

Messenger[®]GOLD

Powered by Harpin α [®] Protein

A Biochemical Pesticide that:

- Suppresses Nematode Egg Production
- Enhances Crop Growth, Quality and Yield
- Increases Plant Stamina and Vigor

Wettable Dry Granule

ACTIVE INGREDIENT:

Harpin α Protein: 1.0%

OTHER INGREDIENTS: 99.0%

Total: 100.0%

EPA Reg. No. 71771-3

EPA Est. No. 88746-GA-1

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.)

Read the entire label before using this product. Read WARRANTY AND DISCLAIMER before buying or using. If terms are not acceptable, return at once unopened.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

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

FIRST AID

If Inhaled:	<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.
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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.

Net Weight: 1 lb. (16 oz.)



PLANT HEALTH[®]
— C A R E —

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

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

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

USER SAFETY RECOMMENDATIONS

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

ENVIRONMENTAL HAZARDS

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark.

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

DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

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

PPE required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water) is:

- Coveralls;
- Waterproof gloves; and
- Shoes and socks.

NON-AGRICULTURAL USE REQUIREMENTS

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

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

PRODUCT INFORMATION

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

MESSENGER GOLD is a tool for use in Integrated Crop Management (ICM). Product efficacy is based on its ability to activate the internal defense and growth mechanisms which are common in all agricultural crops, turf, ornamental, & landscape applications. It has no direct killing effect on pests. MESSENGER GOLD works best when used in conjunction with good crop management practices. MESSENGER GOLD works best when used in conjunction with good landscape management practices.

NEMATODE EGG SUPPRESSION AND PLANT GROWTH

MESSENGER GOLD can be used to suppress nematode egg production while improving plant and root growth. MESSENGER GOLD offers a different mode of action for nematode suppression. Use of a labeled pre-plant application of a soil fumigant, contact nematicide, or nematicidal seed treatment is typically needed for nematode suppression in most crops. Apply MESSENGER GOLD for supplemental suppression of nematode egg production.

GROWTH ENHANCEMENT AND MARKETABLE YIELD

Use MESSENGER GOLD to:

- overcome transplant shock,
- enhance plant growth and quality,
- reduce crop injury associated with fungicide and herbicide applications,
- mend rhizomatous turf types,
- and increase plant health and vigor to enhance crop quality and marketable production.

POST-HARVEST BENEFITS

Use MESSENGER GOLD to extend storage and shelf life and overcome transplant shock through pre-harvest applications.

SITES

Use MESSENGER GOLD for greenhouse, shadehouse, nursery, and field production of all plants and crops 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

MESSENGER GOLD has a zero day Pre Harvest Interval (PHI). MESSENGER GOLD can be applied up to the day of harvest.

USE PRECAUTIONS

USE PROMPTLY

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

TANK MIXING

Use in mixtures: MESSENGER GOLD is believed to be compatible with most other labeled pesticides, such as post-emergence herbicides, insecticides, acaricides, and fungicides, as well as most foliar nutritional products. To determine the physical compatibility of this product with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to approximately one quart of water with agitation. Add dry flowables first, then flowables, and then emulsifiable concentrates last. After thorough mixing, allow this mixture to stand for 5 minutes. If the combination remains mixed or can be readily remixed, it is physically

compatible. Once compatibility has been confirmed, 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 MESSENGER GOLD with any other approved pesticide, always read and follow all use directions, restrictions, and precautions of both MESSENGER GOLD 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.

If MESSENGER GOLD cannot be put in the tank first, before adding it to the tank, slurry the MESSENGER GOLD in a small amount of clean water and add the slurry to the tank.

Herbicide Tolerant Crops: When tank mixing MESSENGER GOLD with glyphosate, dicamba, glufosinate, or 2,4-D for application on crops designated Roundup Ready®, Xtendimax®, Engenia®, Tavium®, Enlist One®, Enlist Duo®, etc. only use formulations of foliar herbicides that are fully labeled for use on registered crops. Never spray this mixture on crops that are not designated Roundup Ready® Xtendimax®, Engenia®, Tavium®, Enlist One®, Enlist Duo®, etc. as severe injury or death of the crop can occur. Some foliar herbicide formulations allow for the addition of surfactants. Please refer to the surfactant recommendations from the manufacturer.

