

# **iMPACT SIX**

**Nematicide • Fungicide • Bactericide • Biostimulant**

Impact SIX provides effective control/ suppression of plant-parasitic nematodes in the soil and of listed soil and foliar fungal pathogens. Impact SIX works with plant natural defense systems and soil biology to deter insect feeding, laying, and establishment as well as combat diseases caused by plant viruses.

Impact SIX can be applied as a foliar spray, in furrow, irrigation to turf, fruit, vegetables, ornamentals, row crops, nut crops, seed treatment and residential uses. Refer to package insert for details.

The active chitosan ingredient in Impact SIX stimulates the plant's ability to combat both biotic and abiotic stresses as well as contribute to the overall enhancement of plant health, productivity and stamina.

**Active Ingredients:**

Chitosan .....	6.0%
Other Ingredients: (Water, Citric Acid, Potassium Chloride, Potassium Sorbate) .....	<u>94.0%</u>
Total: .....	100.0%

The Pre-Harvest Interval (PHI): 0 days

1.0 Gallon / 3.785L     2.5 Gallons / 9.464L     5.0 Gallons / 18.928L

Exclusively manufactured for:



P.O. Box 2085 • Carrollton, GA 30112  
337-445-3657 • organisancorp.com

Lot #:

State Reg #:



Made in U.S.A

Impact SIX is a 25(b) product qualifies for exemption from EPA registration under Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)

Label Version: 2003-L-001



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Table with 2 columns: FIRST AID and HOT LINE NUMBER. Includes instructions for eye contact and emergency contact information.

KEEP OUT OF REACH OF CHILDREN CAUTION / PRECAUCION

May be irritating to eyes and skin. Do not get in eyes or on clothing. Wear goggles or face shield. After product is diluted in accordance with the directions for use, goggles or face shield is not required. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. See this package insert for directions for use, application guidance and target species information. Refer to SDS for specific Safety and First Aid information.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Store in a cool dry place. Avoid freezing. To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program. Nonrefillable container. Do not reuse or refill this container. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances.

NOTICE ON CONDITIONS OF SALE

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability. The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Seller. All such risks shall be assumed by the user or buyer. To the extent consistent with applicable law, Seller makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Seller is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Seller disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Seller election, the replacement of product.



Made in U.S.A.

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## DIRECTIONS FOR USE

### AGRICULTURAL CROPS: NEMATOCIDAL AND FUNGICIDAL USE INSTRUCTIONS

Impact SIX is a nematocidal and fungicide, for use on agricultural crops against the pests listed below. Apply Impact SIX as a soil treatment to control listed soil-borne nematodes and plant diseases and apply Impact SIX as a foliar spray or as a soil treatment (soil drench, in-furrow, drip-applied) to control listed nematodes and plant diseases. Impact SIX works with plant natural defense systems and soil biology to deter insect feeding, laying, and establishment as well as combat diseases caused by plant viruses.

#### Mixing Directions

Follow manufacturer's guidelines for cleaning spray equipment prior to mixing. Fill tank to desired amount with water, add all other spray components and agitate as directed. Buffer the mixture to pH 5.0 or below before adding Impact SIX. Start the mechanical or hydraulic agitation to provide moderate circulation before adding Impact SIX. Add the desired volume of Impact SIX to the mix tank and the remaining volume of water and continue circulation. Maintain circulation while loading and spraying. (Excessive agitation may lead to foaming of spray solution.) Do not mix more Impact SIX than can be used in 24 hours.

#### Tank Mixing

Do not combine Impact SIX in the spray tank with other pesticides, surfactants, adjuvants, or fertilizers if there has been no previous experience or use of the combination to show it is physically compatible, effective, or non-injurious under your use conditions.

To ensure compatibility of tank-mix combinations they must be evaluated prior to use. 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 one quart of water with agitation. Add dry formulations first, then flowables second, then emulsifiable concentrates last. After thoroughly mixing, let this mixture stand for 5 minutes. If the combination remains mixed or can readily be remixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

#### Nematocidal Application Instructions (Soil and Foliar)

Apply Impact SIX to the soil as a pre-plant, at planting or post-plant soil treatment on annual and perennial crops (refer to Directions for Use Table) alone or applied through drip or border irrigation systems. Best results will be obtained from pre-plant applications close to the actual planting times. The optimal application time must be determined based on the cultural practices and the nematode population dynamics. Impact SIX is formulated to work in synergy with resident soil microflora to enhance an environment that is detrimental to nematodes. For application areas that have undergone recent or multi-season soil fumigant applications for sterilization, initial Impact SIX effectiveness and nematode suppression/control may be impacted. For treatment areas that have recent or multi-season soil fumigant applications, more frequent Impact SIX applications may be needed for optimum nematode population control.

