

Please read instructions on reverse before completing form.

Form Approved, OMB No. 2070-0060, Approval expires 2-28-95



United States
Environmental Protection Agency
Washington, DC 20460

<input type="checkbox"/>	Registration
<input type="checkbox"/>	Amendment
<input checked="" type="checkbox"/>	Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 69834-2	2. EPA Product Manager Diana Horne	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Messenger	PM#	
5. Name and Address of Applicant (Include ZIP Code) EDEN BIOSCIENCE Corporation 3830 Monte Villa Parkway, Suite 100 Bothell, WA 9801-7266 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Reviewed By: *Syler*
Date Reviewed: 2-17-04

Explanation: Use additional page(s) if necessary. (For section I and Section II.)
Notification per PR Notice 98-10 to notify EPA changes Sections A,B & C - to correct the company address, in Section A to correct Step 2 of the mixing instructions; and in Section C to add an optional tag line and add alternate dilution instructions for a smaller packet size. This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container
				<input checked="" type="checkbox"/> Paper	
				<input type="checkbox"/> Glass	
				<input type="checkbox"/> Foil	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container Various		5. Location of Label Directions <input checked="" type="checkbox"/> On product label	
6. Manner in Which Label is Affixed to Product		<input checked="" type="checkbox"/> Lithograph Paper glued Stenciled		<input type="checkbox"/> Other _____	

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Frederick S. Betz	Title Director of Regulatory Affairs	Telephone No. (Include Area Code) 410-268-0015
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature <i>Frederick S. Betz</i>	3. Title Director of Regulatory Affairs	
4. Typed Name Frederick S. Betz	5. Date 1/8/04	

Messenger® Master Label Index

Section A: Agricultural Use
Section B: Commercial Seed Treatment
Section C: Non-Agricultural Use

Section A. Agricultural Use MESSENGER

A Biochemical Pesticide that:

- Activates Plant Growth and Defense Systems,
- Enhances Plant Health,
- Aids Post Harvest Disease Management, and
- Facilitates Integrated Pest Management Programs.

Wettable Dry Granule

ACTIVE INGREDIENT:

Harpin Protein: 3.0%

OTHER INGREDIENTS: 97.0%

Total: 100%

EPA Reg. No. 69834-2 EPA Est. No. 69834-WA-001

**KEEP OUT OF REACH OF CHILDREN
CAUTION
PRECAUCION**

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.)



Net Weight:

EDEN BIOSCIENCE Corporation
3830 Monte Villa Parkway, Ste. 100, Bothell, WA 98021-7266
1-888-879-2420 • www.edenbio.com

Read the entire label before using this product.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

PRECAUTIONARY STATEMENTS

**HAZARD TO HUMANS & DOMESTIC ANIMALS
CAUTION**

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Shoes and socks.
- Particulate dust mask, when mixing.

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using toilet.

ENVIRONMENTAL HAZARDS

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 cleaning equipment or disposing of equipment washwaters.

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

requirement specific to your State or Tribe, consult the 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), notification to workers, 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 restricted entry interval (REI) of 4 hours.

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 plant, soil, or water is:

- Coveralls over long-sleeved shirt and long pants;
- Waterproof gloves; and
- Shoes and socks.

PRODUCT INFORMATION

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

GENERAL INSTRUCTIONS

GROWTH ENHANCEMENT AND MARKETABLE YIELD

Use Messenger to increase plant health and vigor, to assist in the management of certain diseases, and to enhance crop quality and marketable production.

POST HARVEST BENEFITS

Messenger can be used to extend shelf life through pre-harvest applications.

SITES

Messenger may be used for greenhouse, shadehouse, nursery, outdoor home and garden, and field production on all 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 may be applied up to or after harvest.

USE ADVISORIES

USE PROMPTLY

Use product within 8 hours of mixing into water. Reseal opened packets to minimize exposure to air and moisture. Use opened packets within 3 weeks.

MIXING

Messenger may be tank mixed with most other labeled pesticides to enhance efficiency. Do not use Messenger in tank mixes or water below pH 5.0 or above 10.0. Use of the resulting tank mix must be in accordance with more restrictive label limitations and precautions. No dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing. Messenger may be inactivated by exposure to strong oxidizing agents or materials that are strongly acidic or basic found in some tank mixes.

