100 - 969

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# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Teresa Cox Regulatory Product Manager Regulatory Affairs Department Syngenta Crop Protection, Inc. P.O. Box 18300 Greensboro, NC 27419-8300

SEP 1 1 2009

Dear Ms. Cox:

SUBJECT: Scholar Fungicide EPA Registration Number 100-969 Your Submission of June 16, 2009 OPPIN Decision Number 416881 Addition of pomegranate and sweet potato

The amendment referred to above, submitted in connection with registration under section (3) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) is acceptable provided you make the following changes:

#### Page 2 – Precautionary Statements:

Add the text "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. " immediately after "Avoid contact with skin, eyes or clothing."

#### Page 2 – User Safety Requirements Box:

Revise the text "Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water." Additionally, place text inside of box.

# Page 6 – Storage and Disposal – Pesticide Disposal:

Replace the Pesticide Disposal text with:

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

#### Page 6 – Storage and Disposal – Container Handling – Plastic Containers:

Replace the "for plastic containers" section with the following two subsections, one for containers five gallons in size or smaller and the other for containers larger than five gallons:

"[For plastic containers five gallons in size or smaller]

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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, or, if allowed by state and local authorities, by burning."

and

"[For plastic containers larger than five gallons]

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. "Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning."

Please submit one copy of your final printed labeling before you release the product for shipment.

A stamped copy of the label is enclosed for your records. If you have any questions, please contact Lisa Jones of my staff by phone at (703) 308-9424 or by e-mail at jones.lisa@epa.gov.

Sincerely,

Shaja B. Joyner Product Manager (20) Fungicide Branch Registration Division (7505P)

Enclosure: Stamped Label

Master Label

# GROUP 12 FUNGICIDE

# Scholar® Fungicide

Active Ingredient:	
Fludioxonil (CAS No. 131341-86-1)	
Other Ingredients:	50.0%
Total:	100.0%

Scholar is a 50% wettable powder.

Net Weight

or

(Water Soluble Packets) Scholar is a 50% wettable powder packaged in a container with \_\_\_\_ x \_\_\_ oz. watersoluble packets.

This outer protective container contains Scholar in \_\_\_\_\_\_ inner water-soluble packets. These inner packets dissolve in water, allowing contents to wet. After opening outer container, immediately dump the required number of unopened inner packets into the partially filled sprayer or mix tank. Do not handle the soluble packets or expose them to moisture, since this may cause rupturing.

Do not offer individual packets for sale

\_\_\_\_x \_\_\_ ounce Water Soluble Packets

# KEEP OUT OF REACH OF CHILDREN.

# CAUTION

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-969

EPA Est.

SCP 969A-

ACCEPTED with COMMENTS In EPA Letter Dated: SEP 1 1 2009

Under the Federal Insecticide, Fungicide, and Rodenticide Act, se amended, for the pesticide registered under EPA Reg. No.

100-969

FIRST AID	
If in eyes:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If on skin:	Take off contaminated clothing.
	Rinse skin immediately with plenty of water for 15-20 minutes.
	Call a poison control center or doctor for treatment advice.
Have the pro	duct container or label with you when calling a poison control center or
doctor, or going for treatment.	
HOT LINE NUMBER	
For 24 Hour Medical Emergency Assistance (Human or Animal)	
or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident),	
Call	
	1-800-888-8372

#### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

#### CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing.

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

Applicators and other handlers of the fungicide must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made from any waterproof material
- Shoes plus socks

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

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240 (d)(4-6), the handler PPE requirements may be reduced or the modified as specified in the WPS. Water-soluble packets when used correctly qualify as a closed loading system under the WPS. Handlers handling this product while it is

enclosed in intact water-soluble packets may elect to wear reduced PPE of longsleeved shirt, long pants, shoes, and socks.

IMPORTANT: when reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

#### **User Safety Recommendations**

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
   Wash thoroughly with soap and water after handling.
- Remove clothing 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.

#### Environmental Hazards

This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsates.

## Physical or Chemical Hazards

Do not use or store near heat or open flame.

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, Inc. or Seller. To the extent permitted y applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, In no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

# **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.

Do not plant any crop other than melons, onions or strawberries within 30 days after the last application.

Not for use on melons in NASSAU AND SUFFOLK COUNTIES, NEW YORK.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR DISEASE CONTROL.

# 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 only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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

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

- Coveralls
- Chemical-resistant gloves made of any waterproof material.
- Shoes plus socks

# NON-AGRICULTURAL USE REQUIREMENTS

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

Do not enter treated areas without protective clothing until sprays have dried.

#### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original containers in a cool, dry place. Do not store this product under wet conditions. Handle outer container carefully to avoid breakage of inner water-soluble packets. Keep container closed when not in use. Do not store near food or feed. In case of spill on floor or paved surfaces, sweep and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

**Pesticide Disposal:** Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

#### **Container Handling**

#### [For paper and plastic bags]

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

[For plastic containers] Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. 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 ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow beings 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, or if allowed by state and local authorities by burning. If burned, stay out of smoke.

#### CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.

# **GENERAL INFORMATION**

Scholar is a protective fungicide used to aid in the control of soil, foliar and post harvest diseases. Scholar contains fludioxonil which is in the phenylpyrrole class of chemistry and has a unique mode of action, which prevents fungal respiration [Fungicide Action Group 12]. Fungal isolates with acquired resistance to Group 12 may eventually dominate the fungal population if Group 12 fungicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by fludioxonil or other Group 12 fungicides. A disease management program that includes alternation or tank mixes between Scholar and other labeled fungicides that have a different mode of action may prevent pathogen populations from developing resistance. Sanitation and other cultural practices to minimize disease are also recommended to aid in control as well as to assist in preventing/delaying resistance development.

**NOTE:** Scholar may be degraded by exposure to direct sunlight. Treated fruit should not be stored in direct sunlight.

# MIXING PROCEDURES

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. Vigorous agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. Do not let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use.

To determine the physical compatibility of Scholar with other products, use a jar test as described below.

Jar Compatibility Test: Using a quart jar, add the proportionate amounts of the products to 1 qt. of water or wax/oil emulsion. Add wettable powders and waterdispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank. If using Scholar in a tank mixture, observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank mix product label. No label dosage rate should be exceeded and the most restrictive label precautions and limitations should be followed. This product should not be mixed with any product which prohibits such mixing. Tank mixtures are permitted only in those states where the tank mix partner is registered.

THE CROP SAFETY OF ALL POTENTIAL TANK MIXES INCLUDING ADDITIVES AND OTHER PESTICIDES ON ALL CROPS HAS NOT BEEN TESTED. BEFORE APPLYING ANY TANK MIXTURE, THE SAFETY TO THE TARGET CROP SHOULD BE CONFIRMED.

Add ½ of the required amount of water or wax/oil emulsion (or aqueous dilution of a wax/oil emulsion) to the spray or mixing tank. With the agitator running, open the container and add the Scholar to the tank. Continue agitation while adding the remainder of the carrier. Begin application of the solution after the Scholar has completely and uniformly dispersed into the mix carrier. Maintain agitation until all of the mixture has been applied.

If tank-mixing, add the desired amount of other products recommended for tank mixture after Scholar has completely and uniformly dispersed into the mix carrier. In general, tank mix partners should be added in this order: wettable powders, wettable granules (dry flowables), liquid flowables, liquids, and emulsifiable concentrates. Always allow each tank mix partner to become fully dispersed before adding the next product. Continue agitation to maintain a uniform suspension until all of the spray solution has been applied. Maintain agitation until all of the mixture has been applied.

#### Water-Soluble Packets

Add ¼ of the required amount of water to the spray or mixing tank. With the agitator running, drop the required number of unopened soluble packets of Scholar into the tank all at once. Continue agitation while adding the remainder of the water. Allow the packets of Scholar to dissolve and the product to completely disperse into the mix water. Then add the desired amount of other products recommended for tank mixture and allow them to become completely dispersed. In general, tank mix partners should be added in this order: wettable powders, wettable granules (dry flowables), liquid flowables, liquids, and emulsifiable concentrates. Always allow each tank mix partner to become fully dispersed before adding the next product. Continue agitation to maintain a uniform suspension until all of the spray solution has been applied.

Precaution: Water-soluble packets of Scholar and any other products packaged in water-soluble film must be completely dissolved and dispersed in water before any other tank mix partner, are added to the spray solution. Other than when preparing the solution, do not handle water soluble packets or expose them to moisture since this may cause rupturing.

# **APPLICATION INSTRUCTIONS**

Apply Scholar at rates and timings as described in this label.

# DIRECTIONS FOR USE THROUGH DRIP CHEMIGATION SYSTEMS

Apply this product only through a drip irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

**Spray Preparation:** Chemical tank and injector system should be thoroughly cleaned. Flush system with clean water.

#### **Use Precautions for Drip Irrigation Applications:**

**Drip Irrigation:** Scholar may be applied through drip irrigation systems for soil-borne disease control. The soil should have adequate moisture capacity prior to drip application.

Terminate drip irrigation at fungicide depletion from the main feed supply tank or after 6 hours from start, whichever is shorter. For maximum efficacy, subsequent irrigation (water only) should be delayed for at least for 24 hours following drip application.

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 backflow.

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 which 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.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. 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.

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.

# **Specific Instructions for Public Water Systems:**

- 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 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 pump.
- 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.

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- 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.

#### **CROP USE DIRECTIONS**

Melons: Citron melon, muskmelon (hybrids and/or cultivars of *Cucumis melo*, includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon) and watermelon (includes hybrids and/or varieties of *Citrullus lanatus*).

Use Scholar for the suppression of vine decline caused by *Monosporascus* cannonballus.

Apply 0.25-0.50 lb. Scholar per acre. Apply prior to planting or transplanting in a 16inch band shanked in with four fertilizer knives per bed or through the drip tape. Make additional applications starting at 21 days after planting or 7 days after transplanting via the drip tape. Continue to apply via drip tape every 14-21 days if conditions favor disease development. Make up to 3 applications at 0.50 lb./A or 6 applications at 0.25 lb./A.

