



U.S. ENVIRONMENTAL PROTECTION AGENCY
 Office of Pesticide Programs
 Biopesticides and Pollution Prevention Division (7511M)
 1200 Pennsylvania Ave., N.W.
 Washington, D.C. 20460

EPA Reg. Number:

71771-16

Date of Issuance:

2/19/2026

NOTICE OF PESTICIDE:

Registration
 Reregistration
 (under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

PHC 68949

Name and Address of Registrant (include ZIP Code):

PI AgSciences, Inc.
 12140 Woodcrest Executive Drive, Suite 245
 St. Louis, MO 63141

Note: Changes in labeling differing in substance from those accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence regarding this product, always refer to the above EPA Registration Number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the U.S. Environmental Protection Agency. In order to protect health and the environment, the Administrator, on his or her motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under the Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration or registration review of your product when EPA requires all registrants of similar products to submit such data.

Signature of Approving Official:

Digitally signed by ALAN REYNOLDS
 Date: 2026.02.19 13:52:07 -05'00' for

Mike Mendelsohn, Chief
 Emerging Technologies Branch
 Biopesticides and Pollution Prevention Division (7511M)
 Office of Pesticide Programs

Date:

2/19/2026

2. Make the following labeling change before you release this product for shipment:
 - Revise EPA Registration Number to read, "EPA Reg. No. 71771-16."
3. Submit one (1) copy of the final printed labeling for the record before you release this product for shipment.
4. PI AgSciences, Inc. has agreed to and must comply with the following term of registration with respect to endangered species mitigation:

If EPA finds that mitigation measures are necessary to address potential future effects to any listed endangered or threatened species or their designated critical habitat, EPA will notify PI AgSciences, Inc. in writing within 45 calendar days of any such determination of any necessary required changes. Within 30 calendar days of receiving EPA's notice, PI AgSciences, Inc. must submit an amendment application incorporating any required changes, including amended labels. Alternatively, PI AgSciences, Inc. may respond by submitting a request for voluntary cancellation of this product. If PI AgSciences, Inc. fails to comply with this registration term, PI AgSciences, Inc. has agreed in prior written acceptance of these terms that EPA may cancel the registration under an expedited process under FIFRA section 6(e).

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6. A stamped copy of the labeling is enclosed for your records. Please also note that the record for this product currently contains the following acceptable Confidential Statements of Formula (CSFs):

- Basic CSF dated 12/18/2025
- Alternate CSF #1 dated 12/18/2025

If you have any questions, please contact Mary Beth Claude by phone at (202) 566-1460 or via email at claude.marybeth@epa.gov.

Sincerely,

 Digitally signed by
ALAN REYNOLDS
Date: 2026.02.19
13:52:47 -05'00' for

Mike Mendelsohn, Chief
Emerging Technologies Branch
Biopesticides and Pollution
Prevention Division (7511M)
Office of Pesticide Programs

Enclosure

PHC 68949 Master Label Index

Section A:..... Agricultural & Commercial Uses
Section B:..... Commercial Seed Treatment
Section C: Pre-Plant Seed Treatment
Section D:....Bulk Product – For Re-packaging or Formulating Use Only

Section A. Agricultural & Commercial Uses

PHC 68949

[Alternate Brand Names: TEIKKO, SHANEMA, ATALIOL, AMPARROW]

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

[OPTIONAL TAG LINES – For use individually or in combination on labels: Is especially formulated for use on a wide range of agricultural crops to: provide protection against crop yield loss and decreased harvest quality from damage caused by plant-parasitic nematodes: Enhance resistance of treated crops to nematode damage through activating plant's natural defense against nematode feeding and egg hatching; Improve stand establishment; Improve standability; Increase plant stamina and vigor; Plant Health Promoter; Regulates genes involved in drought tolerance pathways, stimulates plant secondary metabolites that directly inhibit nematode egg hatching, Enhances crop growth, quality, and yield; Enhances growth; Yield enhancer]

Wettable Dry Granule

ACTIVE INGREDIENT:

PDHP 68949 1.0%

OTHER INGREDIENTS:99.0%

Total:100.0%

EPA Reg. No. 71771-XX

EPA Est. No. _____

KEEP OUT OF REACH OF CHILDREN

**CAUTION
PRECAUCIÓN**

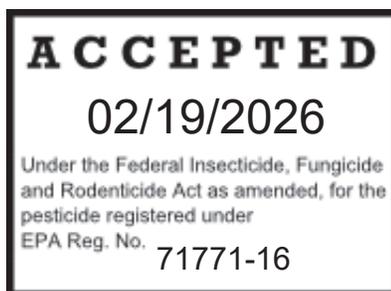
(See [(side)(back)] panel for additional precautionary statements and first aid.).

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.)

PI AgSciences, Inc.
12140 Woodcrest Executive Drive, Suite 245
St. Louis, MO 63141
1-800-421-9051
www.planthealthcare.com

[Lot] [Batch] [No.] [Code]: _____
(Note to reviewer: Lot/batch number may be placed on the label or printed directly onto product packaging/container.)
NET WEIGHT: _____

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. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Wear long sleeves, long pants, shoes and socks, and waterproof gloves.

FIRST AID	
If Inhaled:	<ul style="list-style-type: none">▪ 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.
If on skin or clothing	<ul style="list-style-type: none">▪ Take off contaminated clothing.▪ Rinse skin immediately with plenty of water for 15-20 minutes.▪ Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">▪ Hold eye open and rinse slowly and gently with water for 15-20 minutes.▪ Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.▪ Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For 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.
- Waterproof gloves.
- A NIOSH approved particulate respirator with any N, R, or P filter with NIOSH approval number prefix TC-84A; or a NIOSH approved powered air-purifying respirator with HE filter with NIOSH approval number prefix TC-21C. Repeated exposures to high concentrations of microbial proteins can cause allergic sensitization.

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), restricted-entry interval and notification to workers. 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.

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.

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

PHC 68949 is effective against plant-parasitic nematodes. This product is a wettable dry granule to be diluted with water. Shake well before use. When a rate range is given for a specific crop, use the higher listed rate when conditions favor higher pest pressure. PHC 68949 is a plant response-elicitor peptide based on a naturally occurring harpin protein. PHC 68949 reduces the incidence and severity of plant nematode damage by eliciting the plant's own natural defense system, referred to as systemic acquired resistance (SAR). Early applications of PHC 68949 prior to nematode infestation either alone or in combination with another registered nematicide can delay or reduce nematode damage and severity. PHC 68949 is most effective when combined with nematicide programs having alternative modes of action. The plant's enhanced defense response system due to the application of PHC 68949 adds to nematicide programs, leading to improved overall nematode control.

[ALTERNATE TEXT: PHC 68949 stimulates the plant's natural growth and defense systems, enhancing overall plant health.] [ALTERNATE TEXT: PHC 68949 stimulates the natural growth and defense systems of crops, enhancing overall plant health.] [ALTERNATE TEXT: Healthier plants exhibit increased plant tolerance to stress and vigor, leading to one or more of the following benefits: increased plant growth, improved stand, and increased marketable yield.]

[ALTERNATE TEXT: PHC 68949 is a tool for use in Integrated Crop Management (ICM).] [ALTERNATE TEXT: It has no direct killing effect on nematodes. Product efficacy and protection against damage from plant parasitic nematodes is based on its ability to activate the plant's own internal defense and growth mechanisms. PHC 68949 works best when used in conjunction with good crop management practices.]

GROWTH ENHANCEMENT AND MARKETABLE YIELD

Use PHC 68949 to enhance plant growth and quality and increase plant health and vigor to assist in the management of certain nematode species and to enhance crop quality and marketable yield.

SITES

Use PHC 68949 for greenhouse, shadehouses, nursery, and field production of all plants listed on this label.

COVERAGE

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

DAYS TO HARVEST

PHC 68949 can be applied up to the day of harvest.

RESISTANCE MANAGEMENT RECOMMENDATIONS

Nematode Pressure and Management

A variety of nematode population pressures can exist in field conditions. The visible efficacy of a single product will depend upon the effectiveness of the product and the level of nematode population. Under extremely high nematode pressure no single product will provide high-level nematode control, and in these circumstances a range of nematode management measures should be undertaken by the grower to reduce the nematode pressure, such as use of rotations, fallow periods, resistant or tolerant varieties, application of additional chemical and biological nematode control agents.

Integrated Nematode Management: Consider the following recommended management practices to sustainably control or suppress plant-parasitic nematode populations:

- Take soil samples regularly to determine the plant-parasitic nematode species present and population density from the previous crop.
- Consider using nematode resistant or tolerant crop varieties.
- Consider cultural methods to reduce nematode populations, e.g., fallow periods, rotations, or soil amendments.
- Consider a combination of effective products in a nematode management program – pre-planting and in the crop, e.g., approved fumigants, nematicides, and other products that protect crop roots. This may be critical under high pest pressure situations where no single product may provide sufficient control.
- To minimize the possibility of nematode resistance from occurring, avoid long-term repeated applications of the same product or group of compounds in the same field. If any reduction in product performance is noted, it is important to contact the local company representative.
- Monitor treated nematode populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and / or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance contact PI AgSciences at <https://www.planthealthcare.com/>. You can also contact your pesticide distributor or university extension specialist to report nematode resistance.