For perennial crops, apply Impact SIX just prior to a root flush to protect young roots. Multiple applications may be required for crops with multiple root flushes. Impact SIX may be applied to and incorporated into the soil. Incorporation may be accomplished by mechanical equipment, irrigation or rainfall. For soil applications made at planting, the action of some planters may provide sufficient incorporation. When using planters which do not provide adequate incorporation of Impact SIX into the soil, equipment designed for incorporation may be used behind the planter.

Close scouting and early attention to infestations is highly recommended. Proper timing of application targeting nematode pressure is important for optimal results.

Impact SIX can be applied to bare soil alone or with most types of pesticides and nutrients prior to planting, at planting, at transplant, in-season, pre- and post-harvest. Apply with a minimum of 10-30 gallons of water per acre to ensure complete coverage. Use a jar test to confirm physical compatibility prior to application. Apply 2-32oz of Impact SIX per acre.

Applications can be made by following methods:

Pest	Application Timing	Application Method	Rate	Comments
Root-lesion nematode <i>Pratylenchus spp.</i> Root-knot nematode <i>Meloidogyne spp.</i> Reniform nematode <i>Rotylenchulus spp.</i> Sting nematode <i>Belonolaimus spp.</i> Stem nematode <i>Ditylenchus spp.</i> Gall nematode <i>Agnouina spp.</i> Soybean Cyst Nematode <i>Heterodera spp.</i> Spiral nematode <i>Helicotylenchus spp.</i> Lance nematode <i>Hoplolaimus spp.</i> Guava nematode <i>Meloidogyne spp.</i> Potato cyst nematode <i>Globodera spp.</i>	Before Planting	Drenching, drip (trickle) or sprinkler application	Apply 2-32oz of product per acre	Pre-plant applications may be either broadcast over an entire field or concentrated (banded) into planting rows. Apply when soil temperature at 4-inch depth is 60°F or higher.  Bioactivity of Impact SIX is greatest at soil temperatures between 70° and 90°F. Apply to nematode-infested (non-fumigated) soil up to 14 days before planting or transplanting. Retreat every 7 to 21 days as needed for control.
	At Planting	Surface spray on moist soil with 40-100 gallons water/acre		
	Transplanting	Surface spray with 20-40 gallons water/acre followed by overhead irrigation. Use enough irrigation water to wet the soil into the root zone.		
	In Season			
	Pre-Harvest	Direct injection to anticipated root depth using shank or other soil injection equipment. Apply with 30-40 gallons water/acre.		
	Post-Harvest			

#### Fungicide Application Instructions (Soil and Foliar)

Apply Impact SIX in sufficient amount of water and adequate spray pressure to achieve thorough coverage of plant surfaces to listed crops to control listed plant and turf diseases, including rot, Phytophthora spp, and Fusarium spp. Impact SIX is most effective when applied before or around the onset of disease occurrence. For application areas that have undergone recent or multi-season soil fumigant applications for sterilization, initial Impact SIX effectiveness and disease suppression/control may be impacted. For treatment areas that have recent or multi-season soil fumigant applications, more frequent Impact SIX applications may be needed for optimum disease control. Apply Impact SIX at a rate of 1-2 pints per acre in a minimum of 10-30 gallons of water to ensure adequate coverage. Ensure that both the top and bottom of leaves are wetted but not to the point of runoff. For optimum results, repeat the applications at intervals of 7 to 21 days. Use higher rates and increase spray frequency when pest pressure is high. Use any powered or manual conventional spray application equipment including high volume, low volume, ultra-low volume, backpack, or chemigation (refer to Chemigation section of the label). For all applications, follow the original equipment manufacturer's instructions.