- Do not mix this product with pyrophosphates, phosphoric acid, or other strong oxidizers

- Messenger is a protein, therefore, compatibility with inorganic salts, chemicals using clay-based formulas, or other materials in a tank mix cannot be assured under all circumstances.
- Only non-ionic adjuvants that have been approved for use on growing and harvested crops may be used.

Check with your local EDEN BIOSCIENCE field representative or EDEN BIOSCIENCE Customer Service for specific compatibility information for Messenger and other labeled products.

DILUTION WATER QUALITY

If dilution water is high in total mineral content, salinity, and/or suspended solids then first dissolve Messenger in an appropriate volume of "clean water" such as municipal tap water. Then pour the dissolved Messenger solution into the dilution water for the spray (see step 1 of "Mixing Instructions").

DILUTION WATER QUANTITY

For application rates of less than 4 oz per acre, if dilution water is chlorinated (e.g., municipal water) and the volume exceeds 150 gpa, then use labeled water treatment products to remove excess chlorine. Consult your EDEN BIOSCIENCE representative if you need further directions on water treatment.

CROP RIPENING

Crop maturity may be different in crops treated with Messenger. User must monitor crop for maturity and harvest accordingly.

RAIN

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

STRESSED PLANTS

Plants must be actively growing at the time of foliar applications. Applications made to plants that are stressed by extreme heat, cold, moisture, or nutrient deficiencies may 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 the mix tank with clean water. Provide gentle agitation.

Step 2: If using more than 150 gpa of chlorinated water and an application rate of less than 4 oz per acre, add water treatment agent and continue gentle agitation (See Use Advisory on "Dilution Water Quantity").

Step 3: If dilution water quality is suspect, then pre-dissolve Messenger in "clean" water before adding to the mix tank (see Use Advisory on "Dilution Water Quality"). Add the required amount of Messenger. Agitate until dissolved and avoid excessive foaming.

Step 4: If tank mixing, add other spray materials to the tank.

Step 5: Continue gentle agitation and apply promptly.

APPLICATION INSTRUCTIONS

Seed Treatment: Messenger may be used to treat seeds. Apply 0.35-5.00 oz. Messenger per 100 lbs. seed as a pre-plant seed treatment using standard seed treatment equipment. Mix thoroughly and plant. Messenger may be mixed with some other commercial seed treatments. Use of the resulting mix must be in accordance with the more restrictive label limitations and precautions.

Application via Sprinkler, Drip, or Chemigation Systems: General Statements: Messenger may be applied through most sprinkler, drip, or chemigation systems. If you have questions about your system's calibration, you should contact State Extension Service Specialists, equipment manufacturer or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system. A person knowledgeable about 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.

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.

Pre-plant Dip: Apply as a pre-plant dip to strawberry roots and crowns at the rate of 4.5 oz per 100 gallons of water. Completely immerse planting stock in solution. DO NOT reuse water solution. It is recommended that transplants be washed to remove excess soil prior to dipping. Dip or expose plants for a minimum of 2 to 5 minutes. Dispose of dip solution according to local restrictions.

Plant treated plants as quickly as possible. For continued disease management follow with foliar applications of Messenger on a 14-21 day interval.

Foliar Application: Messenger may be used as a greenhouse or field application using conventional ground or aerial equipment. Messenger is recommended to boost plant growth, vigor, and marketable production; and as part of an IPM program to assist disease management and obtain post harvest benefits. Use the following tables to make proper decisions on application rates and timing. Follow recommendations for your crop.