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: PHC 68949 is believed to be compatible with most other labeled pesticides, such as post-emergence herbicides, insecticides, acaricides, fungicides and nematicides, 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 PHC 68949 with any other approved pesticide, always read and follow all use directions, restrictions, and precautions of both PHC 68949 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 PHC 68949 cannot be put in the tank first, before adding it to the tank, slurry the PHC 68949 in a small amount of clean water and add the slurry to the tank.]

Glyphosate Herbicides: When tank mixing PHC 68949 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 PHC 68949 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.

[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 PHC 68949, then first dissolve PHC 68949 in an appropriate volume of “clean water” such as municipal tap water. Pour the dissolved PHC 68949 solution into the dilution water for the spray (see step 1 of “Mixing Instructions”).]

[OPTIONAL TEXT: DILUTION WATER QUANTITY

If 1 ounce of PHC 68949 is diluted in more than 35 gallons of chlorinated water (e.g., municipal water), add a labeled water treatment product such as sodium sulfite, sodium bisulfite, or sodium metabisulfite to remove excess chlorine before adding PHC 68949. Consult your PI AgSciences representative if you need further directions on water treatment.]

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.

AERIAL APPLICATIONS:

- **DO NOT** release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must not exceed 65% of the wingspan for fixed wing aircraft or 75% of the rotor diameter for helicopters. Otherwise, the boom length must not exceed 75% of the wingspan for fixed wing aircraft or 90% of the rotor diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- **DO NOT** apply during temperature inversions.

AIRBLAST APPLICATIONS:

- Sprays must be directed into the canopy.
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- User must turn off outward pointing nozzles at the row end and when spraying the outer row.
- **DO NOT** apply during temperature inversions.

GROUND BOOM APPLICATIONS:

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

BOOMLESS GROUND APPLICATIONS:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

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 PHC 68949 is diluted in more than 35 gallons of chlorinated water, add a labeled dechlorination water treatment product (such as sodium sulfite, sodium bisulfite, or sodium metabisulfite) and continue gentle agitation (see Use Precautions on “Dilution Water Quantity”).]
- Step 3.** [OPTIONAL TEXT: If dilution water quality is suspect, dissolve PHC 68949 in clean water before adding to the mix tank (see Use Precautions on “Dilution Water Quality”).] Add the required amount of PHC 68949. 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 PHC 68949 as a pre-transplant foliar dip, root dip, or as a foliar application. [ALTERNATE TEXT: Apply PHC 68949 as a pre-transplant root dip or as a foliar application.]

Pre-Plant Dip: Apply PHC 68949 as a pre-plant foliar dip or root dip to vegetable crops (e.g., cucurbit and cole vegetables), ornamentals, tobacco, and small fruit crops at the rate of 0.5 – 3 oz per 100 gallons of water immediately prior to transplanting. [ALTERNATE TEXT: Apply PHC 68949 as a pre-plant foliar dip or root dip to bare root ornamentals at the rate of 0.5– 3 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 PHC 68949 as specified in the tables that follow. [ALTERNATE TEXT: For continued plant management, follow with foliar applications of PHC 68949 as specified in the sections that follow.]

Foliar Application: Apply PHC 68949 as a greenhouse or field application using conventional ground or aerial equipment. Use PHC 68949 to enhance plant growth and vigor, to increase marketable production, or as part of an integrated pest management (IPM) program to assist nematode management.

[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 0.5 - 3 oz of PHC 68949 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 0.5 - 3 oz of PHC 68949 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 (such as sodium sulfite, sodium bisulfite, or sodium metabisulfite) with water before adding PHC 68949.]

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 decide upon application rates and timing. Follow applicable specifications for your crop.

GREENHOUSE AND TRANSPLANT APPLICATIONS

Use Site & Crop	Rate	Timing
Greenhouse: Any Crop Listed Elsewhere on This Label	0.5 – 3 oz per 100 gal water	Apply overhead applications after seedling emergence. Repeat every 14 – 21 days.
Transplant: Any Crop Listed Elsewhere on This Label	0.5 – 3 oz per 100 gal water	Apply 5 – 7 days before transplanting. Can also be applied as a plant drench at transplanting.

FOOD CROP RECOMMENDATIONS

ARTICHOKE (GLOBE)			
NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Root Lesion (<i>Pratylenchus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Apply as a foliar spray at 14-28-day intervals, beginning at new growth. [ALTERNATE TEXT: Begin applications at first new growth and repeat at 14-28 day intervals in combination with nematicide programs.]

AVOCADO			
NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Root Lesion (<i>Pratylenchus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Apply as a foliar spray at 14-28-day intervals, beginning at new growth. [ALTERNATE TEXT: Begin applications at first new growth and repeat at 14-28 day intervals in combination with nematicide programs.]

BERRIES AND SMALL FRUITS (Crop Groups 13 and 13-07)
Including, but not limited to, Amur river grape; Aronia berry; Bayberry; Bearberry; Bilberry; Blackberry (including bingleberry, black satin berry, boysenberry, Cherokee blackberry, Chesterberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, Dirkson thornless berry, Himalayaberry, hullberry, Lavacaberry, loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, nectaberry, olallaberry, Oregon evergreen berry, phenomenal berry, rangeberry, ravenberry, rossberry, Shawnee blackberry, youngberry, and varieties and/or hybrids of these); Blueberry; Buffalo currant, Buffaloberry; Che; Chilean guava; Chokecherry; Cloudberry; Cranberry; Currant (black and red); Elderberry; European barberry; Gooseberry; Highbush cranberry; Huckleberry; Jostaberry; Juneberry; Kiwifruit

(fuzzy and hardy); Lingonberry; Maypop; Mulberry; Muntries; Partridgeberry; Phalsa; Pincherry; Raspberry (black and red); Riberry; Salal; Schisandra berry; Sea buckthorn; Serviceberry; Strawberry; and cultivars, varieties and/or hybrids of these.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Burrowing (<i>Radopholus</i> spp.) Dagger (<i>Xiphinema</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Needle (<i>Longidorus</i> spp.) Pin (<i>Paratylenchus</i> spp.) Ring (<i>Mesocriconema</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Sheath (<i>Hemicyclophora</i> spp.) Sting (<i>Belonolaimus</i> spp.) Stubby Root (<i>Paratrichodorus</i> and <i>Trichodorus</i> spp.)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Apply at 14- 28 day intervals beginning early in the season on new growth. [ALTERNATE TEXT: Begin applications when plants are established when new foliage is present. Repeat at 14- to 28-day intervals as needed in combination with nematicide programs.]

BRASSICA (COLE) LEAFY VEGETABLES (Crop Group 5)

Including, but not limited to, Broccoli (all types); Brussels sprouts; Cabbage (all types); Cauliflower; Cavalo broccoli; Collards; Kale; Kohlrabi; Mizuna; Mustard greens; Mustard spinach and Rape greens.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Awl (<i>Dolichodorus</i> spp.) Cabbage Cyst (<i>Heterodera</i> spp.) Stubby-root (<i>Paratrichodorus</i> spp.) Sting (<i>Belonolaimus</i> spp.) Sugar beet Cyst (<i>Heterodera</i> spp.) Root-knot (<i>Meloidogyne</i> spp.)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Begin applications at first new growth and repeat at 14-28 day intervals. [ALTERNATE TEXT: Begin applications at first new growth and repeat at 14-28 day intervals in combination with nematicide programs.]

BULB VEGETABLES (Crop Group 3)

Including Garlic; Leek; Onion (dry bulb and green); Onion (Welch); and Shallot; Cavalo broccoli; Collards; Kale; Kohlrabi; Mizuna; Mustard greens; Mustard spinach and Rape greens.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Needle (<i>Longidorus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Stubby root (<i>Paratrichodorus</i> spp.)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Begin applications at first new growth and repeat at 14-28 day intervals. [ALTERNATE TEXT: Begin applications at first new growth and repeat at 14-28 day intervals in combination with nematicide programs.]

CEREAL GRAINS (Crop Group 15) and

FORAGE, FODDER AND STRAW OF CEREAL GRAINS (Crop Group 16)

Including, but not limited to, Barley; Buckwheat; Corn; Millet, Pearl; Millet, Proso; Oats; Popcorn; Rice; Rye; Sorghum (milo); Teosinte; Triticale; Wheat; and Wild rice.

