDED CROPS</b>	<b>In Field:</b> Use ProAct following a pre-plant application of soil fumigant, contact nematicide, or nematicidal seed treatment, if available. Make first foliar application of ProAct at 2 – 3 weeks after plant emergence. Re-apply as specified in tables below.
<b>TRANSPLANTED CROPS</b>	Use ProAct following a pre-plant application of soil fumigant, contact nematicide, or nematicidal seed treatment, if available.  <b>Pre-Plant:</b> Apply ProAct as a pre-plant foliar or root dip at the rate of 3 – 9 oz per 100 gallons of water immediately prior to transplanting.  <b>In Field:</b> Make first foliar application of ProAct at 2 – 3 weeks after transplanting. Re-apply as specified in tables below.
<b>PERENNIAL CROPS</b>	<b>In Field:</b> Use ProAct following a pre-plant application of soil fumigant, contact nematicide, or nematicidal seed treatment, if available. Make first foliar application of ProAct after plants break dormancy and begin root growth. Re-apply as specified in tables below.

### Greenhouse and Transplant Applications

Use Site & Crop	Rate	Timing
<b>Greenhouse:</b> Any Crop Listed Elsewhere on This Label	1 – 9 oz per 100 gal water	Apply overhead applications after seedling emergence. Repeat every 14 – 21 days.
<b>Transplant:</b> Any Crop Listed Elsewhere on This Label	1 – 9 oz per 100 gal water	Apply 5 – 7 days before transplanting. Can also be applied as a plant drench at transplanting.

### Vegetable and Other Crops

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
<b>PERENNIAL VEGETABLES</b> Globe Artichoke Asparagus	1 – 9	10 – 200 by ground. 2 – 50 by air.	Apply as a foliar spray at 14-day intervals, beginning at new growth. [ALTERNATE TEXT: Begin applications when new growth starts in spring. Repeat at 21- to 28-day intervals as needed.]
<b>POTATO</b>			Apply at tuber initiation. Repeat applications as needed every 21 – 28 days.
<b>OTHER ROOT AND TUBER VEGETABLES</b>			Apply at 14-day intervals, beginning at new growth. [ALTERNATE TEXT: Apply after complete emergence during vegetative growth phase.]

<b>OTHER VEGETABLES</b> Bulb, Leafy, Cole, Fruiting (e.g., Okra), Cucurbit, Legume			Begin applications at first new growth and repeat at 14-day intervals. [ALTERNATE TEXT: Begin applications prior to first bloom. Repeat applications at 21- to 28-day intervals. For direct-seeded plants, begin at first true leaf.]
<b>SWEET CORN</b> (Fresh or Seed)	0.5 – 9	10 – 200 by ground. 2 – 50 by air.	Apply at 14-day intervals, beginning at first new growth. [ALTERNATE TEXT: Make 1 – 2 applications before tassels present.]

### Field Crops

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
<b>COTTON</b>	0.5 – 9	5 – 200 by ground. 2 – 50 by air.	Apply at first true leaf, first bloom, and 21 days after first bloom to boost overall growth and production. For suppression of pests, begin applications prior to infestation and repeat at 14-day intervals. [ALTERNATE TEXT: Apply between 2 leaf stage and mid-bloom.]
<b>FORAGE CROPS</b> (Grass, Hay, Nongrass)			Apply at 14-day intervals, beginning after new growth commences and at cutting. [ALTERNATE TEXT: Apply after new growth commences and at each cutting. For newly seeded crops, begin at first true leaf.]
<b>CORN</b> (Grain, Silage, Seed or Pop)			Apply at 14-day intervals, beginning at new growth. [ALTERNATE TEXT: Apply after complete emergence during vegetative growth phase.]
<b>OILSEED CROPS</b> Flax			Begin applications at new growth and repeat at 14-day intervals through harvest. [ALTERNATE TEXT: Apply after complete emergence during vegetative growth phase.]
<b>SUGAR BEETS</b>			Apply at 14-day intervals, beginning at new growth. [ALTERNATE TEXT: Apply after complete emergence during vegetative growth phase.]
<b>CEREAL GRAINS</b> (Rice, Sorghum)			Apply at 14-day intervals, beginning at new growth. Apply as needed for wheat sheath blight. [ALTERNATE TEXT: Apply after complete emergence during vegetative growth phase.]
<b>SUGARCANE</b>			Apply after new growth commences. Repeat at 28- to 35-day intervals as needed.