Greenhouse and Transplant Applications

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

Vegetable, Cucurbit, Cole, and Other Crops

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
ARTICHOKE ASPARAGUS	2.25-9	10-200 by ground. Minimum 3 by air.	Apply as a foliar spray at approximately 14-day intervals beginning at new growth [ALTERNATE TEXT] Begin applications prior to first bloom. Repeat at 14-28-day intervals. For direct seeded plants begin 14 days after first true leaf.
FRUITING VEGETABLES Such as: Tomato Pepper Okra Eggplant			After transplanting, foliar sprays are recommended at approximately 14-day intervals through harvest beginning 2 weeks after the last greenhouse drench. If no drench has been applied, begin applications at approximately 14-day intervals at first new growth. For direct-seeded tomato, applications at approximately 14-day intervals are recommended beginning 14 days after first true leaf. [ALTERNATE TEXT] Begin applications prior to first bloom. Repeat at 14-28-day intervals. For direct seeded plants begin 14 days after first true leaf.
CUCURBITS Such as: Cucumber Melon Squash LEAFY AND COLE CROPS Such as: Bok Choy Broccoli Cabbage Cauliflower Celery Chard, Lettuce Spinach ONION GARLIC SCALLION			Begin applications at first new growth and repeat at approximately 14-day intervals [ALTERNATE TEXT] For best results begin applications prior to first bloom. Repeat at 14-28-day intervals. For direct seeded plants begin 14 days after first true leaf.

SWEET CORN			Apply at approximately 14-day intervals beginning at first new growth. [ALTERNATE TEXT] Begin applications prior to first bloom. Repeat at 14-28-day intervals. For direct seeded plants begin 14 days after first true leaf.
------------	--	--	---

Messenger is recommended to aid in the management of the following diseases:
 Cucurbits: cucumber mosaic virus (CMV), and tobacco mosaic virus (TMV).
 Fruiting vegetables: CMV. Bacterial speck (*Pseudomonas syringae*) in tomatoes, bacterial leaf spot (*Xanthomonas campestris*) in peppers, and foliar bacterial diseases in other fruiting vegetables.
 Pepper: bacterial leaf spot and Phytophthora root rot.
 Tomato: bacterial leaf spot, bacterial wilt, Fusarium wilt, Phytophthora root rot, CMV, and root knot nematodes.
 Use Messenger at 4.5 oz/acre to boost overall production of both processing and fresh tomatoes.

Field Crops

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
LEGUMES Such as: Beans Peas Lentils Peanut Soybean	2.25-9	10-200 by ground Minimum 3 by air	Apply at approximately 14-day intervals beginning at first new growth. [ALTERNATE TIMING]: Apply after complete emergence. Repeat at approximately 14-day intervals as needed.
COTTON			Apply at first true leaf, first bloom, and 21 days after first bloom to boost overall growth and production. For suppression of pests, apply Messenger prior to infestation and continue at approximately 14-day intervals. [ALTERNATE TEXT]: Apply between 2 leaf stage and mid-bloom.
TUBER CROPS Such as: Potato Sweet Potato Yams			Apply at approximately 14-day intervals beginning at first new growth. [ALTERNATE TEXT]: Apply at tuber initiation. Repeat applications as needed every 21-28 days
FORAGE CROPS Such as: Alfalfa hay Timothy hay			Apply at approximately 14-day intervals beginning after new growth commences and at cutting. [ALTERNATE TEXT]: Apply after new growth commences and at each cutting. For newly seeded crops begin at first true leaf.
CORN (grain, silage or popcorn)			Apply at approximately 14-day intervals beginning at new growth. [ALTERNATE TEXT]: Apply after complete emergence during vegetative growth phase.
OIL AND SEED CROPS Such as: Canola Jojoba Mint Safflower Sesame Sunflower			Begin applications at new growth, followed at approximately 14-day intervals through harvest. [ALTERNATE TEXT]: Apply after complete emergence during vegetative growth phase.
ROOT CROPS Such as: Beets Carrots Ginger Root Ginseng Parsnips Radish Rutabagas Turnips			Apply at approximately 14-day intervals beginning at new growth. [ALTERNATE TEXT]: Apply after complete emergence during vegetative growth phase.
RICE SMALL GRAINS Such as: Barley Flax Oats Rye Wheat			Apply at approximately 14-day intervals beginning at new growth. Apply as needed for wheat sheath blight. [ALTERNATE TEXT]: Apply after complete emergence during vegetative growth phase.
SORGHUM SUGARCANE			Apply at approximately 14-day intervals beginning after new growth commences or after each cutting.