NEMATODE

CORN: (Grain, Silage, Seed, or Pop)	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
<i>Awl (Dolichodorus spp.)</i> <i>Dagger (Xiphinema spp.)</i> <i>Lance (Hoplolaimus spp.)</i> <i>Lesion (Pratylenchus spp.)</i> <i>Needle (Longidorus spp.)</i> <i>Ring (Criconemella spp.)</i> <i>Sheath (Hemicycliophora spp.)</i> <i>Spiral (Helicotylenchus spp.)</i> <i>Sting (Belonolaimus spp.)</i> <i>Stubby-root (Paratrichodorus spp.)</i> <i>Stunt (Tylenchorhynchus spp.)</i>	0.5 - 3	5 – 200 by ground. 2 – 50 by air.	Apply beginning early in the season at V-2 to V-6 stage, [ALTERNATE TEXT: Begin foliar applications 5-7 days prior to disease infection in a tank mix or rotation with nematicide for enhanced nematode control and yield increase. Can also be applied in a tank mix with the first post-emergent herbicide.]

ALL OTHER CEREAL GRAINS

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
<i>Cereal Cyst (Heterodera spp.)</i> <i>Root Lesion (Pratylenchus spp.)</i> <i>Root-knot (Meloidogyne spp.)</i> <i>Stunt (Tylenchorhynchus spp.)</i>	0.5 – 3	5 – 200 by ground. 2 – 50 by air.	Apply early at 3 -5 leaf and every 14 –35 days or in combination with nematicide programs [ALTERNATE TEXT: Apply beginning at new growth in the spring every 14 –35 days or in combination with nematicide for enhanced nematode control and yield increase. Can also be applied in a tank mix with the first post-emergent herbicide.]

CITRUS (Crop Group 10)

Including, but not limited to, Australian lime (Desert, Finger, Round); Brown river finger lime; Calamondin; Citron; Citrus hybrids; Grapefruit; Japanese summer grapefruit; Kumquat; Lemon; Mediterranean mandarin; Mount white lime; New Guinea wild lime; Orange, sour; Orange, sweet; Pummelo; Russell river lime; Satsuma mandarin; Sweet lime; Tachibana orange; Tahiti lime; Tangelo; Tangerine; Tangor; Trifoliate orange; Uniq fruit; and cultivars, varieties and/or hybrids of these.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
<i>Burrowing (Radopholus spp.)</i> <i>Citrus (Tylenchulus spp.)</i> <i>Dagger (Xiphinema spp.)</i> <i>Root-knot (Meloidogyne spp.)</i> <i>Sheath (Hemicycliophora spp.)</i> <i>Sting (Belonolaimus spp.)</i> <i>Stunt (Tylenchorhynchus spp.)</i>	1 – 3	10 – 200 by ground. 2 – 50 by air.	Apply on a 14 to 35-day schedule beginning at First Leaf Flush. For tree establishment – Apply on 14-35 day schedule beginning at early new growth. [ALTERNATE TEXT: Begin applications at first new growth and repeat at 14-35 day intervals repeat at 14-35 day intervals in combination with nematicide programs.]

COFFEE

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
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Coffee Lesion (<i>Pratylenchus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Apply as a foliar spray at 14-28-day intervals, beginning at new growth. [ALTERNATE TEXT: Begin applications at first new growth and repeat at 14-28 day intervals in combination with nematicide programs.]
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CURCURBIT VEGETABLES (Crop Group 9)

Including, but not limited to, Cantaloupe; Chayote; Chinese Waxgourd; Citron Melon; Cucumber; Gherkin; Gourd, Edible; Momordica (Includes Balsam Apple, Balsam Pear, Bitter Melon, Chinese Cucumber); Muskmelon (Includes True Cantaloupe, Cantaloupe; Casaba, Crenshaw Melon, Golden Pershaw Melon, Honeydew Melon, Honey Balls, Mango Melon, Persian Melon, Pineapple Melon, Santa Claus Melon, and Snake Melon); Pumpkin; Squash, Summer (Includes Crookneck, Scallop, Straightneck, and Vegetable Marrow, and Zucchini); Squash, Winter (Includes Acorn Squash, Butternut Squash, Calabaza, Hubbard Squash, and Spaghetti Squash); and Watermelon.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Needle (<i>Longidorus</i> spp.) Root Lesion (<i>Meloidogyne</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Sting (<i>Belonolaimus</i> spp.) Stubby-root (<i>Trichodorus</i> and <i>Paratrichodorus</i> spp.)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Apply at 14- to 28-day intervals, beginning at new growth or early emergence. [ALTERNATE TEXT: Begin applications at first new growth and repeat at 14-28 day intervals in combination with nematicide programs.]

FRUITING VEGETABLES (Crop Group 8, Except Cucurbits)

Including Eggplant; Ground Cherry; Pepino; Pepper (Bell, Chill, Cooking, Pimento, Sweet); Tomatillo; and Tomato.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Awl (<i>Dolichodorus</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Stubby-root (<i>Paratrichadorus</i> spp.), Sting (<i>Belonolaimus</i> spp.)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Begin applications at early emergence or first new growth and repeat at 14-28 day intervals. [ALTERNATE TEXT: Begin applications at early emergence or first new growth and repeat at 14-28 day intervals in combination with nematicide programs.]

GRAPE

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Citrus (<i>Tylenchulus</i> spp.) Dagger (<i>Xiphinema</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Pin (<i>Paratylenchus</i> spp.) Needle (<i>Longidorus</i> spp.) Ring (<i>Mesocriconema</i> spp., <i>Criconemoides</i> spp., <i>Criconemella</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Sheath (<i>Hemicriconemoides</i> spp.)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Apply at pre-bloom, post bloom, berry touch and veraison Under moderate to heavy disease pressure, alternate or tank mixing with other products. [Alternate text: Begin foliar applications at 14- to 35-day intervals, beginning at 3 to 6 inch shoot prior to nematode infection in a tank-mix with nematicides or in intervals in combination with nematicide programs for enhanced nematode control and yield increase.]

Stubby-root (<i>Trichodorus</i> and <i>Paratrichodorus</i> spp.) Stunt (<i>Tylenchorhynchus</i> spp.)			
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HERBS AND SPICES (Crop Group 19)

Including, but not limited to, Allspice; Angelica; Anise; Basil; Chamomile; Caraway; Cardamom; Catnip; Celery Seed; Chive; Cinnamon; Cloves; Cocoa; Coriander; Cilantro; Cumin; Curry; Dill; Fennel; Horehound; Lavender; Lemongrass; Marjoram; Mint; Mustard; Nutmeg; Parsley (all types); Pepper; Poppy Seed; Rosemary; Saffron; Sage; Savory; Tarragon; Thyme; Vanilla; and Wintergreen.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Root-knot (<i>Meloidogyne</i> spp.)	0.5 – 3	10 – 200 by ground. 2 – 50 by air.	Begin applications at early emergence or first new growth and repeat at 14-28 day intervals. [ALTERNATE TEXT: Begin applications at early emergence or first new growth and repeat at 14-28 day intervals in combination with nematode programs.]

HOPS

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Root-knot (<i>Meloidogyne</i> spp.)	0.5 – 3	10 – 200 by ground. 2 – 50 by air.	Begin applications at first new growth and repeat at 14-28 day intervals. [ALTERNATE TEXT: Begin applications at first new growth and repeat at 14-28 day intervals in combination with nematode programs.]

LEAFY VEGETABLES – EXCEPT BRASSICA VEGETABLES (Crop Group 4)

Including, but not limited to, Amaranth, Leafy, Chinese Spinach; Arugula; Cardoon; Celery; Celery, Chinese; Celtuce; Chervil; Chrysanthemum, Edible-Leaved, Garland; Corn Salad; Cress, Garland, Upland; Dandelion; Dock (Sorrel); Endive; Fennel, Florence; Lettuce, Head and Lettuce; Orach; Parsley; Purslane, Garden, Winter; Radicchio (Red Chicory); Rhubarb; Spinach; Spinach, New Zealand and Vine; and Swiss Chard.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Awl (<i>Dolichodorus</i> spp.) Lesion (<i>Pratylenchus</i> spp.) Needle (<i>Longidorus</i> spp.) Pin (<i>Paratylenchus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Spiral (<i>Rotylenchus</i> spp.) Stunt (<i>Tylenchorhynchus</i> and <i>Merlinius</i> spp.)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Begin applications at early emergence or first new growth and repeat at 14-28 day intervals. [ALTERNATE TEXT: Begin applications at early emergence or first new growth and repeat at 14-28 day intervals in combination with nematode programs.]

LEGUME VEGETABLES – SUCCULENT OR DRIED (Crop Group 6)

Including, but not limited to, Bean (Includes Grain Lupin, Sweet Lupin, White Lupin, and White Sweet Lupin); Bean (Includes Field, Kidney, Lima, Navy, Pinto, Runner, Snap, Tepary, and Wax); Bean (Includes Adzuki bean, Asparagus Bean, Blackeyed Pea, Catjang, Chinese Longbean, Cowpea, Crowder Pea, Moth Bean, Mung Bean, Rice Bean, Southern Pea, Urd Bean, and Yardlong Bean); Broad Bean; Chickpea (Garbanzo Bean); Guar; Jackbean; Lablab Bean; Lentil; Pea (Includes Dwarf Pea, Edible-Pod Pea, English Pea, Field Pea, Garden-Pea, Green Pea, Snow Pea, and Sugar Snap Pea); Pigeon Pea; Soybean; Soybean (immature seed); and Sword Bean.

