

ARMOREX™

Suggested Use: Natural Nematicide, Fungicide, Insecticide, Miticide

For: All crops including Fruits, Vegetables, Herbs, Nuts, Berries, Grains, Turfgrass, Flowers, Shrubbery, Trees, Other Ornamental Crops.

INGREDIENTS

Actives:

Sesame oil.....5.00%
Clove oil.....1.00%

Inerts:

Sunflower oil, Horseradish oil, Polyglyceryl oleate.....94.00%
Total.....100.00%

ARMOREX is manufactured in compliance with EPA-Minimum Risk Pesticide Regulation 40CFR 152.25 and as such is exempt from registration.

ARMOREX is exempt from a tolerance per USA EPA Reg. Title 40CFR



Manufactured By:
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WARRANTY: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use; but neither this warranty nor any other warranty of merchantability or fitness of a particular product expressed or implied, extends to the use of this product contrary to label conditions, or under conditions not reasonably foreseeable to the seller, and buyer assumes the risk of any such use.

NET VOLUME/WEIGHT:

English Measures: 1.0 quart, 1.0 gallon, 2.5 gallons, 15 gallons, 55 gallons, or 275 gallons.

One Gallon equals 128 ounces

Metric Measures: 1.0 liter, 4 liters, 20 liters, 200 liters, or 1000 liters.

One liter equals 952 grams

EXPIRATION DATE: 2 years from the date of packing

ARMOREX™

SHAKE WELL BEFORE USING

KEEP OUT OF REACH OF CHILDREN

CAUTION

Harmful if swallowed. Avoid breathing spray mist. May cause irritation of eyes, nose, throat and/or skin. Avoid contact with eyes, skin and clothing. Wear protective eyewear and chemical gloves and approved respiratory protection when applying this product.

REI and PHI RESTRICTIONS

REI: Re-Entry Interval

Greenhouse Soil Treatment: 2 hours

Greenhouse Aerial Treatment: 6 hours

Outdoor Treatment, Soil or Aerial: Zero hours

PHI: Pre-Harvest Interval: 24 hours

FIRST AID

IF IN EYES: Flush eyes with plenty of water.

IF ON SKIN: Wash with soap and water.

IF SWALLOWED: Drink plenty of water.

IF VAPOR IS INHALED: Remove to fresh air.

Get medical attention if irritation persists.

NOTICE: Distributor and Manufacturer DISCLAIM all crop liability for all product users when product is used in a manner inconsistent with labeling.

AGRICULTURAL USE IN SOILS

GENERAL: ARMOREX kills and repels soil nematodes, fungi, and insects listed below. Use this product in accordance with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Suggested clothing for applying ARMOREX is: Respiratory protection, face mask, coveralls, long sleeve shirt, chemical gloves, shoes, and socks. For any requirement specific for your state or tribe, consult the agency responsible for pesticide regulation.

PRIOR TO TREATING SOIL: It is imperative to always have an assistant and proper protective equipment in case of accidents. Drivers of application equipment must advise other workers of all precautions and procedures. In addition, drivers must instruct their helpers in the mechanical operation of the equipment and how to safely work with the equipment while treating soil.

Handle ARMOREX in the open where there is good ventilation.

Check for leaks before beginning operation.

SPILL AND LEAK PROCEDURES FOR SOIL TREATMENT: In case of a rupture of hose or fitting while applying ARMOREX immediately stop application equipment and motor. Wear personal protective equipment. Approach from upwind to make necessary repairs.

ARMOREX™

SOIL PEST AND DISEASE AGENTS CONTROLLED:

PLANT PARASITIC NEMATODES: Including *Meloidogyne* spp. (Root-Knot), *Hoplolaimus* spp. (Lance), *Belolaimus* spp. (Sting), *Criconemoides* spp. (Ring), *Helicotylenchus* spp. (Spiral), *Pratylenchus* spp. (Lesion).

PLANT PATHOGENIC FUNGI, INCLUDING: *Pythium*, *Rhizoctonia*, *Fusarium*, *Phytophthora*, and others.