Messenger is recommended to aid in the management of the following diseases:
 Peanut leaf spot diseases (*Cercospora sp.* and *Cercosporidium sp.*).
 Rice stem rot (*Sclerotium oryzae*), bacterial leaf blight (*Xanthomonas oryzae*), and sheath blight (*Rhizoctonia solani*)
 Small Grains: wheat sheath blight (*Rhizoctonia solani*).

Tobacco

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
TOBACCO All types	4.5-13.35	10-200 by ground. Minimum 3 by air.	Apply at approximately 14-day intervals beginning 7 days after transplanting through harvest. [ALTERNATE TEXT]: Begin applications when plants are established. Repeat at 21-28-day intervals as needed

Messenger is recommended to aid in the management of the following diseases:
 Tobacco: blue mold (*Peronospora tabacina*), Fusarium wilt (*Fusarium oxysporum*), tobacco cyst nematode (*Globodera solanacearum*), and TMV (tobacco mosaic virus).

Berries and Small Fruit

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
BERRIES AND SMALL FRUIT Such as: Blackberry Blueberry Boysenberry Cranberry Current Raspberry Strawberry	2.25-13.35	10-200 by ground. Minimum 3 by air.	Apply at approximately 14-day intervals while plants are actively growing, beginning in the greenhouse or nursery, and after transplanting, as appropriate. For fall transplanted strawberries resume applications in spring. [ALTERNATE TEXT] Begin applications when plants are established. Repeat at 21-28-day intervals as needed

Messenger is recommended to aid in the management of the following diseases:
 Raspberry: *Botrytis (Botrytis cinerea)*.
 Strawberry: *Botrytis cinerea* and *Fusarium wilt (Fusarium oxysporum)*.

Trees and Vines

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
AVOCADO	6.67-13.35	10-200 by ground. Minimum 3 by air.	Apply at approximately 14-day intervals beginning at new growth. [ALTERNATE TEXT]: Apply at 21-35-day intervals beginning before bloom initiation
CITRUS Such as: Grapefruit Mineolas Lemon Lime Orange Pumelo Tangelo Tangerine			Apply at approximately 14-day intervals beginning at new growth. [ALTERNATE TEXT]: Apply at 21-35-day intervals beginning before bloom initiation
NUT TREES Such as: Almond Filbert Macadamia Pecan Pistachio Walnut			Apply at approximately 14-day intervals beginning at new growth. [ALTERNATE TEXT]: Apply at 21-35-day intervals beginning before bloom initiation
POME FRUIT Apple Pear			Apply 2 pre-bloom sprays beginning at new growth and again 7-10 days later, followed by post-bloom sprays at approximately 14-day intervals. [ALTERNATE TEXT]: Apply at 21-35-day intervals beginning before bloom initiation.
STONE FRUIT Such as: Cherry Olive Nectarine Peach Plumb Prune			Apply 2 pre-bloom sprays beginning at new growth and again 7-10 days later, followed by post-bloom sprays at approximately 14-day intervals. [ALTERNATE TEXT]: Apply at 21-35-day intervals beginning before bloom initiation.
VINE CROPS Such as: Grape (juice, raisin, table, and wine) Kiwifruit Hops	4.5-13.35	10-200 by ground. Minimum 3 by air.	Apply at approximately 14-day intervals beginning when new shoot growth is present. Under moderate to heavy disease pressure alternating or tank mixing with other products is recommended. [ALTERNATE TEXT]: Apply at 21-28 day intervals beginning when new shoot growth is present.
TREES Conifer Broadleaf	6.67-13.35	10-200 by ground. Minimum 3 by air.	Apply at approximately 14-day intervals beginning after complete emergence

Messenger is recommended to aid in the management of the following diseases:
 Apple: apple scab (*Venturia inaequalis*) and fire blight (*Erwinia amylovora*).
 Citrus: bacterial leaf spot (*Xanthomonas campestris pv citrumelo*), citrus scab (*Elsinoe fawcettii*), greasy spot (*Mycosphaerella citri*), and Alternaria brown spot (*Alternaria alternata pv citri*). Post-harvest diseases such as citrus green mold (*Penicillium digitatum*) and citrus blue mold (*Penicillium italicum*).
 Grapes: *Botrytis bunch rot (Botrytis cinerea)*, powdery mildew, and black rot (*Gugnardia bidwellii*).
 Pear: fire blight (*Erwinia amylovora*).
 Trees: *Botrytis gray mold (Botrytis cinerea)*.