### Tobacco

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
<b>TOBACCO – All Types</b>	1 – 13	10 – 200 by ground. 2 – 50 by air.	Apply at 14-day intervals, beginning 7 days after transplanting through harvest. [ALTERNATE TEXT: Begin applications when plants are established. Repeat at 21- to 28-day intervals as needed.]

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**Berries and Small Fruit**

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
<b>BERRIES AND SMALL FRUIT – All Types</b>	1 – 13	10 – 200 by ground. 2 – 50 by air.	Apply at 14-day intervals while plants are actively growing, beginning in the greenhouse or nursery and after transplanting. For fall-transplanted strawberries, resume applications in spring. [ALTERNATE TEXT: Begin applications when plants are established or 14 days after full leaf emergence. Repeat at 21- to 28-day intervals as needed.]

**Trees and Vines**

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
<b>AVOCADO</b>	1 – 13	10 – 200 by ground. 2 – 50 by air.	Apply at 14-day intervals, beginning at new growth. [ALTERNATE TEXT: Apply at 21- to 35-day intervals, beginning before bloom initiation.]
<b>CITRUS</b>			Apply at 14-day intervals, beginning at new growth. [ALTERNATE TEXT: Apply at 21- to 35-day intervals, beginning before bloom initiation.]
<b>TREE NUTS</b>			Apply at 14-day intervals, beginning at new growth. [ALTERNATE TEXT: Apply at 21- to 35-day intervals, beginning before bloom initiation.]
<b>POME FRUIT</b> Apple, Pear			Apply 2 pre-bloom sprays, once at new growth and again 7 – 10 days later. Follow with post-bloom sprays at 14-day intervals. [ALTERNATE TEXT: Apply at 21- to 35-day intervals, beginning before bloom initiation.] For peaches, apply at pit hardening and again 21 days later.
<b>STONE FRUIT</b>			
<b>VINE CROPS</b> Grapes (Juice, Raisin, Table, Wine) Kiwi fruit Hops		10 – 200 by ground. 2 – 50 by air.	Apply at 14-day intervals, beginning when new shoot growth is present. Under moderate to heavy disease pressure, optimal results can be obtained by alternating or tank mixing with other products. [ALTERNATE TEXT: Apply at 21- to 28-day intervals, beginning when new shoot growth is present.]
<b>TREES</b> Conifer Broadleaf		10 – 200 by ground. 2 – 50 by air.	Apply after complete emergence.

**Turf and Ornamentals**

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
<b>TURF GRASSES – All Types</b>	1 – 8	10 – 200 by ground. 2 – 50 by air.	Begin applications when plants are established or 14 days after full emergence. Repeat at 28- to 35-day intervals.

<b>ORNAMENTALS</b>	1 – 9	10 – 200 by ground. 2 – 50 by air.	Apply at 14- to 17-day intervals, beginning 7 days after transplant and/or potting/repotting or once plants have initiated bud/leaf or fully leafed out. For roses, begin applications 7 days after grafted cuttings are planted and continuing at 14- to 17-day intervals. [ALTERNATE TEXT: Begin applications prior to first bloom. Repeat at 21- to 28-day intervals.]
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**Specialty Crops**

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
<b>ALOE</b> <b>BANANA</b> <b>COFFEE</b> <b>FIGS</b> <b>HERBS – All Types</b> <b>MANGO</b> <b>PAPAYA</b> <b>PINEAPPLE</b>	1 – 13	10 – 200 by ground. 2 – 50 by air.	Apply at 21- to 28-day intervals, beginning 7 days after new growth/new spring growth is initiated.

**Grasses Grown For Seed**

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
<b>TURF GRASSES</b> <b>FORAGE GRASSES</b>	0.5 – 9	10 – 200 by ground. 2 – 50 by air.	Apply at 14-day intervals, beginning 14 days after full emergence.

**Pre-Harvest Applications for Post-Harvest Benefits**

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
Any Crop Listed Elsewhere on This Label	1 – 10	20 – 200 by ground. 2 – 50 by air.	Apply 1 – 14 days before harvest. If no previous applications of ProAct have been made, use higher rates.

**Foliar Nutrient Applications**

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing and Use with Foliar Fertilizer
Any Crop Listed Elsewhere on This Label	1 – 4	5 – 200 by ground. 2 – 50 by air.	Apply with foliar fertilizer applications at a rate of 1 oz ProAct per 5 lb foliar fertilizer.

## STORAGE AND DISPOSAL

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

### PESTICIDE STORAGE

Keep product away from exposure to air, sunlight, moisture, or heat. Do not store in temperatures over 110°F for more than 7 days. Use product within 3 weeks of opening and the same day as mixing.

### PESTICIDE DISPOSAL

Wastes resulting from use of this product must be disposed of on site or at an approved waste disposal facility.

