

# AXP10

## FUNGICIDE AND SYSTEMIC RESISTANCE INDUCER

**Read Entire Label before Use**

### ACTIVE INGREDIENT:

Lysate of *Willaertia magna* C2c Maky ..... 100%

**TOTAL** ..... 100%

### KEEP OUT OF REACH OF CHILDREN CAUTION

[See [back] [or] [side] panel for [additional] Precautionary Statements]

FIRST AID	
If swallowed	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to by a poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
If on skin	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If inhaled	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
Have the product container or label with you when calling a poison control center, doctor, or going for treatment. For non-emergency information concerning this product, call the National Pesticides Information Center (NPIC) at 1-800-858-7378 (NPIC Web site: <a href="http://www.npic.orst.edu">www.npic.orst.edu</a> ). For emergencies, call the poison control center 1-800-222-1222, 24 hours a day, 7 days a week.	

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Lot No.  
Net Contents:

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## **PRECAUTIONARY STATEMENTS**

### **Hazards to Humans and Domestic Animals**

CAUTION. Harmful if swallowed, absorbed through skin, or inhaled. Avoid contact with skin, eyes or clothing. Avoid breathing vapor. 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.

### **Environmental Hazards**

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

### **Personal Protective Equipment (PPE)**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

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

### **USER SAFETY RECOMMENDATIONS**

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### **DIRECTIONS FOR USE**

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

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

## **AGRICULTURAL USE REQUIREMENTS**

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

Do not enter or allow worker entry into treated areas during the restricted entry interval 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 plants, soil or water, is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

## **Product Information**

AXP10 is a systemic resistance inducer (SRI) and fungicide that acts preventatively. Its active ingredient, Lysate of *Williaertia magna* C2c Maky induces plant defense mechanisms which prepares the plant to defend itself against fungal attacks.

## **Application Instructions**

Apply AXP10 as a foliar spray to field or greenhouse crops. Do not apply though any type of chemigation.

Apply APX10 with conventional spray equipment to the point of saturation. Use a sufficient volume of mixture to ensure complete coverage of vegetation without run-off. The amount of spray solution necessary depends on the type of crop. Most crops require the required amount of AXP10 in up to 150 gallons of water per acre, with a recommended range of AXP10 in 20 to 150 gallons of water per acre. If possible, apply the product on both faces of the leaves and preferably early in the morning. Avoid application during periods of hot temperatures. In case of heavy rain (rain fastness risk) during the period of 48 hours after treatment, repeat the application. See application instructions table for specific application instructions for each crop. Pre-harvest Interval (PHI) = 0 days.

## **Use Recommendations**

Apply strictly preventively, before risk of disease pressure. Apply AXP10 at 4 to 10-day intervals depending on disease pressure. In case of high pressure/risk, AXP10 should be used in program with other fungicides (alternation or tank-mix).

AXP10 has been evaluated for phytotoxicity on a variety of crops under various normal growing conditions. However, testing all crop varieties, in all mixtures and combinations, is not feasible. Prior to treating entire crop, test a small portion of the crop for sensitivity.

## **Mixing Directions**

Do not add AXP10 to the tank mix before introducing the required amount of water. First, add water to the tank mix. Start the mechanical or hydraulic agitation to provide moderate circulation before adding AXP10. Maintain circulation while loading and spraying. Do not mix more AXP10 that can be used in 8 hours.

Always ensure the sprayer is clean according to standard cleaning procedures, in good working order, and calibrated accurately to the sprayer manufacturer recommendations.

## **Tank Mixing**

Do not combine AXP10 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, and non-injurious under your use conditions. Follow the most restrictive of the labeling limitations and precautions of all products used in mixtures.

To ensure compatibility of tank-mix combinations, evaluate 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 other products to one quart of water with agitation. Add dry formulations first, then flowables, and then emulsifiable concentrates last. Then add the proportionate amount of AXP10. After thoroughly mixing, let mixture stand for 5 minutes. If the combination remains mixed or can be readily remixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank. Test the mix on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of the application.

## **Aerial Drift Reduction Information**

### **General**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and grower are responsible for considering all these factors when making decisions. Where states have more stringent regulations, they must be observed. This section is advisory and does not supersede any mandatory label requirements.

### **Information on Droplet Size**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that will provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions sections of the label).