Messenger is recommended to boost overall production of citrus.

Turf and Ornamentals

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
TURF	2-6.75	10-200 by ground. Minimum 3 by air.	Apply at approximately 14-day intervals beginning 14 days after full emergence. [ALTERNATE TEXT]: Apply after complete emergence during vegetative growth phase. Repeat at 21-28-day intervals as needed.
ORNAMENTALS Such as: Fresh Cut Flowers Bedding Plants Green Foliage Plants Woody Ornamentals Rose	6-9	10-200 by ground. Minimum 3 by air.	Apply at approximately 14-17 day intervals once plants have initiated bud/leaf, fully leafed out, or beginning approximately 7 days after transplant and/or potting/repotting. For roses, begin applications 7 days after grafted cuttings are planted and continuing at approximately 14-17 day intervals. [ALTERNATE TEXT]: Begin applications prior to first bloom. Repeat at 21-28-day intervals or as needed.

Messenger is recommended to aid in the management of the following diseases:
 Fresh cut flowers, bedding plants, green foliage plants, and woody ornamentals: bacterial leaf blight (*Xanthomonas campestris pv. pelargonii*).
 Rose: black leaf spot (*Diplocarpon rosae*)

Specialty Crops

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
ALOE BANANA COFFEE FIGS HERBS Such as: Basil Chives Cilantro MANGO PAPAYA PINEAPPLE TARO ROOT	2.25 - 13.35	10-200 by ground. Minimum 3 by air.	Apply at 14-day intervals beginning 7 days after new growth/new spring growth is initiated.

Grasses Grown For Seed

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
TURF GRASSES Such as: Blue Grasses Fescues Rye Grasses FORAGE GRASSES Such as: Fescues Orchard Grasses Timothy Bromes Wheat Grasses Other Native Species	2.25 - 9	10 - 200	Apply at 14-day intervals beginning 14 days after full emergence.

Pre-harvest Applications for Post-harvest Benefits

Crop	Rate (Oz/Acre)	Dilution (Gal/Acre)	Timing
Any Crop Listed Elsewhere on this Label	6-10	20-200 by ground. Minimum 3 by air.	Apply 5-14 days before harvest. Use higher rates if no previous applications have been made.

Messenger is recommended to aid in the management of the following diseases:
 Citrus: Post-harvest diseases such as citrus green mold (*Penicillium digitatum*) and citrus blue mold (*Penicillium italicum*).

STORAGE AND DISPOSAL

GENERAL

Do not contaminate water, food, or feed by storage and disposal. Keep product away from exposure to air, sunlight, moisture, or heat. Use product within 3 weeks of opening and within 8 hours of mixing.

STORAGE

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

DISPOSAL OF PRODUCT

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

DISPOSAL OF CONTAINER

Completely empty bag into application equipment. Then 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.

LIMIT OF WARRANTY AND LIABILITY

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 should 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. All of the aforementioned risks are beyond the control of EDEN BIOSCIENCE Corporation and the Buyer shall assume all such risks.

EXCLUSIVE WARRANTIES

EDEN BIOSCIENCE Corporation warrants that at the time of first sale of this product it conforms to the chemical description on the label and under normal conditions is reasonable fit for the purposes referred to in the Directions for Use, subject to inherent risks referred to above. 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 EDEN BIOSCIENCE Corporation. TO THE EXTENT ALLOWED BY 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 full extent allowed by law, EDEN BIOSCIENCE Corporation 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 EDEN BIOSCIENCE Corporation 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 EDEN BIOSCIENCE Corporation. This disclaimer of liability for damages will not be affected if any remedy provided herein fails of its essential purpose.