Precautions: Do not use MESSENGER GOLD 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 in spray mixtures with MESSENGER GOLD.

DILUTION WATER QUANTITY

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

CROP RIPENING

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

RAIN

Do not apply during rain. MESSENGER GOLD is rainfast 30 minutes after application. Reapplication is not necessary if the spray has dried before rain begins.

STRESSED PLANTS

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

SPRAY DRIFT

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

MIXING INSTRUCTIONS

Step 1: Fill at least one-half of the mix tank with clean water. Provide gentle agitation.

Step 2: If 1 ounce of MESSENGER GOLD is diluted in more than 35 gallons of chlorinated water, add a labeled water treatment product and continue gentle agitation (see Use Precautions on “Dilution Water Quantity”).

Step 3: Add the required amount of MESSENGER GOLD. 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 MESSENGER GOLD as a pre-transplant foliar, root dip, or as a foliar application, including pre-harvest foliar applications for post-harvest benefits. Apply MESSENGER GOLD as a pre-transplant root dip or as a foliar application.

Pre-Plant Dip: Apply MESSENGER GOLD as a pre-plant foliar, root dip, or root drench to vegetable crops (e.g., asparagus, celery, collards, cole and cucurbit vegetables, eggplants, leeks, lettuce, onions, peppers, tomatillo, tomato, and other crops), ornamentals, tobacco, and small fruit crops at the rate of 1 – 6 oz per 100 gallons of water immediately prior to transplanting. Apply MESSENGER GOLD as a pre-plant foliar or root dip to bare root ornamentals at the rate of 1 – 3 oz per 100 gallons of water immediately prior to transplanting. 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 MESSENGER GOLD as specified in the tables that follow. For continued plant management, follow with foliar applications of MESSENGER GOLD as specified in the sections that follow.

Transplant Water: Apply MESSENGER GOLD as a root and soil drench via the transplant water for vegetable crops (e.g., asparagus, celery, collards, cole and cucurbit vegetables, eggplants, leeks, lettuce, onions, peppers, sweet potatoes, tomatillo, tomato, and other vegetable crops), and citrus, ornamentals, small fruits, tobacco, tree fruit, tree nut, and other crops at the rate of 1 – 6 oz per 100 gallons of water at transplanting.

In-furrow: Apply as an in-furrow spray during planting directed on, below, or beside seed, seed pieces, or sugarcane seed-stalks (seed-cane), billets, or seed-stalk sections at 1 - 6 oz/A.

Foliar Application: Apply MESSENGER GOLD as a greenhouse or field application using conventional ground or aerial equipment. Use MESSENGER GOLD to enhance plant growth and vigor, to increase marketable production, or as part of an integrated pest management (IPM) program to assist disease management and obtain post-harvest benefits.

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

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

are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment. Apply product continuously for the duration of the water application.

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

CROPS AND APPLICATION RATES

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

NEMATODE SUPPRESSION

Use MESSENGER GOLD for supplemental suppression of nematodes. Use MESSENGER GOLD in conjunction with other nematode management practices. Use rates are specified beside each crop or crop grouping in tables below.

Crop	Use Instructions
DIRECT-SEEDED CROPS	In Field: Use MESSENGER GOLD following a pre-plant application of soil fumigant, contact nematicide, or nematicidal seed treatment, if available. Make first foliar application of MESSENGER GOLD at early after plant emergence. Re-apply as specified in tables below.
TRANSPLANTED CROPS	Use MESSENGER GOLD following a pre-plant application of soil fumigant, contact nematicide, or nematicidal seed treatment, if available. Pre-Plant: Apply MESSENGER GOLD as a pre-plant foliar or root dip at the rate of 3 – 6 oz per 100 gallons of water immediately prior to transplanting. In Field: Make first foliar application of MESSENGER GOLD at 2 – 3 weeks after transplanting. Re-apply as specified in tables below.
PERENNIAL CROPS	In Field: Use MESSENGER GOLD following a pre-plant application of soil fumigant, contact nematicide, or nematicidal seed treatment, if available. Make first foliar application of MESSENGER GOLD after plants break dormancy and begin root growth. Re-apply as specified in tables below.