PESTS IN THE SOIL AT THE TIME OF TREATMENT INCLUDING: Wire worms, cut worms, white grubs, snails, and others.

FARM FIELD SOIL TREATMENT

PRE-TREATMENT SOIL PREPARATION:

Plow or rip the soil to the depth to which effective treatment is required. The soil should be worked until free of clods. Residue from previous crops should be worked into the soil to allow for decomposition prior to treating soil. To ensure maximum spray penetration, there should be some moisture present throughout the soil to the depth to be protected. (The soil moisture at the time of application should be at least in the range of 40-50% of field capacity.) For best results, treat soil when the soil temperature is above 45°F (7°C).

APPLICATION METHODS:

Band Spray Applied (Beds):

Apply by band spraying the treatment, as a part of building a bed. May be split applied and sprayed into different layers of bed during preparation process. May be applied at the end of the bed preparation process. After spraying the soil with the treatment, put down drip line and pull plastic. Use the drip line to irrigate the bed, complete incorporation of the treatment, and move the product into the soil to the depth to be protected. **DO NOT OVER OR UNDER IRRIGATE.**

Injection Applied (Beds):

Apply ARMOREX through the injection system in the irrigation line. This is after the final pass with bedding equipment and after irrigation line and plastic are installed. Adjust the injection (time vs volume injected) so that the product is uniformly distributed through the beds. After injection, further irrigate the beds, to clean the lines, complete incorporation of the treatment, and move the product into the soil to the depth to be protected. **DO NOT OVER OR UNDER IRRIGATE.**

Surfactants may be used in the tank mix of ARMOREX with water, to aid incorporation into the soil matrix. As a precaution, do a bottle test with water, ARMOREX and the surfactant to test for basic compatibility.

DOSAGES FOR SOIL TREATMENT:

PRE-PLANT TREATMENTS – Field and Greenhouse Crops

Applicable to open fields or greenhouses. The treated areas should remain undisturbed for a minimum of 3 days following application of ARMOREX. Wait a minimum of 3 days before planting or transplanting.

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PRE-PLANT DOSAGES:

Metric:

2.0 ml/m²
2.0 L/1000 m²
20 L/hectare

English:

6.2 oz per 1000 ft²
2.1 gallons/acre

The pre-plant utilization of ARMOREX may be combined with soil solarization.

POST-PLANT TREATMENTS – Field and Greenhouse Crops

Applicable to open fields or greenhouses. Use a post-plant application of ARMOREX when nematode activity is observed during the post-plant time period. Frequency should be two or three applications, two weeks apart. Start the post-plant applications at early stage indications of new nematode infestations.

POST-PLANT DOSAGES:

Metric:

0.15 – 0.30 ml/m²
150 – 300 ml/1000 m²
1.5 – 3.0 L/hectare

English:

0.5 – 1.0 oz/1000 ft²
21 – 42 oz/acre

For cucumbers, and other delicate plants, use the lower dosage.

Use the injection into the drip irrigation line method of application, see above information.

DRENCH APPLIED:

For larger plants (example: trees, shrubs, and bushes). Assumes no plastic used to cover the treated area. Assumes mechanical or manual application procedure. Apply product above at the rate of 1.0 oz per 1000 square feet (0.3 ml/m²) of applied surface area to treat the first 8 inches (20 cm) of soil depth. Adjust to larger proportionate dosages to treat deeper levels of the soil profile. Apply product first and then drench into target zone or apply product in the drench water. Repeat as necessary every 30-60 days to control pest.

TEMPERATURE:

The most effective ambient temperature range for application is 12° to 35°C (55° to 95°F).

PALM TREE INJECTION

Estimated tree sizes: Small = +/- 20 cm DBH*; Medium = +/- 40 cm DBH; Large = +/- 60 cm DBH

*DBH = tree diameter at breast height

Injections to be made into the trunk, near the site(s) of insect damage.

Small Tree: 80 ml
Med. Tree: 120 ml
Large Tree: 160 ml

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INSECT CONTROL

ARMOREX kills insects on contact and repels over time.