ASSUMPTION OF RISK

Buyer and Users 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 this product as set forth above. EDEN BIOSCIENCE Corporation 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 EDEN BIOSCIENCE Corporation.

PROMPT NOTICE OF CLAIM

EDEN BIOSCIENCE Corporation 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. Unless Buyer and Users shall promptly notify EDEN BIOSCIENCE of any claims, they shall be barred from obtaining any remedy.

TANKS MIXES

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

LIMITED USE LICENSE AND PATENTS

The contents of this package and/or the use of the contents are covered by U.S. Patent Nos. 5,849,868, 5,859,324, 5,776,888, 5,977,060, and 6,277,814 as well as pending patent applications. The purchase of this package grants the Buyer a license, under these patents and patent applications, to use its contents only for treating plants, plant seeds, and other plant parts as described herein.

© 2004 EDEN BIOSCIENCE Corporation. Messenger®, and EDEN BIOSCIENCE® are registered trademarks of EDEN BIOSCIENCE Corporation. Always read and follow label instructions before buying or using this product.

6/8

Section B. Commercial Seed Treatment

PPE and User Safety Recommendations are not required for this section but are included as product stewardship

Messenger® Seed Treatment

A Seed Treatment for Yield Enhancement

FOR USE ONLY BY
COMMERCIAL SEED TREATMENT FACILITIES

Wettable Dry Granule

ACTIVE INGREDIENT:

Harpin Protein: 3.0%

OTHER INGREDIENTS: 97.0%

Total: 100%

EPA Reg. No. 69834-2

EPA Est. No. 69834-WA-001

KEEP OUT OF REACH OF CHILDREN

CAUTION



Net Weight: _____

EDEN BIOSCIENCE Corporation
3830 Monte Villa Parkway, Ste. 100, Bothell, WA 98021-7266
1-888-879-2420 • www.edenbio.com

Read the entire label before using this product.

Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using.
If terms are not acceptable, return at once unopened.

PRECAUTIONARY STATEMENTS

HAZARD TO HUMANS & DOMESTIC ANIMALS

CAUTION

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Shoes and socks.
- Particulate dust mask, when mixing.

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using toilet.

ENVIRONMENTAL HAZARDS

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 cleaning equipment or disposing of equipment washwaters.

DIRECTIONS FOR USE

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

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.

GENERAL INSTRUCTIONS

GROWTH ENHANCEMENT

Use Messenger to increase plant health and vigor, and to enhance crop quality and production.

USE ADVISORIES

COLORING

Treated seeds must be discolored before being sold.

MIXING WITH OTHER SEED TREATMENT PRODUCTS

Mixing this product with any other product, which is not specifically and expressly authorized by EDEN BIOSCIENCE shall be the exclusive risk of the User, Applicator, and/or Application Advisor. Read and follow the entire label of each product to be used in combination with this product.

USE PROMPTLY

Use product within 8 hours of mixing into water. Reseal opened packets to minimize exposure to air and moisture. Use opened packets within 3 weeks.

MIXING INSTRUCTIONS

Mix Messenger as follows:

- Add water to the mix tank and provide gentle agitation.
- Add the required amount of Messenger. Agitate until dissolved and avoid excessive foaming.
- Apply promptly.

APPLICATION INSTRUCTIONS

Messenger may be applied as a seed treatment by commercial seed treatment facilities. Mix thoroughly and treat seed. Use application rates as specified on crops listed below. Messenger may be mixed with some other commercial seed treatments. Use of the resulting mix must be in accordance with the more restrictive label limitations and precautions. Allow treated seeds to dry as appropriate before bagging.