### CONTAINER HANDLING

Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## WARRANTY AND DISCLAIMER

### CONDITIONS OF SALE AND EXCLUSIVE 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 [ALTERNATE TEXT: Plant] injury, ineffectiveness of the product, or other unintended consequences may result because of such factors as horticultural practices, use with other products (unless otherwise expressly provided in the Directions for Use of this product), presence of other materials, the manner of use or application, and various environmental conditions, including but not limited to weather conditions and moisture conditions. To the extent consistent with applicable law, all of the aforementioned risks are beyond the control of Plant Health Care, Inc. and the Buyer shall assume all such risks.

### EXCLUSIVE WARRANTIES

Plant Health Care, Inc. warrants that, at the time of first sale of this product, it conforms to the chemical description on this label and, under normal conditions, 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, if this product does not perform as warranted above, customer's sole remedy for breach of that warranty shall be replacement of the product or refund of the purchase price paid, at the option of Plant Health Care, Inc. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, TERMS, OR CONDITIONS EXPRESSED OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING BUT NOT LIMITED TO WARRANTIES, TERMS, OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, AND SATISFACTORY QUALITY.

### LIMITATION OF LIABILITY

To the extent consistent with applicable law, Plant Health Care, Inc. excludes for itself and its suppliers any liability, whether based in contract or tort (including negligence), for incidental, consequential, indirect, special, or punitive damages of any kind, or for loss of revenue or profits, loss of business, or crop [ALTERNATE TEXT: plant] injury arising out of or in connection with the sale, use, injury, performance, or failure of this product, even if Plant Health Care, Inc. or its authorized reseller has been advised of the possibility of such damages, and limits its liability to replacement of the product or a refund of the purchase price paid, at the option of Plant Health Care, Inc. This disclaimer of liability for damages will not be affected if any remedy provided by this label fails of its essential purpose.

### ASSUMPTION OF RISK

To the extent consistent with applicable law, Buyer and User of this product assume the risk of any use contrary to the Directions for Use and/or all of the risks inherent in the use of the product as set forth above. Plant Health Care, Inc. offers this product, and the Buyer and User accept it, subject to the foregoing Conditions of Sale and Exclusive Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of Plant Health Care, Inc.

### PROMPT NOTICE OF CLAIM

Plant Health Care, Inc. must have prompt notice as soon as Buyer or User has reason to believe they may have a claim (not to exceed twenty-one days from the date of application) so that an inspection of the affected property and growing crops [ALTERNATE TEXT: plants] may be made. To the extent consistent with applicable law, unless Buyer and User promptly notify Plant Health Care, Inc. of any claims, they shall be barred from obtaining any remedy.

### TANK MIXES

To the extent consistent with applicable law, tank mixing or use of this product with any other product, which is not specifically and expressly authorized by this label, shall be the exclusive risk of User, Applicator, and/or Application Advisor. Read and follow the entire label of each product to be used in a tank mix with this product.

### LIMITED USE LICENSE AND PATENTS

The contents of this package and/or the use of the contents are covered by U.S. Patent Nos. 5,849,868, 5,859,324, 5,776,889, 5,977,060, and 6,277,814 as well as pending patent applications. The purchase of this package grants the Buyer a license, under these patents and patent applications, to use its contents only for treating plants, plant seeds, and other plant parts as described by this label.

© 2011 Plant Health Care, Inc. ProAct® is a registered trademark of Plant Health Care, Inc. Always read and follow label instructions before buying or using this product. Roundup Ready® is a registered trademark of Monsanto Technology LLC.

[BARCODE]

XX.XXXX ProAct US Ag



# ProAct®

[Alternate Brand Names: N-Hibit® Gold CST,  
N-Hibit® HX-209]

## Seed Treatment

[OPTIONAL TAG LINES – For use individually or in combination on labels: A biochemical pesticide seed treatment for yield enhancement; Improves standability; Decreases lodging; Increases plant stamina and vigor; Plant Health Regulator; Plant Health Promoter; Activates plant growth and defense systems; Suppresses nematode egg production; Increases Root Mass; Enhances plant health; Facilitates Integrated Pest Management Programs; Harp-N-Tek™ *inside* [LOGO]; Harp-N-Tek is Plant Health Care's trademark for its proprietary harpin protein technology.]

### FOR USE ONLY BY COMMERCIAL SEED TREATMENT FACILITIES

#### Wettable Dry Granule

**ACTIVE INGREDIENT:**

Harpin $\alpha\beta$  Protein: ..... 1.0%

**OTHER INGREDIENTS:** ..... 99.0%

Total: ..... 100.0%

EPA Reg. No. 71771-3      EPA Est. No. 71771-PA-001

### KEEP OUT OF REACH OF CHILDREN

### CAUTION

See additional precautionary statements elsewhere on this label.