Plant Disease	Application Timing	Application Method	Rate	Comments
<b>Crop Diseases</b> , including: Rhizoctonia spp. (e.g. <i>R. solani</i> ), Garlic and Onion White Rot, Onion Pink Root Rot, Fusarium spp. (eg <i>F. oxysporium</i> , <i>F. solani</i> , <i>F. graminearum</i> ), <i>Aspergillus spp.</i> , <i>Pseudomonas spp.</i> , <i>Phytophthora spp.</i> , Phytophthora gummosis, Phytophthora Root Rot, Bacterial Soft Rot, Armillaria Root Rot, Bacterial Blast, Sooty Mold, Alternaria, Melanose, Verticillium, Gray Rot, Noble Rot (e.g. <i>B. cinerea</i> ), Botrytis Bunch Rot (e.g. <i>B. cinerea</i> ), <i>Pythium spp.</i> , Pink Rot, Pink Rot, Potato Soft Rot, Early Blight, Late Blight, Bacterial Blight, Downy Mildew, Collar Rot, Stem Rot, Rust, Rhizosphaera Needle Cast, Slime Mold, Ascochyta Leaf Blight	At earliest sign of disease occurrence	In-Furrow, Soil or Foliar Drench, drip (trickle) or sprinkler application pre-plant, post-plant, post-emergence, in-season, pre-harvest Surface spray with 10-30 gallons water/acre	Apply 2-32oz of product per acre	Retreat every 7 to 21 days as needed for control.
<b>Turf and Sod Diseases</b> , including: Curvularia, Leaf Spot, Fairy Ring, Anthracnose, Brown Patch, Gray Leaf Spot, Downy Mildew, Powdery Mildew, Spring Root Dieback, Dollar Spot, <i>Pythium spp.</i> , Summer Patch, Red Thread, Take All Patch, Ascochyta Leaf Blight				

### FOR USE ON THE FOLLOWING CROPS FOR CONTROL/ SUPPRESSION OF SPECIFIED NEMATODES AND PLANT DISEASES

Pre-harvest Interval (PHI) = 0 days

Crop Grouping	Including
Berries and Small Fruit	Bayberry, Bearberry, Bilberry, Blackberry, Blueberry, Buffaloberry, Che, Chilean guava, Chokeberry, Cloudberry, Cranberry, Currant, Elderberry, Gooseberry, Grape, Huckleberry, Kiwifruit, Lingonberry, Loganberry, Mulberry, Raspberry, Strawberry
Brassica (Cole) Leafy Vegetables	Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Broccoli, Chinese Cabbage (Napa), Chinese Mustard Cabbage (Gai Choy), Cauliflower, Cavalo Broccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, and Rape Greens
Bulb Vegetables	Leek, Garlic, Onion (Bulb and Green) and Shallot
Citrus	Lemon, Orange, Lime, Grapefruit, Kumquat, Pummelo, Mandarin, Satsuma
Cucurbit Vegetables	Cucumber, Edible Gourds, Muskmelon, Cantaloupe, Pumpkin, Watermelon, and Winter and Summer Squash
Fruiting Vegetables	Tomato, Tomatillo, Pepper, Ground cherry, Pepino, Okra and Eggplant
Hemp	
Leafy Vegetables	Arugula, Celery, Corn Salad, Cress, Dandelion, Dock, Edible Chrysanthemum, Endive, Fennel, Head Lettuce, Leaf Lettuce, Parsley, Purslane, Radicchio, Rhubarb, Spinach and Swiss Chard
Legume Vegetables (Succulent or Dried)	Bean (Lupinus) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin); bean (Phaseolus) (includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); bean (Vigna) (includes adzuki bean, asparagus bean, blackeye pea, catjang, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean); broad bean (fava); chickpea (garbanzo); guar; jackbean; lablab bean; lentil; pea (Pisum) (includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea); pigeon pea; soybean; soybean (immature seed); sun hemp; sword bean
Ornamentals	Bare root, container bedding and landscape, shade and flowering trees, woody ornamentals