CROPS AND APPLICATION RATES

Vegetable Crops

Crop	Rate
LEAFY and COLE CROPS Such as: Bok Choy, Broccoli, Cabbage, Cauliflower, Celery, Chard, Lettuce, and Spinach	0.35-5.00 oz per 100 lbs seed
BULB VEGETABLES Such as: Onion, Garlic, and Scallion	
SWEET CORN	

Field Crops

Crop	Rate
CORN Such as: Grain, Silage, and Popcorn	0.35-5.00 oz per 100 lbs seed
COTTON	
FORAGE CROPS Such as: Alfalfa Hay and Timothy Hay	
LEGUME VEGETABLES Such as: Dry Beans, Dry Peas, Lentils, and Soybeans	
LEGUME FRESH and WET PROCESSING VEGETABLES Such as: Peas, Green bean, and Snap beans	
OIL and OIL-SEED CROPS Such as: Canola (rape seed), Jojoba, Mint (peppermint and spearmint), Safflower, Sesame, and Sunflower	
PEANUT	
ROOT CROPS Such as: Beets, Carrots, Ginger Root, Ginseng, Parsnips, Radish, Rutabagas, and Turnips	

TUBER CROPS Such as: Potato, Sweet Potato, and Yams	
---	--

Small Grain Crops

Crop	Rate
RICE	0.35-5.00 oz per 100 lbs seed
SMALL GRAINS Such as: Barley, Flax, Oats, Sorghum, Rye, and Wheat	

Trees and Vines

Crop	Rate
TREES Such as: Conifer and Broadleaf	0.35-5.00 oz per 100 lbs seed

Grasses Grown For Seed

Crop	Rate
TURF GRASSES Such as: Blue Grasses, Fescues, and Rye Grasses	0.35-5.00 oz per 100 lbs seed
FORAGE GRASSES Such as: Fescues, Orchard Grasses, Timothy's, Bromes, Wheat Grasses, and Other Native Species	

STORAGE AND DISPOSAL

GENERAL

Do not contaminate water, food, or feed by storage and disposal. Keep product away from exposure to air, sunlight, moisture, or heat. Use product within 3 weeks of opening and within 8 hours of mixing.

STORAGE

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

DISPOSAL OF PRODUCT

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

DISPOSAL OF CONTAINER

Completely empty bag into application equipment. Then 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.

LIMIT OF WARRANTY AND LIABILITY

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 should 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. All of the aforementioned risks are beyond the control of EDEN BIOSCIENCE Corporation and the Buyer shall assume all such risks.

EXCLUSIVE WARRANTIES

EDEN BIOSCIENCE Corporation warrants that at the time of first sale of this product it conforms to the chemical description on the label and under normal conditions is reasonable fit for the purposes referred to in the Directions for Use, subject to inherent risks referred to above. 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 EDEN BIOSCIENCE Corporation. TO THE EXTENT ALLOWED BY 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 full extent allowed by law, EDEN BIOSCIENCE Corporation 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 EDEN BIOSCIENCE Corporation 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 EDEN BIOSCIENCE Corporation. This disclaimer of liability for damages will not be affected if any remedy provided herein fails of its essential purpose.

ASSUMPTION OF RISK

Buyer and Users 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 this product as set forth above. EDEN BIOSCIENCE Corporation 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 EDEN BIOSCIENCE Corporation.

PROMPT NOTICE OF CLAIM

EDEN BIOSCIENCE Corporation 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. Unless Buyer and Users shall promptly notify EDEN BIOSCIENCE of any claims, they shall be barred from obtaining any remedy.

TANKS MIXES

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

LIMITED USE LICENSE AND PATENTS

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

© 2004 EDEN BIOSCIENCE Corporation. Messenger® and EDEN BIOSCIENCE® are registered trademarks of EDEN BIOSCIENCE Corporation. Always read and follow label instructions before buying or using this product.

8/8

Section C. Non-Agricultural Use

This product is Toxicity Category IV for all routes of exposure, thus the inclusion of PPE is not a requirement for non-WPS uses such as this section.

Messenger®

[OPTIONAL TAG LINES – For use individually or in combination on labels and/or accompanying materials:

- Home, Yard & Garden
- A Biochemical Plant Activator For Healthier Plants
- Promotes Plant Growth
- Helps Manage Disease
- For Home and Garden Use
- For Healthier Plants
- Healthier Plants
- Better Blooms
- Larger Harvests
- Promotes Plant Growth for Superior Gardens
- Breakthrough Technology
- Improves the health of every plant you grow!
- Improves the health of every plant in your garden!
- Improves the health of every plant you grow in your Garden!
- Fruits • Garden Flowers & Shrubs • House Plants • Vegetables
- Boost overall growth and production
- Improve plant stamina & vigor
- Strengthen a plant's resistance to disease
- Mix and Spray, or Simply Mix and Spray, or Mix and Spray Every Three Weeks, or Simply Mix and Spray Every Three Weeks]