#### Net Weight:

**PLANT HEALTH CARE, INC.**  
285 Kappa Drive, Suite 100, Pittsburgh, PA 15238  
1-800-421-9051 • www.planthealthcare.com

Read the entire label before using this product.

Read WARRANTY AND DISCLAIMER before buying or using. If terms are not acceptable, return at once unopened.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### CAUTION

Harmful if inhaled. Avoid breathing dust or spray mist. Remove and wash contaminated clothing before reuse.

#### FIRST AID

**If Inhaled:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further 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 emergency medical treatment information, call the National Pesticide Information Center at 1-800-858-7378, 6:30 AM to 4:30 PM Pacific Time, seven days a week. During other times, call the poison control center at 1-800-222-1222.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Shoes and socks.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### USER SAFETY RECOMMENDATIONS

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

#### ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment wash waters or rinsate.

#### 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 State or Tribal agency responsible for pesticide regulation.

#### PRODUCT INFORMATION

##### GROWTH ENHANCEMENT

Use ProAct to increase plant health and vigor, suppress nematode egg production, increase root mass and enhance crop quality and production.

##### USE PRECAUTIONS

##### MIXING WITH OTHER SEED TREATMENT PRODUCTS

Read and follow the entire label of each product to be used in combination with this product. ProAct is believed to be compatible with most other labeled pesticides. To determine the physical compatibility of this product with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to approximately one quart of water with agitation. Add dry flowables first, then flowables, and then emulsifiable concentrates last. After thorough mixing, allow this mixture to stand for 5 minutes. If the combination remains mixed or can be readily remixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding products to the seed treatment equipment.

##### USE PROMPTLY

Use product within 24 hours after it is mixed with water and use opened packages within 3 weeks. Carefully reseal opened packages to minimize exposure to air and moisture.

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## MIXING INSTRUCTIONS

Mix ProAct as follows:

- Step 1.** Mix the required amount of ProAct with water or other water-based materials directly into the mix tank, or initially in a separate container, and provide agitation.
- Step 2.** Agitate until dissolved and avoid excessive foaming.
- Step 3.** When tank mixing, add other materials to the mix tank in the order determined appropriate based on compatibility testing.
- Step 4.** Continue to agitate until dissolved and avoid excessive foaming.
- Step 5.** Promptly apply seed treatment mixture to seed.

## APPLICATION INSTRUCTIONS

Apply ProAct commercial seed treatment to seed using application rates specified for the crops listed below. Mix ProAct with other commercial seed treatments, as needed, unless specifically prohibited on labeling of other products in the mixture or if the mixture fails the compatibility jar test. Use of the resulting mix must be in accordance with the most restrictive label limitations and precautions on any of the products in the mixture. Allow treated seeds to dry before bagging.

## CROPS AND APPLICATION RATES

### Vegetable and Other Crops

Crop	Rate
BULB VEGETABLES CUCURBIT VEGETABLES FRUITING VEGETABLES LEAFY AND COLE VEGETABLES LEGUME VEGETABLES ROOT AND TUBER VEGETABLES SWEET CORN	0.1 – 5 oz per 100 lb seed

### Field Crops

Crop	Rate
CORN (Grain, Silage, Seed, or Pop) COTTON FORAGE CROPS OILSEED CROPS PEANUT	0.1 – 5 oz per 100 lb seed

### Cereal Grain Crops

Crop	Rate
RICE SORGHUM	0.1 – 5 oz per 100 lb seed

### Tobacco

Crop	Rate
TOBACCO – All Types	0.1 – 5 oz per 100 lb seed

### Berries and Small Fruit

Crop	Rate
BERRIES AND SMALL FRUIT – All Types	0.1 – 5 oz per 100 lb seed

### Trees and Vines

Crop	Rate
AVOCADO CITRUS TREE NUTS POME FRUIT STONE FRUIT VINE CROPS TREES (Conifer, Broadleaf)	0.1 – 5 oz per 100 lb seed

## Turf and Ornamentals

Crop	Rate
GRASSES – All Types ORNAMENTALS (Bulbs, Seeds or Tubers) – All Types	0.1 – 5 oz per 100 lb seed

## Specialty Crops

Crop	Rate
ALOE BANANA COFFEE FIGS HERBS – All Types MANGO PAPAYA PINEAPPLE	0.1 – 5 oz per 100 lb seed