NEMATODE

SOYBEAN	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Awl (<i>Dolichodorus</i> spp.) Lance (<i>Hoplolaimus</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.), Soybean Cyst (<i>Heterodera</i> spp.) Stunt (<i>Tylenchorhynchus</i> spp.)	0.5 – 3	10 – 200 by ground. 2 – 50 by air.	Begin applications at VC to V6 or prior to nematode infestation, whichever is earlier. [ALTERNATE TEXT: Begin foliar applications in a tank mix or rotation with nematicides for enhanced nematode control and yield increase. Can also be applied in a tank mix with the first post-emergent herbicide.]

ALL OTHER LEGUMES

Root Lesion (<i>Pratylenchus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Reniform (<i>Rotylenchulus</i> spp.) Stem / Bulb (<i>Ditylenchus</i> spp.)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Begin applications at early emergence or first new growth and repeat at 14-28 day intervals. [ALTERNATE TEXT: Begin applications at early emergence or first new growth and repeat at 14-28 day intervals in combination with nematicide programs.]
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NON-GRASS ANIMAL FEEDS – FORAGE, FODDER, STRAW AND HAY (Crop Group 18)

Including, but not limited to, Alfalfa; Bean, Velvet; Clover; Kudzu; Lespedeza; Lupin; Sainfoin; Trefoil; Vetch; Vetch, Crown, Vetch, Milk.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Clover-cyst (<i>Heterodera</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.)	0.5 – 3	10 – 200 by ground. 2 – 50 by air.	Begin applications at early emergence or first new growth and repeat at 14-35 day intervals. [ALTERNATE TEXT: Begin applications at early emergence or first new growth and repeat at 14-35 day intervals in combination with nematicide programs.]

OILSEED (Crop Group 20)

Including, but not limited to, Cottonseed; Flax Seed; Jojoba; Milkweed; Mustard Seed; Niger Seed; Poppy Seed; Rapeseed (canola varieties only); Safflower; Sesame; Sunflower.

NEMATODE

COTTON

<p>Awl (<i>Dolichodorus</i> spp.) Lance (<i>Hoplolaimus</i> spp.) Reniform (<i>Rotylenchulus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.)</p>	0.5 – 3	<p>10 – 200 by ground. 2 – 50 by air.</p>	<p>Apply beginning early season prior to nematode infestation. For suppression of nematodes, begin applications prior to infestation and repeat at 14-35 day intervals. [ALTERNATE TEXT: For suppression of nematodes, begin applications prior to infestation and repeat at 14-35 day intervals in combination with nematicide programs.]</p>
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SUNFLOWER

<p>Potato Cyst (<i>Globodera</i> spp.) Reniform (<i>Rotylenchulus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.)</p>	0.5 – 3	<p>10 – 200 by ground. 2 – 50 by air.</p>	<p>Apply the first application between stage VC to V4 and repeat when the terminal bud forms (R1 stage). [ALTERNATE TEXT: Apply the first application between stage V-6 to V-8 and repeat when the terminal bud forms (R1 stage). All applications can be in combination with nematicide programs]</p>
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ALL OTHER OILSEEDS

<p>Root-knot (<i>Meloidogyne</i> spp.)</p>	0.5 – 3	<p>10 – 200 by ground. 2 – 50 by air.</p>	<p>Begin applications at early emergence or first new growth and repeat at 14-28 day intervals. [ALTERNATE TEXT: Begin applications at first new growth and repeat at 14-28 day intervals in combination with nematicide programs.]</p>
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PEANUT

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
<p>Peanut Root Knot (<i>Meloidogyne</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Sting (<i>Belonolaimus</i> spp.)</p>	1 – 3	<p>10 – 200 by ground. 2 – 50 by air.</p>	<p>Apply as a foliar spray at 14-35 day intervals, beginning at early emergence or first new growth. [ALTERNATE TEXT: Begin applications at early emergence or first new growth and repeat at 14-35 day intervals in combination with nematicide programs.]</p>

POME FRUIT (Crop Group 11) (Bearing and Non-Bearing)
Including, but not limited to, Apple; Azarole; Crabapple; Loquat; Mayhaw; Hook & Arm; Medlar; Pear; Pear, Asian; Quince; Quince, Chinese and Japanese; Tejocote; and Cultivars, Varieties, and/or Hybrids of these.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
<p>Dagger (<i>Xiphinema</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.)</p>	1 – 3	<p>10 – 200 by ground. 2 – 50 by air.</p>	<p>Apply beginning at first new growth and every 14 - 35 days thereafter. [ALTERNATE TEXT: Apply at 14- to 35-day intervals, beginning before bloom initiation in combination with nematicide programs.]</p>

POTATO (Including Seed Production)

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
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<p>Awl (<i>Dolichodorus</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Potato Cyst (<i>Globodera</i> spp.) Spiral (<i>Helicotylenchus</i> spp.) Sheath (<i>Hemicycliophora</i> spp.) Sting (<i>Belonolaimus</i> spp.) Stubby-root (<i>Trichodorus</i> spp. and <i>Paratrichodorus</i> spp.) Stunt (<i>Tylenchorhyncus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.)</p>	1 – 3	10 – 200 by ground. 2 – 50 by air.	Apply at early emergence prior to nematode infestation. Repeat applications as needed every 14-28 days. [ALTERNATE TEXT: Apply prior to nematode infestation. Repeat applications as needed every 14-28 days in combination with nematicide programs.]
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ROOT AND TUBER VEGETABLES (Crop Group 1)

Including, but not limited to, Arracacha; Arrowroot; Artichoke, Chinese and Jerusalem; Beet, Garden and Sugar; Burdock, Edible; Canna, Edible; Carrot; Cassava, Bitter and Sweet; Celeriac (Celery Root); Chayote (Root); Chervil, Turnip-Rooted; Chicory; Chufa; Dasheen (Taro); Ginger; Ginseng; Horseradish; Leren; Parsley, Turnip-Rooted; Parsnip; Radish; Radish, Oriental; Rutabaga; Salsify; Salsify, Black and Spanish; Skirret; Sweet Potato; Tanier; Turmeric; Turnip; Yam (all types).

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
<p>Awl (<i>Dolichodorus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Needle (<i>Longidorus</i> spp.) Pin (<i>Paratylenchus</i> spp.) Reniform (<i>Rotylenchulus</i> spp.) Sting (<i>Belonolaimus</i> spp.) Stubby-root (<i>Trichodorus</i> spp. and <i>Paratrichodorus</i> spp.) Sugar Beet Cyst (<i>Heterodera</i> spp.)</p>	1 – 3	10 – 200 by ground. 2 – 50 by air.	Apply at early emergence prior to nematode infestation, then repeat applications every 14-28 days in combination with the normal nematicide program. [ALTERNATE TEXT: Apply at early emergence during vegetative growth phase in combination with nematicide programs.]

STONE FRUIT (Crop Group 12)

Including, but not limited to, Apricot; Apricot, Japanese; Capulin; Cherry (Black, Nanking, Sweet, and Tart); Jujube, Chinese; Nectarine; Peach; Plum (American, Beach, Canada, Cherry, Chickasaw, Damson, Japanese, Klamath, and Prune); Plumcot; Sloe; Cultivars, Varieties, and/or Hybrids of these.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
<p>Dagger (<i>Xiphinema</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Pin (<i>Paratylenchus</i> spp.) Ring (<i>Mesocriconema</i> spp., <i>Criconemoides</i> spp., <i>Criconemella</i> spp.) Root-Knot (<i>Meloidogyne</i> spp.)</p>	1 – 3	10 – 200 by ground. 2 – 50 by air.	Apply beginning early season when new growth is present. Follow with post-bloom sprays at 14-35 day intervals. [ALTERNATE TEXT: Apply at 14-35 day intervals, beginning when new foliage is present in combination with nematicide programs.]

SUGARCANE

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Lance (<i>Hoplolaimus</i> spp.) Ring (<i>Mesocriconema</i> spp., <i>Criconemoides</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Reniform (<i>Rotylenchulus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Spiral (<i>Helicotylenchus</i> spp. and <i>Rotylenchus</i> spp.) Sting (<i>Belonolaimus</i> spp.) Stubby-root (<i>Paratrichodorus</i> and <i>Trichodorus</i> spp.) Stunt (<i>Tylenchorhynchus</i> spp.)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Apply after new growth commences. Repeat at 14- to 35-day intervals as needed in combination with nematicide programs. [ALTERNATE TEXT: Apply at in-furrow over seed cane stalks or pieces and ensure coverage of all buds.]

TOBACCO – All Types			
NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Root-knot (<i>Meloidogyne</i> spp.) Stunt (<i>Tylenchorhynchus</i> spp.) Tobacco Cyst (<i>Globodera</i> spp.)	0.5 – 3	10 – 200 by ground. 2 – 50 by air.	Apply at 14- 35 day intervals, beginning at new growth or 7 days after transplanting through harvest. [ALTERNATE TEXT: Begin applications when plants are established. Repeat at 14 -35 -day intervals as needed in combination with nematicide programs.]