### **Controlling Droplet Size**

Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets. Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When high flow rates are needed, use higher flow rate nozzles instead of increasing pressure. Use the minimum number of nozzles that provide uniform coverage. Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential. Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and lowest drift.

### **Boom Width**

For aerial applications, the boom width must not exceed 75% of the wingspan or 90% of the rotary blade. Use upwind swath displacement and apply only when wind speed is 3 to 10 mph as measured by an anemometer. Use medium or coarser spray according to ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles. If application includes a no-spray zone, do not release spray at a height greater than 10 feet above the ground or crop canopy.

## **Application Height**

Do not make application at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure to droplets to evaporation and wind.

## **Swath Adjustment**

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for the displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

## **Wind**

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Local terrain can influence wind patterns. Every applicator should be familiar with local windy patterns and how they affect spray drift.

## **Temperature and Humidity**

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

## **Temperature Inversions**

Do not apply during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

## Sensitive Areas

Only apply AXP10 when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas). Do not allow spray to drift from the application site and contact people, structures people occupy at any time, and associated property, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

## Application Instructions Table

AXP10 can be used to control fungal diseases such as: Alternaria leaf spot, Anthracnose, Barley leaf blotch, Black sigatoka, Botrytis, Downy mildew, Drechslera leaf spot, Fusarium, Late blight, Monolinea fruit or blossom rot, Phytophthora, Powdery mildew, Rhizoctonia, Rust, Scab, Septoria blotch, Tan spot (see application rates below).

Crop	Diseases Controlled	Application Rate
<b><i>Grapevine and Table grape</i></b>	Powdery mildew Downy mildew Botrytis cinerea Sour rot	1 to 3 lbs./acre
<b><i>Asparagus</i></b>	Rust, <i>Cercospora</i> blight, <i>Stemphylium</i> purple spot	2 to 4 lbs./acre
<b><i>Berries and Small Fruits such as:</i></b> Blackberry, blueberry, bushberry, caneberry, cranberry, currant, elderberry, gooseberry, huckleberry, loganberry, raspberry, strawberry, kiwifruit	Powdery mildew Downy mildew Botrytis	2 to 4 lbs./acre
<b><i>Cucurbit Vegetables such as:</i></b> Cucumber, Melon, Gourd, Pumpkin, Squash, Zucchini	Powdery mildew Downy mildew Botrytis	2 to 4 lbs./acre
<b><i>Fruiting Vegetables such as:</i></b> Eggplant, Okra, Pepper, Tomatillo, Tomato	Powdery mildew Downy mildew Late blight Botrytis	2 to 4 lbs./acre
<b><i>Leafy Vegetables (except Brassica cole crops) such as:</i></b> Arugula, Celery, Chervil, Endive, Fennel, Lettuce (head and leaf), Parsley, Radicchio, Rhubarb, Spinach, Swiss Chard, Broccoli, Collards, Kale, Mustard Greens	Downy mildew Botrytis Rhizoctonia	2 to 4 lbs./acre