## Grasses Grown For Seed

Crop	Rate
TURF GRASSES FORAGE GRASSES	0.1 – 5 oz per 100 lb seed

## [ALTERNATE TEXT:

Crop	Rate
LEEK, ONION	2 – 4 oz per 100 lb seed
LETTUCE, SPINACH, FENNEL	2 – 4 oz per 100 lb seed
BROCCOLI, CABBAGE, CAULIFLOWER, CHINESE CABBAGE	2 – 4 oz per 100 lb seed
DRY BEAN, GARDEN BEAN, PEA	0.25 – 1 oz per 100 lb seed
CUCUMBER, EDIBLE GOURD, MELON, PUMPKIN, SQUASH, WATERMELON	2 – 4 oz per 100 lb seed
EGGPLANT, HOT PEPPER, OKRA, SWEET PEPPER, TOMATO, TOMATO SEED FOR ROOTSTOCK PRODUCTION	2 – 4 oz per 100 lb seed
CARROT, RADISH	2 – 4 oz per 100 lb seed
SWEET CORN	0.75 oz per 100 lb seed

## Field Crops

Crop	Rate
CANOLA	2 – 4 oz per 100 lb seed
CORN (Grain, Silage, Seed, or Pop)	0.1 – 1 oz per 100 lb seed
COTTON	1 – 4 oz per 100 lb seed
SOYBEAN	0.1 – 1 oz per 100 lb seed

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## STORAGE AND DISPOSAL

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

### PESTICIDE STORAGE

Keep product away from exposure to air, sunlight, moisture, or heat. Do not store in temperatures over 110°F for more than 7 days. Use product within 3 weeks of opening and within 24 hours after mixing.

### PESTICIDE DISPOSAL

Wastes resulting from use of this product must be disposed of on site or at an approved waste disposal facility.

### CONTAINER HANDLING

Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## WARRANTY AND DISCLAIMER

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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 of the product, or other unintended consequences may result because of such factors as horticultural practices, use with other products (unless otherwise expressly provided in the Directions for Use of this product), presence of other materials, the manner of use or application, and various environmental conditions, including but not limited to weather conditions and moisture conditions. To the extent consistent with applicable law, all of the aforementioned risks are beyond the control of Plant Health Care, Inc. and the Buyer shall assume all such risks.

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### LIMITATION OF LIABILITY

To the extent consistent with applicable law, Plant Health Care, Inc. excludes for itself and its suppliers any liability, whether based in contract or tort (including negligence), for incidental, consequential, indirect, special, or punitive damages of any kind, or for loss of revenue or profits, loss of business, or crop injury arising out of or in connection with the sale, use, injury, performance, or failure of this product, even if Plant Health Care, Inc. or its authorized reseller has been advised of the possibility of such damages, and limits its liability to replacement of the product or a refund of the purchase price paid, at the option of Plant Health Care, Inc. This disclaimer of liability for damages will not be affected if any remedy provided by this label fails of its essential purpose.

### ASSUMPTION OF RISK

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### PROMPT NOTICE OF CLAIM

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### TANK MIXES

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### LIMITED USE LICENSE AND PATENTS

The contents of this package and/or the use of the contents are covered by U.S. Patent Nos. 5,849,868, 5,859,324, 5,776,889, 5,977,060, and 6,277,814 as well as pending patent applications. The purchase of this package grants the Buyer a license, under these patents and patent applications, to use its contents only for treating plants, plant seeds, and other plant parts as described by this label.

© 2011 Plant Health Care, Inc. ProAct® is a registered trademark of Plant Health Care, Inc. Always read and follow label instructions before buying or using this product.

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XX.XXXX ProAct US Ag

# ProAct<sup>®</sup>

[Alternate Brand Name: N-Hibit<sup>®</sup> Gold HB]

## Pre-Plant Seed Treatment

**[OPTIONAL TAG LINES – For use individually or in combination on labels:** A biochemical pesticide seed treatment that: Improves stand establishment; Suppresses nematode egg production; Enhances crop growth, quality and yield; Increases Root Mass; Activates plant growth and defense systems; Plant Health Regulator; Plant Health Promoter; Improves standability; Decreases lodging; Increases plant stamina and vigor; Enhances plant health; Facilitates Integrated Pest Management Programs; Harp-N-Tek™ *inside* [LOGO]; Harp-N-Tek is Plant Health Care's trademark for its proprietary harpin protein technology.]