<b>Crop Grouping (Con't)</b>	<b>Including</b>
Pome Fruits	Apple, Crabapple, Loquat, Mayhaw, Pear, Quince
Root and Tuber Vegetables	Artichoke, Black Salsify, Carrot, Cassava, Celeriac, Chayote Root, Chicory, Chinese Artichoke, Edible Burdock, Garden Beet, Ginger, Ginseng, Horseradish, Jerusalem Artichoke, Oriental Radish, Parsnip, Potatoes, Radish, Rutabaga, Salsify, Skirret, Spanish Salsify, Sugar Beet, Sweet Potatoes, Tumeric, Turnip, Turnip-rooted Chervil, Turnip-rooted Parsley and Yams
Root and Tuber Vegetables	Artichoke, Black Salsify, Carrot, Cassava, Celeriac, Chayote Root, Chicory, Chinese Artichoke, Edible Burdock, Garden Beet, Ginger, Ginseng, Horseradish, Jerusalem Artichoke, Oriental Radish, Parsnip, Potatoes, Radish, Rutabaga, Salsify, Skirret, Spanish Salsify, Sugar Beet, Sweet Potatoes, Tumeric, Turnip, Turnip-rooted Chervil, Turnip-rooted Parsley and Yams
Tree Nuts	Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Coconut, Filbert (hazelnut), Hickory nut, Macadamia nut, Pecan, Pine nut, Pistachio, Walnut (black and English)
Tree Nurseries	Christmas trees, Fir, Pine, Oak, Spruce, Noble Fir, Scotch Pine, Balsam Fir, Douglas-Fir, Elm, Ash, Hickory, Poplar, Cedar, Locust, and other tree varieties for commercial use or reforestation
Turfgrass	Ornamental lawns, golf courses, sod farms
Herbs and Spices	Allspice, Angelica, Anise, Star Anise, Annatto, Balm, Basil, Borage, Burnet, Camomile, Caper buds, Caraway, Cardamom, Cassia (buds and bark), Catnip, Celery seed, Chervil, Chive, Cinnamon, Clary, Clove buds, Coriander, Cilantro, Costmary, Cilantro, Cumin, Curry, Dill, Fennel, Fenugreek, Grains of Paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage, Mace, Marigold, Marjoram, Mustard, Nasturtium, Nutmeg, Parsley, Pennyroyal, Pepper (white and black), Rosemary, Rue, Saffron, Sage, Savory, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood
Stalk, Stem, and Leaf Petiole Vegetables	Agave, Aloe Vera, Asparagus, Bamboo shoots, Cardoon, Celery, Celutze, Fennel, Fern, Fuki, Kale, Kohlrabi, Palm hearts, Prickly pear, Rhubarb, Udo, Zuiki
Stone Fruits	Apricot, Capulin, Cherry, Jujube, Nectarine, Peach, Plum, Plumcot, Prune, Sloe

### **CHEMIGATION General Requirements:**

- Apply Impact SIX at 1 – 2 pints per acre as a pre-plant, at planting, post-plant soil treatment for control of nematodes or apply via foliar spray for treatment of listed insects and diseases.
- Apply Impact SIX only through 1) overhead boom and mist-type systems, 2) sprinklers such as center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, impact or micro-sprinklers or hand-move systems, 3) pressurized drench (flood), furrow, border, or drip (trickle) systems, 4) micro-irrigation such as spaghetti tube or individual tube irrigation, 5) hand-held calibrated irrigation equipment such as handheld wand with injector, and 6) ebb and flow systems. Do not apply this product through any other type of irrigation system.
- Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.
- If you have questions about 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 unless the pesticide label-prescribed safety devices for public water systems are in place.
- 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.

#### **Application Instructions for All Types of Chemigation:**

1. Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues, may cause Impact SIX to lose effectiveness or strength.
2. Determine the treatment rates as indicated in the directions for use and make proper dilutions.
3. To mix in supply tank, fill tank half way with water and add Impact SIX. Stir until completely dispersed. Fill tank with remaining amount of water.
4. Application of Impact SIX may be made continuously for the duration of the water application or can be applied at the end or after the water application.

#### **Requirements for Chemigation Systems Connected to Public Water Systems:**

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.
4. The pesticide injection pipeline must 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.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. 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.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Continuous agitation is not required in pesticide supply tanks unless tank mixing with other products or fluid fertilizers that require it.

#### **Sprinkler Chemigation Requirements:**

1. 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
6. 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.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Continuous agitation is not required in pesticide supply tanks unless tank mixing with other products or fluid fertilizers that require it.

#### **Drip (Trickle) Chemigation Requirements:**

1. 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
6. 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.
7. Use of a supply tank is recommended. Continuous agitation is not required in pesticide supply tanks unless tank mixing with other products or fluid fertilizers that require it.

#### **Floor (Basin), Furrow, and Border Chemigation Requirements:**

1. Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from back flow if water flow stops.
2. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
  - a) 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.
  - b) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
  - c) 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.
  - d) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
  - e) 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.
  - f) 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.
3. Use of a supply tank is recommended. Continuous agitation is not required in pesticide supply tanks unless tank mixing with other products or fluid fertilizers that require it.