TREE NUTS (Crop Group 14)			
Including, but not limited to, African Nut-Tree; Almond; Beechnut; Brazil Nut; Brazilian Pine; Bunya; Bur Oak; Butternut; Cajou Nut; Candlenut; Cashew; Chestnut; Chinquapin; Coquito Nut; Dika Nut; Ginkgo; Guiana Chestnut; Hazelnut (Filbert); Heartnut; Hickory Nut; Japanese Horse-Chestnut; Macadamia Nut; Mongongo Nut; Monkey-Pot; Monkey Puzzle Nut; Okari Nut; Pachira Nut; Peach Palm Nut; Pecan; Pequi; Pili Nut; Pine Nut; Pistachio; Sapucaia Nut; Tropical Almond; Walnut, Black; Walnut, English; Yellowhorn; Cultivars, Varieties, and/or Hybrids of these.			
NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Dagger (<i>Xiphinema</i> spp.) Pin (<i>Pratylenchus</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Ring (<i>Mesocriconema</i> spp., <i>Criconemoides</i> spp., <i>Criconemella</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Sting (<i>Belonolaimus</i> spp.)	1 – 3	10 – 200 by ground. 2 – 50 by air.	FOR ALMONDS Apply at pink bud, early leaf out, after pit hardening, hull split and post-harvest while leaves are still present. [Alternate text: Apply at 14- to 35-day intervals, beginning at pink bud in combination with nematicide programs.] FOR WALNUTS Apply at leaf out, after flowering, at shell and kernel development (approx. 30-45 days after flowering), 14-28 days after kernel development and post-harvest while leaves are still present. [Alternate text: Apply at 14- to 35-day intervals, beginning at leaf out in combination with nematicide programs.]

			<p>FOR OTHER TREE NUTS</p> <p>Apply at leaf out, after flowering, at shell and kernel development (approx. 30-45 days after flowering), 14-28 days after kernel development and post-harvest while leaves are still present. [Alternate text: Apply at 14- to 35-day intervals, beginning at leaf out in combination with nematicide programs.]</p>
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TROPICAL AND SUBTROPICAL FRUIT (Crop Groups 23 and 24)

Including, but not limited to, Acai; Acerola; Banana; Bayberry, Red; Breadnut; Carob; Cherimoya; Date; Feijoa; Fig; Gooseberry; Guava; Jujube, Indian; Lychee; Mango; Monkeyfruit; Olive; Papaya, Passionfruit; Persimmon; Pineapple; Plantain; Pomegranate; Prickly Pear; Starfruit; Tamarind; and Cultivars, Varieties, and Hybrids of these commodities.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Dagger (<i>Xiphenema</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Reniform (<i>Rotylenchulus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Begin applications at first new growth and repeat at 14-35 day intervals. [ALTERNATE TEXT: Begin applications at first new growth and repeat at 14-35 day intervals in combination with nematicide programs.]

MISCELLANEOUS COMMODITIES: FIGS

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Dagger (<i>Xiphenema</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Apply at 14-35 day intervals, beginning at new growth / new spring growth is initiated. [ALTERNATE TEXT: Begin applications at first new growth and repeat at 14-35 day intervals in combination with nematicide programs.]

NON FOOD CROP RECOMMENDATIONS

BEDDING PLANTS

Including, but not limited to, Ageratum, Algerian Ivy, Alyssum, Anthurium, Artemisia, Aster, Baby's Breath, Begonia, Caladium, Carnation, Chrysanthemum, Coleus, Columbine, Daisy, Delphinium, Easter Lily, English Ivy, Foxglove, Gaillardia, Geranium, Gloxinia, Impatiens, Marigold, Pansy, Petunia, Phlox, Pinks, Poinsettia, Primrose, Prostrate Rosemary, Salvia, Snapdragon, Verbena, Vinca, and Zinnia.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Awl (<i>Dolichodorus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Spiral (<i>Helicotylenchus</i> spp. and <i>Rotylenchus</i> spp)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Apply at 14 to 28-day intervals, beginning at new growth or 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 28 day intervals. [ALTERNATE TEXT: Begin applications when plants are established. Repeat at 14 to 28-day intervals as needed in combination with nematicide programs.]

CONIFERS AND TREES IN COMMERCIAL NURSERIES, PLANTATIONS, FORESTS, LANDSCAPES AND PARKS

Including, but not limited to, Christmas trees, Douglas fir, Oaks, Pines, Spruce.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Root-knot (<i>Meloidogyne</i> spp.)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Apply early season when new growth is present. [ALTERNATE TEXT: Begin applications when plants are established. Repeat at 14 24 to 35-day intervals as needed in combination with nematicide programs.]

GRASSES GROWN FOR SEED

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Ring (<i>Mesocriconema</i> spp., <i>Criconemoides</i> spp., <i>Criconemella</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Spiral (<i>Helicotylenchus</i> spp. and <i>Rotylenchus</i> spp) Sting (<i>Belonolaimus</i> spp.) Stubby-root (<i>Paratrichodorus</i> and <i>Trichodorus</i> spp.)	0.5 – 3	10 – 200 by ground. 2 – 50 by air.	Apply at 14 to 28 day intervals, beginning at early emergence in combination with nematicide programs.

GRASS FORAGE, FODDER, AND HAY (Crop Group 17)

Including, but not limited to bermuda grass, bluegrass and brome grass or fescue. Any grass, Gramineae family (either green or cured) except sugarcane and those included in the cereal grains group, that will be fed to or grazed by livestock, all pasture and range grasses and grasses grown for hay or silage.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Ring (<i>Mesocriconema</i> spp., <i>Criconemoides</i> spp., <i>Criconemella</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Spiral (<i>Helicotylenchus</i> spp. and <i>Rotylenchus</i> spp) Sting (<i>Belonolaimus</i> spp.) Stubby-root (<i>Paratrichodorus</i> and <i>Trichodorus</i> spp.)	0.5 – 3	10 – 200 by ground. 2 – 50 by air.	Begin applications at early emergence. Repeat at 14 to 28 day intervals in combination with nematicide programs.

ORNAMENTALS

Including, but not limited to, Aglaonema, Aphelandra, Arborvitae, Ash, Azaleas, Bougainvillea, Boxwood, Cattleya skinneri, Cedars, Ceanothus, Cotoneaster, Cissus, Dieffenbachia, Dogwood, Ferns, Ficus, Flowering Trees, Hibiscus, Hard Wood Trees, Holly, Home Lawns, Juniper, Magnolia Trees, Maple, Pines, Oaks, Palms, Peperomia, Photinia, Pittosporum, Philodendron, Pieris, Pothos, Redwoods, Rhododendron, Roses, Schefflera, Sedum, Sempervivum, Shrubs, Spathiphyllum, Sycamore, Taxus media, Zygocactus.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Root-knot (<i>Meloidogyne</i> spp.) Spiral (<i>Helicotylenchus</i> spp. and <i>Rotylenchus</i> spp)	1 – 3	10 – 200 by ground. 2 – 50 by air.	Apply at 14 to 28 day intervals, beginning at new growth or 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 28 day intervals. [ALTERNATE TEXT: Begin applications prior to first bloom. Repeat at 14 to 28-day intervals in combination with nematicide programs.]

TURF

Including, but not limited to, turf grasses on sod farms and lawns, commercial turf production, golf courses (including tees and greens), parks and commercial landscapes.

NEMATODE	RATE (Oz/Acre)	Dilution (Gal/Acre)	Timing
Awl (<i>Dolichodorus</i> spp.) Ring (<i>Mesocriconema</i> spp., <i>Criconemoides</i> spp., <i>Criconemella</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Spiral (<i>Helicotylenchus</i> spp. and <i>Rotylenchus</i> spp) Sting (<i>Belonolaimus</i> spp.) Stubby-root (<i>Paratrichodorus</i> and <i>Trichodorus</i> spp.)	0.5 – 3	10 – 200 by ground. 2 – 50 by air.	Begin applications at early emergence. Repeat at 14 - 28-day intervals in combination with nematicide programs.

FOLIAR NUTRIENT APPLICATIONS

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing and Use with Foliar Fertilizer
Any Crop Listed Elsewhere on This Label	1 – 3	5 – 200 by ground. 2 – 50 by air.	Apply with foliar fertilizer applications at a rate of 1 oz PHC 68949 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 [Note to reviewer: commercial packaging is non-refillable plastic bag.]

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 PI AgSciences, Inc. and the Buyer shall assume all such risks.

EXCLUSIVE WARRANTIES

PI AgSciences, 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 PI AgSciences, 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, PI AgSciences, 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 PI AgSciences, 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 PI AgSciences, 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 the risks inherent in the use of the product as set forth above. PI AgSciences, 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 PI AgSciences, Inc.

PROMPT NOTICE OF CLAIM

PI AgSciences, 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 PI AgSciences, 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.