**FOR USE ONLY AS SEED TREATMENT IMMEDIATELY PRIOR TO PLANTING**

### Dry Powder

**ACTIVE INGREDIENT:**

Harpin $\alpha\beta$  Protein: ..... 1.0%

**OTHER INGREDIENTS:** ..... 99.0%

Total: ..... 100.0%

EPA Reg. No. 71771-3      EPA Est. No. 71771-PA-001

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION  
PRECAUCIÓN**

See additional precautionary statements elsewhere on this label.

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle (If you do not understand the label, find someone to explain it to you in detail.)

**Net Weight:**

**PLANT HEALTH CARE, INC.**  
285 Kappa Drive, Suite 100, Pittsburgh, PA 15238  
1-800-421-9051 • www.planthealthcare.com

Read the entire label before using this product.

Read **WARRANTY AND DISCLAIMER** before buying or using. If terms are not acceptable, return at once unopened.

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Harmful if inhaled. Avoid breathing dust. Remove and wash contaminated clothing before reuse.

**FIRST AID**

**If Inhaled:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further 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 emergency medical treatment information, call the National Pesticide Information Center at 1-800-858-7378, 6:30 AM to 4:30 PM Pacific Time, seven days a week. During other times, call the poison control center at 1-800-222-1222.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Shoes and socks.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS**

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

**ENVIRONMENTAL HAZARDS**

For terrestrial uses: 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 wash waters or rinsate.

**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 State or Tribal agency responsible for pesticide regulation.

**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 apply to

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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.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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; and
- Shoes and socks.

**PRODUCT INFORMATION**

ProAct stimulates the plant's natural growth and defense systems, enhancing overall plant health. Healthier plants exhibit increased plant stamina and vigor, leading to one or more of the following benefits: improved stand and root establishment, suppressed nematode egg production, increased marketable yield, and enhanced quality. ProAct works best when used in conjunction with good crop management practices.

**GROWTH ENHANCEMENT AND MARKETABLE YIELD**

Use ProAct to increase plant health and vigor, to assist in the management of certain diseases, to suppress nematode egg production, to improve stand and root establishment, and to enhance crop quality and marketable production.

**SITES**

Use ProAct as a pre-plant seed treatment in greenhouses, shadehouses, and nurseries or for field production of all crops listed on this label.

**USE PRECAUTIONS**

**USE PROMPTLY**

Use product promptly to minimize absorption of water. Carefully reseal opened packages to minimize exposure to air and moisture. Use opened packages within 3 weeks.

**MIXING**

Use ProAct in addition to other dry commercial seed treatments and in conjunction with other dry hopper box treatments. Apply ProAct only to dry seed. Do not mix ProAct with water. Check with your local Plant Health Care representative for specific compatibility information for ProAct and other labeled products.

**USE OF TREATED SEED**

Treat only seeds needed for immediate use, minimizing the interval between treatment and planting. Do not store excess treated seed beyond planting time.

**APPLICATION INSTRUCTIONS**

Apply ProAct as a dry pre-plant seed treatment. Apply product to dry seed using standard seed treatment equipment or apply directly to the hopper box. When applying directly to the hopper box, fill half the hopper box with seed and sprinkle the appropriate half-rate of ProAct over seed. See the appropriate application rates under CROPS and APPLICATION RATES. Finish filling the hopper box with seed and sprinkle the remaining ProAct over the new seed.

**CROPS AND APPLICATION RATES**

**Vegetable and Other Crops**

Crop	Rate
FRUITING VEGETABLES LEAFY AND COLE VEGETABLES LEGUME VEGETABLES CUCURBIT VEGETABLES ROOT AND TUBER VEGETABLES ONION GARLIC SCALLION SWEET CORN	0.1 – 5 oz per 100 lb seed

**Field Crops**

Crop	Rate
COTTON FORAGE CROPS CORN (Grain, Silage, Seed, or Pop) OILSEED CROPS CEREAL GRAINS (Rice, Sorghum) SUGARCANE	0.1 – 5 oz per 100 lb seed

**Tobacco**

Crop	Rate
TOBACCO – All Types	0.1 – 5 oz per 100 lb seed

**Berries and Small Fruit**

Crop	Rate
BERRIES AND SMALL FRUIT – All Types	0.1 – 5 oz per 100 lb seed

**Trees and Vines**

Crop	Rate
AVOCADO CITRUS TREE NUTS POME FRUIT (Apple, Pear) STONE FRUIT VINE CROPS TREES (Conifer, Broadleaf)	0.1 – 5 oz per 100 lb seed

**Turf and Ornamentals**

Crop	Rate
GRASSES – All Types ORNAMENTALS (Bulbs, Seeds, or Tubers) – All Types	0.1 – 5 oz per 100 lb seed

**Specialty Crops**

Crop	Rate
ALOE BANANA COFFEE FIGS HERBS – All Types MANGO PAPAYA PINEAPPLE	0.1 – 5 oz per 100 lb seed

**Grasses Grown For Seed**

Crop	Rate
TURF GRASSES FORAGE GRASSES	0.1 – 5 oz per 100 lb seed

## STORAGE AND DISPOSAL

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

### PESTICIDE STORAGE

Keep product away from exposure to air, sunlight, moisture, or heat.  
Do not store in temperatures over 110°F for more than 7 days.  
Use product within 3 weeks of opening and the same day as mixing.