GENERAL INSECTS: Weevils, beetles, bollworm, chinch bugs, fleas, crickets, *Lepidoptero* spp. mites, thrips, armyworms, white flies, scale, mealy bugs, fruit flies, green bugs, ants, and wasps.

GENERAL CROPS: For fruits, vegetables, nuts, berries, grains, flowers, shrubbery, ornamentals, nursery crops, greenhouse crops, turfgrasses, and lawns.

It is recommended to always test the selected dosage or dilution on a small area for any crop prior to treating the entire area, to observe for phytotoxicity.

DILUTION RATE APPLICATIONS FOR INSECT CONTROL:

General Dilution Rate for Insect Control: 0.3 – 1.0%.

EXAMPLES OF DILUTION RATES FOR INSECT CONTROL				
METRIC			STANDARD	
Water	ARMOREX		Water	ARMOREX
100 L	0.3 L - 1.0 L		10 gal	3.8 fl oz - 12.8 fl oz
500 L	1.5 L - 5.0 L		50 gal	19.2 fl oz - 64 fl oz
100 L	3.0 L - 10.0 L		100 gal	38.4 fl oz - 128 fl oz

Depending on climatic conditions, time of year or season, local conditions, plant size, and insect pressure, lower rates may be effective, or higher rates may be required.

Lower rates should always be used for delicate plants, such as cucumbers, which may be at risk for phytotoxicity.

DOSAGE RATE APPLICATIONS FOR INSECT CONTROL:

GENERAL DOSAGE RANGE (based on delivering 100 L of water / ha or 10 gal of water / ac), depending on plant size and cubic area within which insect control is administered:

- 300 ml – 1 L ARMOREX per hectare or 3.8 fl oz – 12.8 fl oz ARMOREX per acre

GENERAL INSECTS: Weevils, beetles, bollworm, chinch bugs, fleas, crickets, *Lepidoptero* sp. mites, thrips, armyworms, white flies, scale, mealy bugs, fruit flies, green bugs, ants, and wasps.

CROPS: For fruits, vegetables, nuts, berries, grains, flowers, shrubbery, ornamentals, nursery crops, greenhouse crops, turfgrasses, and lawns.

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SPECIFIC CROP PESTS:

Grapes:

Grape mealybugs, *Pseudococcus viburni*

Rice:

Rice leafhopper, *Nephotettix* spp

Rice delphacid, *Tagosodes oryzicolus*

Rice stem-borer, *Elasmopalpus* spp

Swarming caterpillar, *Spodoptera* spp

Stem-borer, *Diatraea* spp

Striper grassworm looper, *Mocis latipes*

Stink bug, *Oebalus insularis*

Burrowing bug, *Cyrtomenus* spp

Tomato:

Tomato leaf miner, *Tuta absoluta*

Pineapple:

Cochineal, *Dactylopius coccus*

Symphylans, *Hanseniella* spp. and others

Palm Tree:

Red palm weevil, *Rhynchophorus ferrugineus* (Curculionidae Coleoptera)

MITE CONTROL: Citrus mites, red spider mites, cucumber mites, hemp russet mites, two spotted mites, and others.

Mix in the volume of water most appropriate for the type of mechanical or manual spray machinery utilized in the application, in order to provide uniform coverage and distribution in the three-dimensional treatment zone. Small drop size is recommended.

GENERAL APPLICATION INSTRUCTIONS: Apply early in the morning or late in the afternoon. DO NOT apply in the mid-day. Spray directly onto pest(s) in order to maximize effectiveness. Thorough spray coverage is essential for good pest control. ARMOREX is compatible with most surfactants and conventional pesticides. The most effective ambient temperature range for application is 55-95° F (12-35° C). DO NOT mix ARMOREX with oxidizing agents such as bleach, bases, or strong acids as they will destabilize the product. Before attempting to tank mix ARMOREX, a jar test is recommended.