© 2023 PI AgSciences, 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 PHC 68949 US Ag

PHC 68949®

[Alternate Brand Names: TEIKKO]

A Biochemical Pesticide for Seed Treatment that:

[OPTIONAL TAG LINES – For use individually or in combination on labels: A biochemical pesticide seed treatment for yield enhancement; Increases root mass, plant stamina and vigor; Enhances yield; Yield enhancer; Improves standability; Increases plant stamina and vigor; Plant Health Promoter; Activates plant growth and defense systems; Enhances plant’s resistance to nematode damage; Regulates genes involved in drought tolerance pathways, Induces Resistance against nematodes, Stimulates plant secondary metabolites that directly inhibit nematode egg hatching, Increases Root Mass; Enhances plant health; Facilitates Integrated Pest Management Programs.]

FOR USE ONLY BY COMMERCIAL SEED TREATMENT FACILITIES

Wettable Dry Granule

ACTIVE INGREDIENT:

PDHP 68949 1.0%

OTHER INGREDIENTS: 99.0%

Total: 100.0%

EPA Reg. No. 71771-XX
EPA Est. No. _____

KEEP OUT OF REACH OF CHILDREN

CAUTION

(See [(side)(back)] panel for additional precautionary statements and first aid.)

PI AgSciences, Inc.
12140 Woodcrest Executive Drive, Suite 245
St. Louis, MO 63141
1-800-421-9051
www.planthealthcare.com

[Lot] [Batch] [No.] [Code]: _____
(Note to reviewer: Lot/batch number may be placed on the label or printed directly onto product packaging/container.)
NET WEIGHT: _____

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. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Wear long sleeves, long pants, shoes and socks, and waterproof gloves.

FIRST AID	
If Inhaled:	<ul style="list-style-type: none"> ▪ 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.
If on skin or clothing	<ul style="list-style-type: none"> ▪ Take off contaminated clothing. ▪ Rinse skin immediately with plenty of water for 15-20 minutes. ▪ Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> ▪ Hold eye open and rinse slowly and gently with water for 15-20 minutes. ▪ Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. ▪ Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For 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.
- Waterproof gloves.
- A NIOSH approved particulate respirator with any N, R, or P filter with NIOSH approval number prefix TC-84A; or a NIOSH approved powered air-purifying respirator with HE filter with NIOSH approval number prefix TC-21C. Repeated exposures to high concentrations of microbial proteins can cause allergic sensitization.

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 AND IMPROVED PLANT IMMUNE SYSTEM

Use PHC 68949 to increase plant health and vigor, enhance the plant's resistance to plant nematode damage, regulates genes involved in drought tolerance pathways, stimulates plant secondary metabolites that directly inhibit nematode egg hatching, increase root mass and enhance crop quality and yield.

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. PHC 68949 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.

MIXING INSTRUCTIONS

Mix PHC 68949 as follows:

- Step 1.** Mix the required amount of PHC 68949 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 PHC 68949 commercial seed treatment to seed using application rates specified for the crops listed below. Mix PHC 68949 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 including use of required colorants and polymers to comply with additional regulations. Allow treated seeds to dry before bagging.

FOOD CROP RECOMMENDATIONS

BRASSICA (COLE) LEAFY VEGETABLES (Crop Group 5)	
Including, but not limited to, Broccoli (all types); Brussels sprouts; Cabbage (all types); Cauliflower; Cavalo broccoli; Collards; Kale; Kohlrabi; Mizuna; Mustard greens; Mustard spinach and Rape greens.	
NEMATODE	Rate (oz / 100 lb seed)
<i>Awl (Dolichodorus spp.)</i> <i>Cabbage Cyst (Heterodera spp.)</i> <i>Stubby-root (Paratrichodorus spp.)</i> <i>Sting (Belonolaimus spp.)</i> <i>Sugar Beet Cyst (Heterodera spp.)</i> <i>Root-knot (Meloidogyne spp.)</i>	0.1 – 5 oz

BULB VEGETABLES (Crop Group 3)	
Including Garlic; Leek; Onion (dry bulb and green); Onion (Welch); and Shallot; Cavalo broccoli; Collards; Kale; Kohlrabi; Mizuna; Mustard greens; Mustard spinach and Rape greens.	
NEMATODE	Rate (oz / 100 lb seed)
<i>Needle (Longidorus spp.)</i> <i>Root-knot (Meloidogyne spp.)</i> <i>Root Lesion (Pratylenchus spp.)</i> <i>Stubby-root (Paratrichodorus spp.)</i>	0.1 – 5 oz

CEREAL GRAINS (Crop Group 15) and FORAGE, FODDER AND STRAW OF CEREAL GRAINS (Crop Group 16)		
Including, but not limited to, Barley; Buckwheat; Corn; Millet, Pearl; Millet, Proso; Oats; Popcorn; Rice; Rye; Sorghum (milo); Teosinte; Triticale; Wheat; and Wild rice.		
NEMATODE		
FOR CORN: (Grain, Silage, Seed, or Pop)	RATE (µg/seed)	Product Rate (oz per 80,000 seeds)

Awl (<i>Dolichodorus</i> spp.) Dagger (<i>Xiphinema</i> spp.) Lance (<i>Hoplolaimus</i> spp.) Lesion (<i>Pratylenchus</i> spp.) Needle (<i>Longidorus</i> spp.) Ring (<i>Criconemella</i> spp.) Sheath (<i>Hemicycliophora</i> spp.) Spiral (<i>Helicotylenchus</i> spp.) Sting (<i>Belonolaimus</i> spp.) Stubby-root (<i>Paratrichodorus</i> spp.) Stunt (<i>Tylenchorynchus</i> spp.)	10 – 105	0.03 – 0.3
ALL OTHER CEREAL GRAINS	Rate (oz / 100 lb seed)	
Cereal Cyst (<i>Heterodera</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Stunt (<i>Tylenchorhynchus</i> spp.)	0.2 – 4 oz	

CURCUBIT VEGETABLES (Crop Group 9)		
Including, but not limited to, Cantaloupe; Chayote; Chinese Waxgourd; Citron Melon; Cucumber; Gherkin; Gourd, Edible; Momordica (Includes Balsam Apple, Balsam Pear, Bitter Melon, Chinese Cucumber); Muskmelon (Includes True Cantaloupe, Cantaloupe; Casaba, Crenshaw Melon, Golden Pershaw Melon, Honeydew Melon, Honey Balls, Mango Melon, Persian Melon, Pineapple Melon, Santa Claus Melon, and Snake Melon); Pumpkin; Squash, Summer (Includes Crookneck, Scallop, Straightneck, and Vegetable Marrow, and Zucchini); Squash, Winter (Includes Acorn Squash, Butternut Squash, Calabaza, Hubbard Squash, and Spaghetti Squash); and Watermelon.		
NEMATODE	Rate (oz / 100 lb seed)	
Needle (<i>Longidorus</i> spp.) Root Lesion (<i>Meloidogyne</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Sting (<i>Belonolaimus</i> spp.) Stubby-root (<i>Trichodorus</i> and <i>Paratrichodorus</i> spp.)	0.1 – 5 oz	

FRUITING VEGETABLES (Crop Group 8, Except Cucurbits)		
Including Eggplant; Ground Cherry; Pepino; Pepper (Bell, Chill, Cooking, Pimento, Sweet); Tomatillo; and Tomato.		
NEMATODE	Rate (oz / 100 lb seed)	
Awl (<i>Dolichodorus</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Stubby-root (<i>Paratrichodorus</i> spp.), Sting (<i>Belonolaimus</i> spp.)	0.1 – 5 oz	

LEAFY VEGETABLES – EXCEPT BRASSICA VEGETABLES (Crop Group 4)

Including, but not limited to, Amaranth, Leafy, Chinese Spinach; Arugula; Cardoon; Celery; Celery, Chinese; Celtuce; Chervil; Chrysanthemum, Edible-Leaved, Garland; Corn Salad; Cress, Garland, Upland; Dandelion; Dock (Sorrel); Endive; Fennel, Florence; Lettuce, Head and Lettuce; Orach; Parsley; Purslane, Garden, Winter; Radicchio (Red Chicory); Rhubarb; Spinach; Spinach, New Zealand and Vine; and Swiss Chard.

NEMATODE	Rate (oz / 100 lb seed)
Awl (<i>Dolichodorus</i> spp.) Lesion (<i>Pratylenchus</i> spp.) Needle (<i>Longidorus</i> spp.) Pin (<i>Paratylenchus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Spiral (<i>Rotylenchus</i> spp.) Stunt (<i>Tylenchorhynchus</i> and <i>Merlinius</i> spp.)	0.1 – 5 oz

LEGUME VEGETABLES – SUCCULENT OR DRIED (Crop Group 6)

Including, but not limited to, Bean (Includes Grain Lupin, Sweet Lupin, White Lupin, and White Sweet Lupin); Bean (Includes Field, Kidney, Lima, Navy, Pinto, Runner, Snap, Tepary, and Wax); Bean (Includes Adzuki bean, Asparagus Bean, Blackeyed Pea, Catjang, Chinese Longbean, Cowpea, Crowder Pea, Moth Bean, Mung Bean, Rice Bean, Southern Pea, Urd Bean, and Yardlong Bean); Broad Bean; Chickpea (Garbanzo Bean); Guar; Jackbean; Lablab Bean; Lentil; Pea (Includes Dwarf Pea, Edible-Pod Pea, English Pea, Field Pea, Garden-Pea, Green Pea, Snow Pea, and Sugar Snap Pea); Pigeon Pea; Soybean; Soybean (immature seed); and Sword Bean.