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 early after seedling emergence. Repeat every 14 – 21 days.
Transplant: Any Crop Listed Elsewhere on This Label	0.5 – 6 oz per 100 gal water	Apply 5 – 7 days before transplanting. Can also be applied as a plant drench at transplanting.

FOOD CROP APPLICATIONS

ARTICHOKE (GLOBE)		
RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1 – 6	10 – 200 by ground. 2 – 50 by air.	Apply as a foliar spray at 14 – 28 day intervals, beginning at new growth.

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.		
RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1 – 6	10 – 200 by ground. 2 – 50 by air.	Begin applications when plants are established or 14 days after full leaf emergence. Repeat at 14 – 28-day intervals as needed.

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.		
RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1 – 6	10 – 200 by ground. 2 – 50 by air.	Begin applications at first new growth and repeat at 14 – 28 day intervals.

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.		
RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1 – 6	10 – 200 by ground. 2 – 50 by air.	Begin applications prior to first bloom. Repeat applications at 14 – 21-day intervals. For direct-seeded plants, begin at first true leaf.

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.		
RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
0.5 – 6	5 – 200 by ground. 2 – 50 by air.	Apply after complete emergence during vegetative growth phase.

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.

RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1 – 6	10 – 200 by ground. 2 – 50 by air.	Cucumber: Apply at transplant (if applicable) followed by applications and every 14 – 28 days thereafter. Squash: Apply at transplant (if applicable) followed by applications and every 14 – 28 days thereafter. Other Cucurbits: Apply 3 – 4 times beginning on transplants 2 – 7 days before planting or at transplant establishment, and for direct seeded crops at V2 – V3, and every 14 – 28 days thereafter.

FRUITING VEGETABLES (Crop Group 8, Except Cucurbits)

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

RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1 – 6	10 – 200 by ground. 2 – 50 by air.	Begin applications prior to first bloom. Repeat applications at 14 – 28-day intervals. For direct-seeded plants, begin at first true leaf.

GRAPE

RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1 – 6	10 – 200 by ground. 2 – 50 by air.	Apply 2 – 7 applications at pre-bloom, 4 – 8 mm berries, berry touch (bunch closure), veraison, 2 – 4 weeks before harvest, and/or post harvest at fall root flush.

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.

RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1 – 2	10 – 200 by ground. 2 – 50 by air.	Apply at 14– to 28-day intervals, beginning 7 days after new growth/ new spring growth is initiated.

HOPS		
RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1 – 4	10 – 200 by ground. 2 – 50 by air.	Apply 3 applications beginning just prior to bud formation, at flowering, and 14 – 28 days after flowering.

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.		
RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1 – 6	10 – 200 by ground. 2 – 50 by air.	Begin applications prior to first bloom. Repeat applications at 14 –28-day intervals. For direct-seeded plants, begin at first true leaf.

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.		
RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
0.5 – 6	10 – 200 by ground. 2 – 50 by air.	Begin applications prior to first bloom. Repeat applications at 14 –28-day intervals. For direct-seeded plants, begin at first true leaf.

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.		
RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1 – 6	10 – 200 by ground. 2 – 50 by air.	Apply after new growth commences and at each cutting. For newly seeded crops, begin at first true leaf.

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.		
Cotton		
RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1.0 – 6	5 – 200 by ground. 2 – 50 by air.	Apply after complete emergence during vegetative growth phase and every 14–35 days thereafter.

Canola		
RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
0.5 – 6	10 – 200 by ground. 2 – 50 by air.	Apply one application tank mixed with a post-emergent herbicide, insecticide, or fungicide, at the rosette stage prior to bolting.
All other Oilseeds		
RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
0.5 – 6	10 – 200 by ground. 2 – 50 by air.	Begin applications at early emergence and every 14–35 days, thereafter.