### PESTICIDE DISPOSAL

Wastes resulting from use of this product must be disposed of on site or at an approved waste disposal facility.

### CONTAINER HANDLING

Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## WARRANTY AND DISCLAIMER

### CONDITIONS OF SALE AND EXCLUSIVE 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 of the product, or other unintended consequences may result because of such factors as horticultural practices, use with other products (unless otherwise expressly provided in the Directions for Use of this product), presence of other materials, the manner of use or application, and various environmental conditions, including but not limited to weather conditions and moisture conditions. To the extent consistent with applicable law, all of the aforementioned risks are beyond the control of Plant Health Care, Inc. and the Buyer shall assume all such risks.

### EXCLUSIVE WARRANTIES

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### LIMITATION OF LIABILITY

To the extent consistent with applicable law, Plant Health Care, Inc. excludes for itself and its suppliers any liability, whether based in contract or tort (including negligence), for incidental, consequential, indirect, special, or punitive damages of any kind, or for loss of revenue or profits, loss of business, or crop injury arising out of or in connection with the sale, use, injury, performance, or failure of this product, even if Plant Health Care, Inc. or its authorized reseller has been advised of the possibility of such damages, and limits its liability to replacement of the product or a refund of the purchase price paid, at the option of Plant Health Care, Inc. This disclaimer of liability for damages will not be affected if any remedy provided by this label fails of its essential purpose.

### ASSUMPTION OF RISK

To the extent consistent with applicable law, Buyer and User of this product assume the risk of any use contrary to the Directions for Use and/or all of the risks inherent in the use of the product as set forth above. Plant Health Care, Inc. offers this product, and the Buyer and User accept it, subject to the foregoing Conditions of Sale and Exclusive Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of Plant Health Care, Inc.

### PROMPT NOTICE OF CLAIM

Plant Health Care, Inc. must have prompt notice as soon as Buyer or User has reason to believe they may have a claim (not to exceed twenty-one days from the date of application) so that an inspection of the affected property and growing crops may be made. To the extent consistent with applicable law, unless Buyer and User promptly notify Plant Health Care, Inc. of any claims, they shall be barred from obtaining any remedy.

### TANK MIXES

To the extent consistent with applicable law, tank mixing or use of this product with any other product, which is not specifically and expressly authorized by this label, shall be the exclusive risk of User, Applicator, and/or Application Advisor. Read and follow the entire label of each product to be used in a mix with this product.

### LIMITED USE LICENSE AND PATENTS

The contents of this package and/or the use of the contents are covered by U.S. Patent Nos. 5,849,868, 5,859,324, 5,776,889, 5,977,060, and 6,277,814 as well as pending patent applications. The purchase of this package grants the Buyer a license, under these patents and patent applications, to use its contents only for treating plants, plant seeds, and other plant parts as described by this label.

© 2011 Plant Health Care, Inc. ProAct® is a registered trademark of Plant Health Care, Inc. Always read and follow label instructions before buying or using this product.

[BARCODE]

XX.XXXX ProAct US Ag

# ProAct®

[Alternate Brand Name: Messenger® Gold]

**[OPTIONAL TAG LINES – For use individually or in combination on labels and/or accompanying materials:** For Home & Garden Use; Home, Yard & Garden; A Biochemical Plant Activator For Healthier Plants; Promotes Plant Growth; Concentrate; Helps Manage Disease For Home and Garden Use; For Healthier Plants; Healthier Plants; Better Blooms; Larger Harvests; Plant Health Regulator; Plant Health Promoter; Growth Stimulator; Easy to Use; Broad Spectrum; Promotes Plant Growth for Superior Gardens; Breakthrough Technology; Revolutionary; Effective; Economical; For Use in Water Gardens and Ornamental Ponds; Delivering stronger and healthier plants; Increases root mass; Improves the health of every plant you grow! Improves the health of every plant in your garden! Improves the health of every plant you grow in your Garden! Fruits • Garden Flowers & Shrubs • House Plants • Vegetables; Boost overall growth and production; Improve plant stamina & vigor; Strengthen a plant's resistance to disease; Mix and Spray, or Simply Mix and Spray, or Mix and Spray Every Three Weeks, or Simply Mix and Spray Every Three Weeks; Harp-N-Tek™ inside [LOGO]; Harp-N-Tek is Plant Health Care's trademark for its proprietary harpin protein technology.]