NEMATODE		
FOR SOYBEAN:	RATE (µg/seed)	Product Rate (oz per 140,000 seeds)
Awl (<i>Dolichodorus</i> spp.) Lance (<i>Hoplolaimus</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.), Soybean Cyst (<i>Heterodera</i> spp.) Stunt (<i>Tylenchorhynchus</i> spp.)	10 – 120	0.05 – 0.63
CHICKPEAS	Rate (oz / 100 lb seed)	
Root Lesion (<i>Pratylenchus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Reniform (<i>Rotylenchulus</i> spp.) Stem / Bulb (<i>Ditylenchus</i> spp.)	0.1 – 2.0 oz	
BEANS	Rate (oz / 100 lb seed)	
Root Lesion (<i>Pratylenchus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Reniform (<i>Rotylenchulus</i> spp.) Stem / Bulb (<i>Ditylenchus</i> spp.)	0.1 – 2 oz	

LENTILS	Rate (oz / 100 lb seed)
Root Lesion (<i>Pratylenchus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Reniform (<i>Rotylenchulus</i> spp.) Stem / Bulb (<i>Ditylenchus</i> spp.)	0.1 – 2 oz
PEAS	Rate (oz / 100 lb seed)
Root Lesion (<i>Pratylenchus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Reniform (<i>Rotylenchulus</i> spp.) Stem / Bulb (<i>Ditylenchus</i> spp.)	0.1 – 2 oz
OTHER LEGUMES	Rate (oz / 100 lb seed)
Root Lesion (<i>Pratylenchus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Reniform (<i>Rotylenchulus</i> spp.) Stem / Bulb (<i>Ditylenchus</i> spp.)	0.1 – 5 oz

OILSEED (Crop Group 20)

Including, but not limited to, Cottonseed; Flax Seed; Jojoba; Milkweed; Mustard Seed; Niger Seed; Poppy Seed; Rapeseed (canola varieties only); Safflower; Sesame; Sunflower.

NEMATODE

COTTON	RATE (oz per unit) (240,000 seeds/unit)
<i>Awl</i> (<i>Dolichodorus</i> spp.) <i>Lance</i> (<i>Hoplolaimus</i> spp.) Reniform (<i>Rotylenchulus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.)	0.2 - 4
SUNFLOWER	RATE (oz per unit) (200,000 seeds/unit)
Potato Cyst (<i>Globodera</i> spp.) Reniform (<i>Rotylenchulus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.)	0.2 - 4
CANOLA	Rate (oz / 100 lb seed)
Root-knot (<i>Meloidogyne</i> spp.)	0.2 – 4

PEANUT

NEMATODE	Rate (oz / 100 lb seed)
Peanut Root Knot (<i>Meloidogyne</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Sting (<i>Belonolaimus</i> spp.)	0.1 – 5

POTATO (Including Seed Production)	
NEMATODE	Rate (oz / 100 lb seed)
Awl (<i>Dolichodorus</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Potato Cyst (<i>Globodera</i> spp.) Spiral (<i>Helicotylenchus</i> spp.) Sheath (<i>Hemicycliophora</i> spp.) Sting (<i>Belonolaimus</i> spp.) Stubby-root (<i>Trichodorus</i> spp. and <i>Paratrichodorus</i> spp.) Stunt (<i>Tylenchorhyncus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.)	0.1 – 5

ROOT AND TUBER VEGETABLES (Crop Group 1)	
Including, but not limited to, Arracacha; Arrowroot; Artichoke, Chinese and Jerusalem; Beet, Garden and Sugar; Burdock, Edible; Canna, Edible; Carrot; Cassava, Bitter and Sweet; Celeriac (Celery Root); Chayote (Root); Chervil, Turnip-Rooted; Chicory; Chufa; Dasheen (Taro); Ginger; Ginseng; Horseradish; Leren; Parsley, Turnip-Rooted; Parsnip; Radish; Radish, Oriental; Rutabaga; Salsify; Salsify, Black and Spanish; Skirret; Sweet Potato; Tanier; Turmeric; Turnip; Yam (all types).	
NEMATODE	Rate (oz / 100 lb seed)
Awl (<i>Dolichodorus</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Root Lesion (<i>Pratylenchus</i> spp.) Needle (<i>Longidorus</i> spp.) Pin (<i>Paratylenchus</i> spp.) Reniform (<i>Rotylenchulus</i> spp.) Sting (<i>Belonolaimus</i> spp.) Stubby-root (<i>Trichodorus</i> spp. and <i>Paratrichodorus</i> spp.) Sugar Beet Cyst (<i>Heterodera</i> spp.)	0.1 – 5

TOBACCO – All Types	
NEMATODE	Rate (oz / 100 lb seed)

Root-knot (<i>Meloidogyne</i> spp.) Stunt (<i>Tylenchorhynchus</i> spp.) Tobacco Cyst (<i>Globodera</i> spp.)	0.1 – 5
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NON FOOD CROP RECOMMENDATIONS

GRASSES GROWN FOR SEED	
NEMATODE	Rate (oz / 100 lb seed)
Spiral (<i>Helicotylenchus</i> spp. and <i>Rotylenchus</i> spp) Sting (<i>Belonolaimus</i> spp.) Stubby-root (<i>Paratrichodorus</i> and <i>Trichodorus</i> spp.) Ring (<i>Mesocriconema</i> spp., <i>Criconemoides</i> spp., <i>Criconemella</i> spp.) Root-knot (<i>Meloidogyne</i> spp.)	0.1 – 5

GRASS FORAGE, FODDER, AND HAY (Crop Group 17)	
Including, but not limited to bermuda grass, bluegrass and bromegrass or fescue. Any grass, Gramineae family (either green or cured) except sugarcane and those included in the cereal grains group, that will be fed to or grazed by livestock, all pasture and range grasses and grasses grown for hay or silage.	
NEMATODE	Rate (oz / 100 lb seed)
Ring (<i>Mesocriconema</i> spp., <i>Criconemoides</i> spp., <i>Criconemella</i> spp.) Root-knot (<i>Meloidogyne</i> spp.) Spiral (<i>Helicotylenchus</i> spp. and <i>Rotylenchus</i> spp) Sting (<i>Belonolaimus</i> spp.) Stubby-root (<i>Paratrichodorus</i> and <i>Trichodorus</i> spp.)	0.1 – 5

ORNAMENTALS	
Including, but not limited to, Aglaonema, Aphelandra, Arborvitae, Ash, Azaleas, Bougainvillea, Boxwood, Cattleya skinneri, Cedars, Ceanothus, Cotoneaster, Cissus, Dieffenbachia, Dogwood, Ferns, Ficus, Flowering Trees, Hibiscus, Hard Wood Trees, Holly, Home Lawns, Juniper, Magnolia Trees, Maple, Pines, Oaks, Palms, Peperomia, Photinia, Pittosporum, Philodendron, Pieris, Pothos, Redwoods, Rhododendron, Roses, Schefflera, Sedum, Sempervivum, Shrubs, Spathiphyllum, Sycamore, Taxus media, Zygocactus.	
NEMATODE	Rate (oz / 100 lb seed)

Root-knot (<i>Meloidogyne</i> spp.) Spiral (<i>Helicotylenchus</i> spp. and <i>Rotylenchus</i> spp)	0.1 – 5
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TURF

Including, but not limited to, turf grasses on sod farms and lawns, commercial turf production, golf courses (including tees and greens), parks and commercial landscapes.

NEMATODE	Rate (oz / 100 lb seed)
Awl (<i>Dolichodorus</i> spp.) Spiral (<i>Helicotylenchus</i> spp. and <i>Rotylenchus</i> spp) Sting (<i>Belonolaimus</i> spp.) Stubby-root (<i>Paratrichodorus</i> and <i>Trichodorus</i> spp.) Ring (<i>Mesocriconema</i> spp., <i>Criconemoides</i> spp., <i>Criconemella</i> spp.) Root-knot (<i>Meloidogyne</i> spp.)	0.1 – 5

[ALTERNATE TEXT:

Crop	Rate
LEEK, ONION	0.1 – 5 oz per 100 lb seed
LETTUCE, SPINACH, FENNEL	0.1 – 5 oz per 100 lb seed
BROCCOLI, CABBAGE, CAULIFLOWER, CHINESE CABBAGE	0.1 – 5 oz per 100 lb seed
DRY BEAN, GARDEN BEAN, PEA	0.1 – 2 oz per 100 lb seed
CUCUMBER, EDIBLE GOURD, MELON, PUMPKIN, SQUASH, WATERMELON	0.1 – 5 oz per 100 lb seed
EGGPLANT, HOT PEPPER, OKRA, SWEET PEPPER, TOMATO, TOMATO SEED FOR ROOTSTOCK PRODUCTION	0.1 – 5 oz per 100 lb seed
CARROT, RADISH	0.1 – 5 oz per 100 lb seed
SWEET CORN	0.03 – 0.3 oz per 100 lb seed
CANOLA	0.2 – 4 oz per 100 lb seed
CORN (Grain, Silage, Seed, or Pop)	0.03 – 0.3 oz per 100 lb seed
COTTON	0.2 – 4 oz per 100 lb seed
SORGHUM	0.05 – 0.63 oz per 100 lb seed
SOYBEAN	0.05 – 0.63 oz per 100 lb seed
SUGARBEET	0.1 – 5 oz per 100 lb seed
WHEAT	0.2 – 4 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 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 *[Note to reviewer: commercial packaging is non-refillable plastic bag.]*

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 PI AgSciences, Inc. and the Buyer shall assume all such risks.