Crop	Diseases Controlled	Application Rate
<b>Root and Tuber Vegetables such as:</b> Arracacha, Arrowroot, Artichoke, Chinese, Artichoke, Jerusalem; Beet, garden; Beet, sugar; Burdock, edible; Canna, edible; Carrot; Cassava, bitter and sweet; Celeriac (celery root); Chayote (root); Chervil, turnip-rooted; Chicory; Chufa; Dasheen (taro); Ginger; Ginseng; Horseradish; Leren; Parsley, turnip-rooted; Parsnip; Potato; Radish; Radish, oriental (daikon); Rutabaga; Salsify (oyster plant); Salsify, black; Salsify, Spanish; Skirret; Sweet potato; Tanier; Tumeric; Turnip; Yam bean; Yam, true	Powdery mildew Alternaria Late blight	2 to 4 lbs./acre
<b>Bulb Vegetables such as:</b> Chive, fresh leaves; Chive, Chinese, fresh leaves; Daylily, bulb; Elegans hosta; Fritillaria, bulb; Fritillaria, leaves; Garlic, bulb; Garlic, great headed, bulb; Garlic, Serpent, bulb; Kurrat; Lady's leek; Leek <i>Allium porrum</i> ; Leek, wild; Lily, bulb; Onion, Beltsville bunching; Onion, bulb; Onion, Chinese, bulb; Onion, fresh; Onion, green; Onion, macrostem; Onion, pearl; Onion, potato, bulb; Onion, Welsh, tops; Shallot, bulb; Shallot, fresh leaves; Cultivars, varieties, and/or hybrids of these	Powdery mildew Downy mildew Botrytis spp.	1 to 6 lbs./acre
<b>Brassica (Cole) Crops such as:</b> Broccoli; Brussels sprouts; Cabbage; Cabbage, Chinese, napa; Cauliflower; Cultivars, varieties, and/or hybrids of these	Powdery mildew Downy mildew	1 to 4 lbs./acre
<b>Legume Vegetables (Succulent or Dried) such as:</b> Bean; Broad bean (fava); Chickpea; Guar; Jackbean; Lablab bean; Lentil; Pea; Pigeon pea; Soybean; Sword bean	Powdery mildew Botrytis Rust	1 to 4 lbs./acre
<b>Herbs and Spices such as:</b> Angelica, balm, basil, borage, burnet, chamomile, catnip, chervil, chive, clary, coriander, costmary, cilantro, curry, dillweed, horehound, hyssop, lavender, lemongrass, lovage, majoram, nasturtium, parsley (dried), rosemary, sage, savory (summer and winter), sweet bay, tansy, tarragon, thyme, wintergreen, woodruff, wormwood	Powdery mildew Downy mildew Botrytis	1 to 4 lbs./acre



Crop	Diseases Controlled	Application Rate
<b>Pome fruits such as:</b> Apple; Azarole; Crabapple; Loquat; Mayhaw; Hook. & Arn.; Medlar; Pear; Pear, Asian; <i>Pseudocydonia sinensis</i> ; Quince; Quince, Chinese; Quince, Japanese; Tejocate; Cultivars, varieties and/or hybrids of these	Apple Scab Fire blight Powdery mildew Botrytis Alternaria	1 to 6 lbs./acre
<b>Stone fruits such as:</b> Apricot; Apricot, Japanese; Capulin; Cherry, black; Cherry, Nanking; Cherry, sweet; Cherry, tart; Jujube, Chinese; Nectarine; Peach; Plum; Plum, American; Plum, beach; Plum, Canada; Plum, cherry; Plum, Chickasaw; Plum, Damson; Plum, Japanese; Plum, Klamath; Plum, prune; Plumcot; Sloe; Cultivars, varieties, and/or hybrids of these	Powdery mildew Alternaria Botrytis Rust	1 to 6 lbs./acre
<b>Tree Nut crops such as:</b> African nut-tree; Almond; Beechnut; Brazil nut; Brazilian pine; Bunya; Bur oak; Butternut; Cajou nut; Candlenut; Cashew; Chestnut; Chinquapin; Coconut; Dika nut; Ginkgo; Guianan chestnut; Hazelnut; Heartnut; Hickory nut; Japanese horse-chestnut; Macadamia nut; Mongongo nut; Monkey-pot; Monkey puzzle nut; Okari nut; Pachira nut; Peach palm nut; Pecan; Pequi; Pili nut; Pine nut; Pistachio; Sapucaia nut; Tropical almond; Walnut, black; Walnut, English; Yellowhorn; Cultivars, varieties, and/or hybrids of these	Botrytis Alternaria	1 to 6 lbs./acre
<b>Cereals Grains such as:</b> Wheat, Barley, Oats, Rye, Triticale	Powdery mildew, Stripe rust, Leaf wheat rust, Stem rust, Crown rust, Septoria blotch, Tan spot, Barley leaf rust, Barley leaf blotch, Drechslera leaf spot	1 to 6 lbs./acre
<b>Tropical Fruits such as:</b> Banana, mango, papaya, avocado, pineapple	Black sigatoka Botrytis	2 to 6 lbs./acre

### **STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Store in original container in a cool, dry place. Prevent exposure to moisture. Keep container tightly closed and out of reach of children. Avoid contamination with other pesticides or fertilizers.

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

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  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.

### **Conditions of Sale and Warranty**

To the extent permitted by applicable law, the seller makes no warranty, expressed or implied, of merchantability, fitness or otherwise concerning use of this product. The user assumes all risks of use, storage or handling that are not in accordance with the accompanying directions.