ACTIVE INGREDIENT:

Harpin Protein: 3.0%
 INERT INGREDIENTS: 97.0%
 Total: 100%

EPA Reg. No. 69834-2 EPA Est. No. 69834-WA-001
 [ALTERNATE RE-PACKER'S EPA Est. No.: 75447-CA-001]

KEEP OUT OF REACH OF CHILDREN



Net Weight: _____

[OPTIONAL – Packed for:]
 EDEN BIOSCIENCE Corporation • 3830 Monte Villa Parkway, Ste100
 Bothell, WA 98021-7266
 1-888-879-2420 [And/Or] www.edenbio.com

[OPTIONAL] See Back Panel for additional precautionary statements

FRONT PANEL (ABOVE)

BACK PANEL (BELOW)

DIRECTIONS FOR USE

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

Messenger is derived from a naturally occurring protein (harpin). [REMAINDER OF SENTENCE OPTIONAL: that activates plant growth systems and harnesses the plants' ability to defend themselves against disease and withstand other stresses.] Messenger stimulates a plant's growth and defense mechanisms to improve the plant's ability to grow and protect itself from stresses caused by adverse environmental conditions. Use Messenger to boost overall plant growth, vigor, and production, and to aid in the management of disease.

Messenger may be used on all plants grown indoors and outdoors, including Roses and other Flowers, Vegetables, Fruiting Trees, Berries, Vines, Herbs, Root Crops, and all ornamental plants such as Trees, Shrubs, and Turf.

People and Pets may enter treated areas after spray has dried.

Wash your hands after use.

Mixing and Application Instructions

1. Add one packet (0.35 oz.) to 3 gallons of water [ALTERNATE LANGUAGE FOR SMALL PACKET: Add one packet (0.12 oz.) to 1 gallon of water] (¼ teaspoon per quart of water) and mix thoroughly.
2. Apply mixed product to plant foliage with a pump sprayer, mister, watering can, or other suitable applicator.
3. Apply when plants are actively growing. For best results, continue applications every 3 weeks through harvest, until first frost, or until plants become dormant.
4. Apply mixed product within 4 hours. Re-apply if it rains within 30 minutes of application.
5. Reseal opened packets to minimize exposure to air and moisture. Use opened packets within 3 weeks.

STORAGE AND DISPOSAL

Store dry and out of direct sunlight. Do not store in temperatures over 110° F for more than 7 days. If Empty: Do not reuse this container. Place in trash or offer for recycling if available. If Partly Filled: Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

PRECAUTIONARY STATEMENTS

ENVIRONMENTAL HAZARDS: Do not apply directly to bodies of water. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

NOTICE: Buyer assumes all responsibility for safety and use not in accordance with directions.

The contents of this package and/or the use of the contents are protected by U.S. Patent Nos. 5,849,868, 5,859,324, 5,776,889, 5,977,060, and 6,277,814. REFORMULATION OR REPACKAGING FOR SALE IS PROHIBITED. © 2004 EDEN BIOSCIENCE Corporation. Messenger®, and EDEN BIOSCIENCE® are registered trademarks of EDEN BIOSCIENCE Corporation. Always read and follow label instructions before buying or using this product.

[ALTERNATE LOCATION for Address/Phone/Website]

[OPTIONAL – Packed for:] EDEN BIOSCIENCE Corporation, 3830 Monte Villa Parkway, Ste. 100, Bothell, WA 98021-7266.

OPTIONAL LANGUAGE for labels and accompanying materials:

MAY BE USED UP TO THE DAY OF HARVEST

What does Messenger do?

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

Use Messenger to increase plant health and vigor, and aid in the management of disease, such as: bacterial leaf spot, black leaf spot, Botrytis, Fusarium wilt, and powdery mildew

[BARCODE]

04.0108 US-Master[NOTIF] M3[AG,ST,H&G]