**ACTIVE INGREDIENT:**

Harpinαβ Protein: ..... 1.0%

**OTHER INGREDIENTS:** ..... 99.0%

Total: ..... 100.0%

EPA Reg. No. 71771-3      EPA Est. No. 71771-PA-001  
[ALTERNATE RE-PACKER'S EPA Est. No.: XXXXX-XX-XXX]

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See back panel for additional precautionary statements.

**Net Weight:**

[OPTIONAL – Packed for:]

Plant Health Care, Inc. • 285 Kappa Drive, Suite 100  
Pittsburgh, PA 15238  
1-800-421-9051 [And/Or] www.planthealthcare.com

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling

Harpinαβ, the active ingredient in ProAct, is derived from naturally occurring harpin proteins. ProAct stimulates the plant's natural growth and defense systems, enhancing overall plant health. Use ProAct to boost overall plant growth, vigor, and production, and to aid in the management of disease.

Use ProAct on all plants grown indoors and outdoors, including Roses and other Flowers, Vegetables, Fruiting Trees, Berries, Vines, Herbs, Floating and Emergent Aquatic Plants in Water Gardens and Ornamental Ponds, and all Ornamental Plants such as Trees, Shrubs, and Turf.

**Mixing and Application Instructions**

1. Add one packet to 3 gallons of water [ALTERNATE LANGUAGE FOR SMALL PACKET: Add one packet to 1 gallon of water] (¼ teaspoon per quart of water) and mix thoroughly.
2. Apply mixed product to plant foliage with a pump sprayer, mister, watering can, or other suitable applicator. Apply as a fine mist for most efficient coverage.
3. Apply when plants are actively growing. For best results, continue applications every 3 weeks through harvest, until first frost, or until plants become dormant.
4. Apply product the same day it is mixed. Re-apply if it rains within 30 minutes of application.
5. Carefully reseal opened packets to minimize exposure to air and moisture. Use opened packets within 3 weeks.

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**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE**

Store dry and out of direct sunlight. Do not store in temperatures over 110°F for more than 7 days.

**PESTICIDE DISPOSAL AND CONTAINER HANDLING**

Nonrefillable container. Do not reuse or refill this container.

**If empty:**

Place in trash or offer for recycling if available.

**If partly filled:**

Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Harmful if inhaled. Avoid breathing dust or spray mist. Remove and wash contaminated clothing before reuse. Wash your hands after use. People and pets may enter treated areas after spray has dried.

**FIRST AID**

**If Inhaled:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further 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 emergency medical treatment information, call the National Pesticide Information Center at 1-800-858-7378, 6:30 AM to 4:30 PM Pacific Time, seven days a week. During other times, call the poison control center at 1-800-222-1222.

**ENVIRONMENTAL HAZARDS**

To protect the environment, do not allow pesticide to enter or runoff into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind and rain does not blow or wash pesticide off the treatment area. Sweeping any product that lands on a driveway, sidewalk, or street back onto the treated area of the lawn or garden will help prevent runoff to water bodies or drainage systems.

**NOTICE: To the extent consistent with applicable law, buyer assumes all responsibility for safety and use not in accordance with label directions.**

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The contents of this package and/or the use of the contents are protected by U.S. Patent Nos. 5,849,868, 5,859,324, 5,776,889, 5,977,060, and 6,277,814. REFORMULATION OR REPACKAGING FOR SALE IS PROHIBITED.

© 2011 Plant Health Care, Inc. ProAct® is a registered trademark of Plant Health Care, Inc. Always read and follow label instructions before buying or using this product.

**[ALTERNATE LOCATION for Address/Phone/Website]**  
**[OPTIONAL – Packed for:]** Plant Health Care, Inc., 285 Kappa Drive, Suite 100, Pittsburgh, PA 15238.

**OPTIONAL LANGUAGE for labels and accompanying materials:**

CAN BE USED UP TO THE DAY OF HARVEST

**What does ProAct do?**

- Stimulates a plant's defense and growth mechanisms
- Boosts overall growth, vigor, and production
- Aids in the management of disease
- Improves the plant's ability to grow and protect itself from stresses caused by adverse environmental conditions

**[BARCODE]**

XX.XXXX ProAct US H&G