## DIRECTIONS FOR USE

### SEED TREATMENT

Impact SIX is a biochemical seed treatment that provides early season protection against listed plant parasitic nematodes, plant diseases. Impact SIX works with plant natural defense systems and soil biology to deter insect feeding, laying, and establishment as well as combat diseases caused by plant viruses. Impact SIX also helps establish a vigorous root system that results in greater yields, more uniform foliage, and overall enhanced plant health. Impact SIX must be used only in accordance with use instructions on this label utilizing conventional acceptable seed treatment techniques, provided that the equipment can be calibrated to accurately and uniformly apply the product to the seed. Impact SIX is for both commercial and on-farm application. If Impact SIX is used for commercial seed treatment, treated seed must be labeled in accordance with the requirements of the Federal Seed Act and applicable State seed laws. If this product is intended for seed treatment at-planting, treat only those seeds needed for immediate use, minimizing the interval between treatment and planting.

#### Seed Quality and Storage of Treated Seed

Seed treatments applied to low vigor, poor quality, or mechanically damaged seed may result in loss of seed germination or reduced seedling vigor. Prior to treatment of an entire seed lot, verify seed viability by treating a small portion of seed with the desired slurry mixture (Impact SIX alone or in combination with other commercial seed treatment products). Utilize standard seed germination methodologies to determine and verify seed viability. Properly store treated seed. Due to seed quality and seed storage conditions beyond the control of Organisan Corporation no claims are made to guarantee the germination of carry-over treated seed.

#### Label Requirements of Treated Seeds

The Federal Seed Act requires that bags containing treated seed be labeled or tagged with the following information:

This seed has been treated with chitosan.

Store treated seed away from food and feedstuffs.

Wear long pants, long-sleeved shirt, and protective gloves when handling treated seed.

#### Mixing Instructions

Accurate application of Impact SIX to seed is required for best performance. Dilute Impact SIX with water (buffered to pH 5.0 or below) or distilled water. Apply as a water-based suspension of adequate volume to distribute product uniformly over seed surface area at a rate of 1 – 8 ounces per 100 lbs seed. The volume of suspension will vary according to seed type and whether companion seed treatments are used. Thoroughly pre-mix Impact SIX with water to ensure a uniform suspension. To verify compatibility with other seed treatment products, pre-test tank mixtures to evaluate formulation and proper physical compatibility of products. Impact SIX can be applied alone or with other seed treatment pesticides or other seed-applied products through commercial seed-treating equipment. Buffer the mixture to pH 5.0 or below before adding Impact SIX. Avoid storing wet seed as germination may be reduced if seed is not planted shortly after treatment.

When applied with seed treatment application equipment designed to treat seed utilizing a treatment slurry mixture, add approximately ½ to ½ of the required water (buffered to pH 5.0 or below or distilled) to the treatment slurry tank followed by the accompanying seed treatment products and Impact SIX. The order of product addition is dependent on the accompanying seed treatment products and application equipment used. Determine required amount of each tank mix component based on rate, seed size, and amount of seed to be treated. Fill mix tank with required amount of water (pH buffered or distilled) followed by Impact SIX, all seed treatment components, and seed colorant (if required). Allow each slurry component to disperse completely prior to the next addition until a uniform suspension is obtained. Ensure all products are uniformly mixed prior to use. After all slurry components have been added and dispersed completely add the remaining ½ to ½ of required water (pH buffered or distilled) for proper slurry volume and mix until uniform. Do not store mixed slurries for greater than 24 hours. Maintain adequate agitation until treatment slurry is applied.

Target Pests	Impact SIX is effective against the following nematode, and plant disease pests:
Nematode Pests:	Root-lesion nematode ( <i>Pratylenchus spp.</i> ), Root-knot nematode ( <i>Meloidogyne spp.</i> ), Reniform nematode ( <i>Rotylenchulus spp.</i> ), Sting nematode ( <i>Belonolaimus spp.</i> ), Stem nematode ( <i>Ditylenchus spp.</i> ), Gall nematode ( <i>Anguina spp.</i> ), Soybean Cyst Nematode ( <i>Heterodera spp.</i> ), Guava nematode ( <i>Meloidogyne spp.</i> ), Potato cyst nematode ( <i>Globodera spp.</i> )
Fungal and Bacterial Diseases:	<i>Rhizoctonia spp. (R. solani)</i> , Garlic and Onion White Rot, Onion Pink Root Rot, <i>Fusarium spp. (F. oxysporium, F. solani, F. graminearum)</i> , <i>Aspergillus spp.</i> , <i>Pseudomonas spp.</i> , <i>Phytophthora spp.</i> , <i>Phytophthora gummosis</i> , Phytophthora Root Rot, Bacterial Soft Rot, Armillaria Root Rot, Bacterial Blast, Sooty Mold, Alternaria, Melanose, Verticillium, Curvularia, Leaf Spot, Fairy Ring, Anthracnose, Brown Patch, Gray Leaf Spot

#### Application Rates

Specific application rates are listed below per crop; however, increased application rates of up to 8 ounces Impact SIX per 100 lbs seed can accommodate increased pest pressure and/or increased coating efficiency to account for differences in individual seed morphology and surface characteristics. Application rates vary per crop but do not exceed 8 oz. per 100 lbs seed. Product application by seed weight translates into different numbers of seeds within varieties and species which can affect coating efficiency. The rate ranges provided account for variances in individual seed weight, seed sizes, and seed morphology between crop species within the same group.