TURF AND ORNAMENTAL USE

TARGET CROPS: Turfgrass, flowers, shrubs, trees, evergreens, vines, and other ornamentals.

It is recommended to always test the selected dosage on a small area for any crop prior to treating the entire area, to observe for phytotoxicity.

APPLICATION METHODS:

GOAL: ARMOREX should be mixed with water and applied in a manner to provide complete and uniform coverage. To obtain maximum benefits, apply as directed. ARMOREX is compatible with most surfactants and conventional pesticides.

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For best results, apply ARMOREX before and during each growing season. ARMOREX should be applied at 3-4 week intervals in the spring, summer, and fall. It may be necessary to make additional intermittent applications, based on the severity of the infestation and the turf conditions.

Due to the risk of phytotoxicity, only apply ARMOREX in the early morning or late evening, particularly during warmer weather.

GROUND MACHINE APPLICATION FOR TURF APPLICATION:

Set the equipment for the diluted product to penetrate the soil up to two inches (5 cm) or, immediately after applying product, irrigate for one full turn to penetrate the soil up to two inches (5 cm). For best results, begin ARMOREX applications as a preventative treatment prior to an insect infestation, and then continue use as needed.

Commercial Turfgrass (golf course greens and tees); Recreational Turfgrass (sports fields, etc.): Dilute 2.0 gallons of ARMOREX in 50-100 gallons of water per acre (19 L / 475-950 L / hectare).

Trees, Shrubs, and Turfgrass (golf course fairways and lawns): Dilute 1.5 gallons of ARMOREX in 100 gallons of water per acre (14.2 L / 950 L / hectare).

Ornamental, Flower, and Foliage Plant Crops: Dilute 1 gallon of ARMOREX in 100 gallons of water per acre (9.5 L / 950 L / hectare).

Turf Renovation: ARMOREX may be applied at a higher rate during turf renovation. After existing turf is removed, but prior to re-sodding, seeding, or sprigging, dilute 4 gallons of ARMOREX in 50-100 gallons of water per acre (38 L Armorex / 475-950 L / water per hectare).

Immediately after application, further irrigate the soil, to clean the lines, complete incorporation of the treatment, and move the product into the soil to the depth to be protected. DO NOT OVER OR UNDER IRRIGATE. Wait a minimum of 4 days before re-sodding, seeding, or sprigging.

HAND APPLICATION DIRECTIONS FOR SOIL APPLICATION:

Commercial Turfgrass (golf course greens and tees), Recreational Turfgrass (sports fields, etc.): Dilute 2.5 oz of ARMOREX in 1 gallon of water. Apply 2.3 gallons of diluted ARMOREX mixture per 1000 square feet (190 cc ARMOREX / 4.75 L water / 100 square meters).

Trees, Shrubs, and Turfgrass (golf course fairways and lawns): Dilute 1.9 oz of ARMOREX in 1 gallon of water. Apply 2.3 gallons of diluted ARMOREX mixture per 1000 square feet (142 cc ARMOREX / 9.5 L water / 100 square meters).

Ornamental, Flower, and Foliage Plant Crops: Dilute 1.3 oz of ARMOREX in 1 gallon of water. Apply 2.3 gallons of diluted ARMOREX mixture per 1000 square feet (95 cc ARMOREX / 9.5 L water / 100 square meters).

Immediately after application, further irrigate the soil, to clean the equipment, complete incorporation of the treatment, and move the product into the soil to the depth to be protected. DO NOT OVER OR UNDER IRRIGATE.

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DRUMS AND TANKS - STORAGE AND DISPOSAL

STORAGE AND HANDLING: Store in dry, cool, and well-ventilated area. Post as a pesticide storage area. Do not contaminate water, food, or feed by storage. Persons moving, handling, or opening containers should wear the personal protective equipment. Open container only in a well-ventilated area.

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

CONTAINER DISPOSAL: Rinse container thoroughly, then offer for recycling or re-conditioning. Puncture and dispose of in a sanitary landfill or incineration, or if allowed by state and local authorities, by burning. If burned, stay away and out of smoke.

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