EXCLUSIVE WARRANTIES

PI AgSciences, 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 PI AgSciences, 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, PI AgSciences, 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 PI AgSciences, 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 PI AgSciences, 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. PI AgSciences, 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 PI AgSciences, Inc.

PROMPT NOTICE OF CLAIM

PI AgSciences, 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 PI AgSciences, 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.

© 2023 PI AgSciences, Inc. Always read and follow label instructions before buying or using this product.

[BARCODE]

XX.XXXX PHC 68949 US Ag

PHC 68949[®]

[Alternate Brand Names: TEIKKO]

A Biochemical Pesticide for Pre-Plant Seed Treatment that:

[OPTIONAL TAG LINES – For use individually or in combination on labels. A biochemical pesticide seed treatment that: Improves stand establishment; Enhances crop growth, quality and yield; Yield enhancer; Increases Root Mass; Activates plant growth and defense systems; Enhances plant’s resistance to plant nematode damage; Regulates genes involved in drought tolerance pathways, Stimulates plant secondary metabolites that directly inhibit nematode egg hatching; Plant Health Promoter; Improves standability; Increases plant stamina and vigor; Enhances plant health; Facilitates Integrated Pest Management Programs.]

FOR USE ONLY AS SEED TREATMENT IMMEDIATELY PRIOR TO PLANTING

Dry Seed Treatment Formulation

ACTIVE INGREDIENT:
 PDHP 68949: 1.0%
OTHER INGREDIENTS: 99.0%
 Total: 100.0%

EPA Reg. No. 71771-XX
 EPA Est. No. _____

KEEP OUT OF REACH OF CHILDREN

**CAUTION
 PRECAUCIÓN**

(See [(side)(back)] panel for additional precautionary statements and first aid.)the

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.)

PI AgSciences, Inc.
 12140 Woodcrest Executive Drive, Suite 245
 St. Louis, MO 63141
 1-800-421-9051
www.planthealthcare.com

[Lot] [Batch] [No.] [Code]: _____
 (Note to reviewer: Lot/batch number may be placed on the label or printed directly onto product packaging/container.)
NET WEIGHT: _____

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. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Wear long sleeves, long pants, shoes and socks, and waterproof gloves.

FIRST AID	
If Inhaled	<ul style="list-style-type: none"> • 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.

If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
<p>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.</p>	

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Shoes and socks.
- Waterproof gloves.
- A NIOSH approved particulate respirator with any N, R, or P filter with NIOSH approval number prefix TC-84A; or a NIOSH approved powered air-purifying respirator with HE filter with NIOSH approval number prefix TC-21C. Repeated exposures to high concentrations of microbial proteins can cause allergic sensitization.

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 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

PHC 68949 contains a biochemical molecule that 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: enhances plant's resistance to plant nematode damage; regulates genes involved in drought response pathways, stimulates plant secondary metabolites that directly inhibit nematode egg hatching; improved stand and root establishment, increased marketable yield, and enhanced quality. PHC 68949 works best when used in conjunction with good crop management practices.

SITES

Use PHC 68949 as a Seed Hopper/Seed Tank treatment for field production of corn, soybean, and other listed crops.

USE PRECAUTIONS

USE PROMPTLY

Carefully reseal opened packages immediately after use to minimize exposure to air and moisture.

MIXING

PHC 68949 may be used in conjunction with other commercial seed treatments and/or with other dry hopper box treatments. Apply PHC 68949 only to dry seed. Do not mix PHC 68949 with water or any other seed lubricant product. Check with your local PI AgSciences, Inc. representative for specific compatibility information for PHC 68949 and other labeled products.

STORAGE OF TREATED SEED

Seed treated with PHC 68949 should be covered and stored in a cool, dry location. When stored properly, seed can be stored up to 3 months. Do not store excess treated seed beyond planting time.

APPLICATION INSTRUCTIONS

Apply PHC 68949 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 PHC 68949 over seed. See the appropriate application rates under CROPS and APPLICATION RATES. Finish filling the hopper box with seed and sprinkle the remaining PHC 68949 over the new seed. It is important that PHC 68949 is mixed thoroughly on to the seed.

CROPS AND APPLICATION RATES

Field Crops

Crop CORN (Grain, Sweet, Silage, Seed, or Pop) SOYBEAN	Rate per Unit* of Seed *(80,000 corn seeds or 140,000 soybean seeds) One – Five Level Scoops (supplied in container) or 0.10 – 0.5 oz or 2.8 – 14.0 grams
Crop SORGHUM	Rate per number of Seed (60,000 – 100,000 sorghum seeds) One – Five Level Scoops (supplied in container) or 0.10 – 0.5 oz or 2.8 - 14 grams
Crop SUNFLOWER	Rate per Unit* of Seed *(200,000 sunflower seeds) One – Five Level Scoops (supplied in container) or 0.10 – 0.5 oz or

	2.8 – 14.0 grams
Crop COTTON	Rate per Unit* of Seed *(220,000 – 250,000 cotton seeds) One – Five Level Scoops (supplied in container) or 0.10 – 0.5 oz or 2.8 – 14.0 grams

Crop	Rate per 100 lbs. of seed
Legume Crops (Chickpeas, Dry Beans, Dry Peas, Lentils)	One – Five Level Scoops (supplied in container) or 0.10 – 0.5 oz or 2.8 – 14.0 grams
All Cereals (Wheat (Winter, Spring) Barley, Millet, Oats, Sorghum, Rice, Triticale)	One – Five Level Scoops (supplied in container) or 0.10 – 0.5 oz or 2.8 – 14.0 grams

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 *[Note to reviewer: commercial packaging is non-refillable plastic bag.]*

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

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EXCLUSIVE WARRANTIES

PI AgSciences, 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 PI AgSciences, 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, PI AgSciences, 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 PI AgSciences, 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 PI AgSciences, 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. PI AgSciences, 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 PI AgSciences, Inc.

PROMPT NOTICE OF CLAIM

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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.

© 2022 PI AgSciences, Inc. Always read and follow label instructions before buying or using this product.

[BARCODE]

XX.XXXX PHC 68949 US Ag

PHC 68949

A Biochemical Pesticide – For Re-packaging or Formulating Use Only.

Wettable Dry Granule

ACTIVE INGREDIENT:

PDHP 68949 1.0%

OTHER INGREDIENTS:99.0%

Total:100.0%

EPA Reg. No. 71771-XX

EPA Est. No. _____

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.)

PI AgSciences, Inc.
12140 Woodcrest Executive Drive, Suite 245
St. Louis, MO 63141
1-800-421-9051
www.planthealthcare.com

[Lot] [Batch] [No.] [Code]: _____
(Note to reviewer: Lot/batch number may be placed on the label or printed directly onto product packaging/container.)

NET WEIGHT: _____

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if inhaled. Avoid breathing dust or spray mist. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Wear long sleeves, long pants, shoes and socks, and waterproof gloves.

FIRST AID	
If Inhaled:	<ul style="list-style-type: none">▪ 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.
If on skin or clothing	<ul style="list-style-type: none">▪ Take off contaminated clothing.▪ Rinse skin immediately with plenty of water for 15-20 minutes.▪ Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">▪ Hold eye open and rinse slowly and gently with water for 15-20 minutes.▪ Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.▪ Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For 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.
- Waterproof gloves.
- A NIOSH approved particulate respirator with any N, R, or P filter with NIOSH approval number prefix TC-84A; or a NIOSH approved powered air-purifying respirator with HE filter with NIOSH approval number prefix TC-21C. Repeated exposures to high concentrations of microbial proteins can cause allergic sensitization.

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.

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. For repackaging only or formulating use only.

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.

PESTICIDE DISPOSAL

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

CONTAINER HANDLING [Note to reviewer: commercial packaging is bulk plastic containers, bags, or lined drums.]

[Note to reviewer: The following container handling instructions for a bulk plastic container. Note product is non-dilutable in bulk repack scenario:]

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

[Note to reviewer: The following container handling instructions for a lined drum:]

Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment then offer for recycling if available or dispose of in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

[Note to reviewer: The following container handling instructions for nonrefillable bulk plastic bag:]

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

[BARCODE]

XX.XXXX PHC 68949 US Bulk