Crop Grouping	Including	Application Rate
Cereal Grains	Barley, Buckwheat, Corn (sweet and field), Millet, Oats, Quinoa, Rice, Rye (annual and cereal), Sorghum, Milo, Wheat, Grain Amaranth	1-4 oz/100 lbs seed
Berries and Small Fruit	Bayberry, Bearberry, Bilberry, Blackberry, Blueberry, Buffaloberry, Che, Chilean guava, Chokeberry, Cloudberry, Cranberry, Currant, Elderberry, Gooseberry, Grape, Huckleberry, Kiwifruit, Lingonberry, Loganberry, Mulberry, Raspberry, Strawberry	2-4 oz/100 lbs seed
Brassica (Cole) Leafy Vegetables	Broccoli, Broccoli Raab, Brussels Sprouts, Cabbage, Chinese Broccoli, Chinese Cabbage (Bok Choy), Chinese Cabbage (Napa), Chinese Mustard Cabbage (Gai Choy), Cauliflower, Cavalo Broccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard Greens, Mustard Spinach, and Rape Greens	2-4 oz/100 lbs seed
Bulb Vegetables	Leek, Garlic, Onion (Bulb and Green) and Shallot	2-4 oz/100 lbs seed
Citrus	Lemon, Orange, Lime, Grapefruit, Kumquat, Pummelo, Mandarin, Satsuma	2-4 oz/100 lbs seed
Cotton		4-6 oz/100 lbs seed
Cucurbit Vegetables	Cucumber, Edible Gourds, Muskmelon, Cantaloupe, Pumpkin, Watermelon, and Winter and Summer Squash	1-4 oz/100 lbs seed
Fruiting Vegetables	Tomato, Tomatillo, Pepper, Ground cherry, Pepino, Okra and Eggplant	1-4 oz/100 lbs seed
Grass Forage, Fodder and Hay	Bermuda grass; bluegrass; and brome grass or fescue, Bahia grass ( <i>Paspalum spp.</i> ) Orchard grass, Timothy grass, Crested Wheat Grass, Intermediate Wheat Grass	1-4 oz/100 lbs seed
Hemp		2-4 oz/100 lbs seed
Leafy Vegetables	Arugula, Celery, Corn Salad, Cress, Dandelion, Dock, Edible Chrysanthemum, Endive, Fennel, Head Lettuce, Leaf Lettuce, Parsley, Purslane, Radicchio, Rhubarb, Spinach and Swiss Chard	2-4 oz/100 lbs seed
Legume Vegetables (Succulent or Dried)	Bean (Lupinus) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin); bean (Phaseolus) (includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); bean (Vigna) (includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean); broad bean (fava); chickpea (garbanzo); guar; jackbean; lablab bean; lentil; pea (Pisum) (includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea); pigeon pea; soybean; soybean (immature seed); sun hemp; sword bean	2-4 oz/100 lbs seed
Oilseed Crops	Rapeseed, canola, sunflower, safflower, flax seed, cottonseed, sesame, borage, calendula, castor oil plant, crambe, cuphea, echium, euphorbia, evening primrose, gold of pleasure, hare's ear mustard, jojoba, lesquerella, lunaris, meadowfoam, milkweed, mustard seed, niger seed, rose hip, oil radish, poppy seed, stokes aster, sweet rocket, tallowwood, tea oil plant, vernonia	2-4 oz/100 lbs seed
Peanut		2-4 oz/100 lbs seed
Root and Tuber Vegetables	Artichoke, Black Salsify, Carrot, Cassava, Celeriac, Chayote Root, Chicory, Chinese Artichoke, Edible Burdock, Garden Beet, Ginger, Ginseng, Horseradish, Jerusalem Artichoke, Oriental Radish, Parsnip, Potatoes, Radish, Rutabaga, Salsify, Skirret, Spanish Salsify, Sugar Beet, Sweet Potatoes, Tumeric, Turnip, Turnip-rooted Chervil, Turnip-rooted Parsley and Yams	2-4 oz/100 lbs seed
Sugarcane		2-4 oz/100 lbs seed
Tobacco		2-4 oz/100 lbs seed
Tree Nurseries	Christmas trees, Fir, Pine, Oak, Spruce, Noble Fir, Scotch Pine, Balsam Fir, Douglas-Fir, Elm, Ash, Hickory, Poplar, Cedar, Locust, and other tree varieties for commercial use or reforestation	2-4 oz/100 lbs seed
Turfgrass	Ornamental lawns, golf courses, sod farms	1-2 oz/100 lbs seed
Herbs and Spices	Allspice, Angelica, Anise, Star Anise, Annatto, Balm, Basil, Borage, Burnet, Camomile, Caper buds, Caraway, Cardamom, Cassia (buds and bark), Catnip, Celery seed, Chervil, Chive, Cinnamon, Clary, Clove buds, Coriander, Cilantro, Costmary, Culantro, Cumin, Curry, Dill, Fennel, Fenugreek, Grains of Paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage, Mace, Marigold, Marjoram, Mustard, Nasturtium, Nutmeg, Parsley, Pennyroyal, Pepper (white and black), Rosemary, Rue, Saffron, Sage, Savory, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood	2-4 oz/100 lbs seed
Stalk, Stem, and Leaf Petiole Vegetables	Agave, Aloe Vera, Asparagus, Bamboo shoots, Cardoon, Celery, Celtuce, Fennel, Fern, Fuki, Kale, Kohlrabi, Palm hearts, Prickly pear, Rhubarb, Udo, Zuiki	2-4 oz/100 lbs seed
Hops		2-4 oz/100 lbs seed
Nongrass Animal Feeds	Alfalfa, Velvet Bean, Clover, Lespedeza, Lupin, Sainfoin, Trefoil, Vetch (crown and milk), Bahia grass ( <i>Paspalum spp.</i> )	1-2 oz/100 lbs seed