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.

RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
2 – 6	10 – 200 by ground. 2 – 50 by air.	Apple Timing: Pink bud and petal fall (for fruit sizing). 30 and 15 days before harvest (for fruit coloring). Pear Timing: white bud to popcorn stage and petal fall (for fruit sizing).

POTATO (Including Seed Production)

RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1 – 6	10 – 200 by ground. 2 – 50 by air.	Apply at first hook and repeat applications as needed every 21–28 days.

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).

RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1 – 6	10 – 200 by ground. 2 – 50 by air.	Apply after complete emergence during vegetative growth phase.

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.

RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1 – 6	10 – 200 by ground. 2 – 50 by air.	Apply at 14 – to 35-day intervals, beginning before bloom initiation.

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.

RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
2 – 6	10 – 200 by ground. 2 – 50 by air.	Apply at 14 – to 35-day intervals, beginning before bloom initiation.

NON FOOD CROP APPLICATIONS**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, and Vinca.

RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1 – 3	10 – 200 by ground. 2 – 50 by air.	Begin applications prior to first bloom. Repeat at 14 – 28-day intervals.

GRASSES GROWN FOR SEED

RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
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 other programs.

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

Including, but not limited to bermudagrass, 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.

RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
0.5 – 3	10 – 200 by ground. 2 – 50 by air.	Apply after new growth commences and at each cutting. For newly seeded crops, begin at first true leaf.

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.

RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
1 – 3	10 – 200 by ground. 2 – 50 by air.	Begin applications prior to first bloom. Repeat at 14 – 28-day intervals.

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.

RATE (oz/Acre)	Dilution (Gal/Acre)	Timing
0.5 – 3	10 – 200 by ground. 2 – 50 by air.	Begin applications when newly seeded plants are established or 14 days after emergence. For established plants after cutting to new growth and every 28 – 35 days thereafter.

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 – 3 oz MESSENGER GOLD per labelled rates for foliar fertilizers. To determine the physical compatibility of this product with other products, use a jar test.

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

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

WARRANTY AND DISCLAIMER

CONDITIONS OF SALE AND EXCLUSIVE WARRANTY

The Directions for Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness of the product, or other unintended consequences may result because of such factors as horticultural practices, use with other products (unless otherwise expressly provided in the Directions for Use of this product), presence of other materials, the manner of use or application, and various environmental conditions, including but not limited to weather conditions and moisture conditions. To the extent consistent with applicable law, all of the aforementioned risks are beyond the control of Plant Health Care, Inc. and the Buyer shall assume all such risks.

EXCLUSIVE WARRANTIES

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

LIMITATION OF LIABILITY

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

ASSUMPTION OF RISK

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

WARRANTY AND DISCLAIMER (cont.)

PROMPT NOTICE OF CLAIM

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

TANK MIXES

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

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Messenger[®]GOLD

Powered by Harpin α [®] Protein

A Biochemical Pesticide that:

- Suppresses Nematode Egg Production
- Enhances Crop Growth, Quality and Yield
- Increases Plant Stamina and Vigor

Wettable Dry Granule

ACTIVE INGREDIENT:

Harpin α Protein: 1.0%

OTHER INGREDIENTS: 99.0%

Total: 100.0%

EPA Reg. No. 71771-3 EPA Est. No. 88746-GA-1

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.)

Read the entire label before using this product.

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

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

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

FIRST AID

If Inhaled:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical treatment information, call the National Pesticide Information Center at 1-800-858-7378, 6:30 AM to 4:30 PM Pacific Time, seven days a week. During other times, call the poison control center at 1-800-222-1222.

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.

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.

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CONTAINER HANDLING

NON-RIGID NONREFILLABLE CONTAINERS: 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.

Net Weight: 1 lb. (16 oz.)



PLANT HEALTH[®]
— C A R E —

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1-800-421-9051 • www.planthealthcare.com

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