## DIRECTIONS FOR USE RESIDENTIAL USE INSTRUCTIONS

Impact SIX is a 25(b) a minimum risk use pesticide product that qualifies for exemption from EPA registration under Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) for use on home & garden plants, trees, and ornamentals against listed nematodes, plant diseases. Impact SIX works with plant natural defense systems and soil biology to deter insect feeding, laying, and establishment as well as combat diseases caused by plant viruses. Apply Impact SIX as a soil treatment to control listed soil-borne pests and diseases and apply Impact SIX as a foliar spray or as a soil treatment (soil drench, in-furrow, drip-applied) to control listed pests, nematodes, and plant diseases. Impact SIX can be used throughout your growing season.

### HOW TO APPLY

**MIXING:** Dilute Impact SIX with water and apply in conventional spray equipment. Partially fill the spray tank with clean water and buffer mixture to pH 5.0 or below before adding Impact SIX. Citric acid is the preferred buffering agent. Add the specified amount of Impact SIX to the tank. Finish filling the tank to the desired volume to obtain the proper spray concentration. Shake the spray tank and use spray mixture immediately. Do not allow spray mixture to stand overnight or for prolonged periods.

**SOIL PRE-PLANT APPLICATION:** Apply Impact SIX to the soil as a pre-plant, at planting or post-plant soil treatment on annual and perennial plants and residential lawns and turf. Best results will be obtained from pre-plant applications close to the actual planting times. Impact SIX is formulated to work in synergy with resident soil microflora to enhance an environment that is detrimental to nematodes and soil-borne pests. For perennial plants, apply Impact SIX just prior to a root flush to protect young roots. Multiple applications may be required for plants with multiple root flushes. Impact SIX may be applied to and incorporated into the soil. Incorporation may be accomplished by mechanical equipment, irrigation, or rainfall. Impact SIX can be applied to bare soil alone or with most types of pesticides and nutrients prior to planting, at planting, at transplant, in-season, pre- and post-harvest.

**FOLIAR APPLICATION:** Apply Impact SIX using spray equipment to the point of saturation. Good coverage and wetting are required. Do not apply to the point of runoff. The amount of spray solution to apply will vary depending on the type of crop. Apply in sufficient amount of water and adequate spray pressure to achieve thorough coverage to soil or plant surfaces. is most effective when applied before or around the onset of pest or disease emergence. Repeat treatments at 7 – 21-day intervals as needed. Impact SIX can be applied in commonly used pressurized hand-held or backpack sprayers, spray trigger bottles, and hose-end sprayers. Use higher rates and increase spray frequency when pest pressure is high.

Effective Against	Impact SIX is effective against the following nematode, and plant disease pests:
Nematode Pests:	Root-lesion nematode, Root-knot nematode, Reniform nematode, Sting nematode, Stem nematode, Gall nematode, Soybean Cyst Nematode, Spiral Nematode, Lance Nematode, Guava nematode, Potato cyst nematode.
Fungal and Bacterial Diseases:	<i>Rhizoctonia spp.</i> , Garlic and Onion White Rot, Onion Pink Root Rot, <i>Fusarium spp.</i> , <i>Aspergillus spp.</i> , <i>Pseudomonas spp.</i> , <i>Phytophthora spp.</i> , <i>Phytophthora gummosis</i> , Phytophthora Root Rot, Bacterial Soft Rot, Armillaria Root Rot, Bacterial Blast, Sooty Mold, Alternaria, Melanose, Verticillium, Curvularia, Leaf Spot, Fairy Ring, Anthracnose, Brown Patch, Gray Leaf Spot, Gray Rot, Noble Rot, and Botrytis Bunch Rot, Pink Root, Pink Rot, Potato Soft Rot, <i>Pythium spp.</i> , Early Blight, Late Blight, Bacterial Blight, Downy Mildew, Collar Rot, Stem Rot, Powdery Mildew, Spring Root Dieback, Dollar Spot, Rhizosphaera Needle Cast, Red Thread, Summer Patch, Rust, Take All Patch, Ascochyta Leaf Blight, Slime Mold.

### WHERE TO APPLY

Impact SIX can be applied on the use sites listed in the table below to control listed nematodes, fungi and bacterial diseases.

Use Sites	Including	Mixing and Application Instructions
Turf & Lawns	<b>Turf Surfaces</b> , including Bermuda grass, fescue, bluegrass, bahia grass, ryegrass, St. Augustine grass, zoysia grass, and other residential lawns	Mix ½ ounce (2 TBSP) of Impact SIX per minimum 1 gallon of water per 1,000 square feet of treatment area and apply as a preventative treatment for listed pests. Mix 1 ounce (4 TBSP) of Impact SIX per minimum 1 gallon of water per 1,000 square feet of treatment area as a curative treatment against listed pests.
Garden Plants	<b>Cereal Grains</b> , including barley, corn, oats, rye, sorghum, and wheat <b>Leafy Vegetables</b> , including broccoli, cabbage, brussels sprouts, cauliflower, collards, mustard greens, spinach, arugula, celery, lettuce <b>Bulb Vegetables</b> , including chive, onion, leek, garlic, onion, shallot <b>Cucurbit Vegetables</b> , including cucumber, gourds, cantaloupe, pumpkin, watermelon, squash <b>Fruiting Vegetables</b> , including tomato, pepper, okra, eggplant <b>Legume Vegetables</b> , including beans, lentils, peas <b>Oilseed Crops</b> , including rapeseed, canola, sunflower <b>Root and Tuber Vegetables</b> , including artichoke, carrot, beets, ginger, ginseng, parsnip, potato, radish, turnip <b>Stalk, Stem, and Leaf Petiole Vegetables</b> , including agave, asparagus, celery, kohlrabi, rhubarb <b>Herbs and Spices</b> , including allspice, anise, basil, caraway, chive, cinnamon, clove, cilantro, fennel, dill, lavender, lemongrass, mint, oregano, rosemary, sage, saffron, thyme <b>Tropical and Subtropical Fruits</b> , including banana, avocado, pomegranate, plantain, persimmon, pineapple Peanuts, Cotton, Hemp, Sugarcane, Tobacco, Hops, Alfalfa, Clover	Mix 1 – 2 tablespoons of Impact SIX per minimum 1 gallon of water.
Ornamentals	Both annuals and perennials, including ornamental grasses, azaleas, begonias, petunias, hydrangeas, roses, tulips, daisies, zinnias, and other indoor and outdoor houseplants	Mix 1 – 2 tablespoons of Impact SIX per minimum 1 gallon of water.
Trees & Shrubs, including Fruit & Nut Trees	<b>Trees</b> , including pine trees, fir trees, spruce trees, cedar trees, and holly trees <b>Fruits and Nut Trees</b> , including apple, blackberry, blueberry, strawberry, raspberry, citrus, pear, plum, peach, almond, pecan, cashew, chestnut	Mix 1 – 2 tablespoons of Impact SIX per minimum 1 gallon of water.