Apply through drip irrigation to provide a root-zone of treated area. Due to limited movement of Scholar in the soil, it is best to place the drip irrigation line directly below the plants and no more than 4 inches deep.

Do not apply more than 1.5 lbs. Scholar (0.75 lb. active ingredient) per acre per crop.

Do not apply within 14 days of harvest.

Citrus: Calamondin (*Citrus mitis, Citrofortunella mitis*), Citrus citron (*Citrus medica*), Citrus hybrids (*Citrus spp.*) (includes chironja, tangelo, tangor), Grapefruit (*Citrus paradisi*), Kumquat (*Fortunella spp.*), Lemon (*Citrus jambhiri, Citrus limon*), Lime (*Citrus aurantiifolia*), Mandarin (tangerine) (*Citrus reticulata*), Orange, sour (*Citrus aurantium*), Orange, sweet (*Citrus sinensis*), Pummelo, (*Citrus grandis, Citrus maxima*), Satsuma mandarin (*Citrus unshiu*)

Use Scholar as a post-harvest dip, drench, flood, or spray for the control of certain postharvest fruit rots caused by *Penicillium* spp., and stem-end rots caused by *Lasiodiploidia*  theobromae (Diplodia stem-end rot), Diaporthe citri (Phomopsis stem-end rot), and gray mold caused by Botrytis cinerea.

<u>High Volume (Dilute) Application</u>: Mix 16-32 oz. Scholar in 25-100 gals. of an appropriate water, wax/oil emulsion, or aqueous dilution of a wax/oil emulsion for the crop being treated. Use T-Jet, flooders, or similar application system.

Low Volume (Concentrate) Application: Mix 16-32 oz. of Scholar in 7-25 gals. of an appropriate water, wax/oil emulsion, or aqueous dilution of wax/oil emulsion for the crop being treated. Apply to 250,000 lbs. of fruit.

<u>Dip Application</u>: Mix 16-32 oz. of Scholar in 100 gals. of an appropriate water, wax/oil emulsion, or aqueous dilution of wax/oil emulsion. Dip for a minimum of 30 seconds and allow fruit to drain.

For maximum decay control, treat citrus fruit once before storage and once after storage, just prior to marketing.

Do not make more than two applications to citrus fruit.

**NOTE**: Ensure the Scholar solution remains in suspension by using agitation. Scholar may be degraded by exposure to direct sunlight. Treated fruit should not be stored in direct sunlight.

#### Kiwi

Use Scholar as a post-harvest dip or spray for the control of Botrytis fruit rot in kiwi.

<u>Dip Application</u>: Mix 8-16 oz. of Scholar in 100 gals. of an appropriate water, wax/oil emulsion, or aqueous dilution of wax/oil emulsion. Dip for approximately 30 seconds and allow fruit to drain.

Low Volume (Concentrate) Application: Mix 8-16 oz. of Scholar in 7-25 gals. of water, wax/emulsion, or aqueous dilution of wax/oil emulsion for the crop being treated. Apply to 200,000 lbs. of fruit.

Do not make more than one application to kiwi.

**NOTE**: Ensure the Scholar solution remains in suspension by using agitation. Scholar may be degraded by exposure to direct sunlight. Treated fruit should not be stored in direct sunlight.

# Pome fruit: Apple (*Malus domestica*), Crabapple (*Malus* spp.), Loquat (*Eriobotrya japonica*), Mayhaw (*Crataegus aestivalis, C. opaca,* and *C. rufula*), Pear (*Pyrus communis*), Pear, oriental (*Pyrus pyrifolia*), Quince (*Cydonia oblonga*)

Use Scholar as a post-harvest dip, drench, flood, or spray for the control of certain postharvest diseases including blue mold caused by *Penicillium expansum*, gray mold caused by *Botrytis cinerea*, bull's-eye rot caused by *Pezicula malacorticis*, rhizopus rot caused by *Rhizopus stolonifer* and mucor rot caused by *Mucor piriformis*.

<u>High Volume (Dilute) Application</u>: Mix 8-16 oz. Scholar in 25-100 gals. of an appropriate water, wax/oil emulsion, or aqueous dilution of a wax/oil emulsion for the crop being treated. Use T-Jet, flooders, or similar application system.

<u>Low Volume (Concentrate) Application</u>: Mix 8-16 oz. of Scholar in 7-25 gals. of an appropriate water, wax/emulsion, or aqueous dilution of wax/oil emulsion for the crop being treated. Apply to 200,000 lbs. of fruit.

<u>Dip Application</u>: Mix 8-16 oz. of Scholar in 100 gals. of an appropriate water, wax/emulsion, or aqueous dilution of wax/oil emulsion. Dip for approximately 30 seconds and allow fruit to drain.

For maximum decay control, treat fruit once before storage and once after storage, just prior to marketing.

**NOTE**: Ensure the Scholar solution remains in suspension by using agitation. Scholar may be degraded by exposure to direct sunlight. Treated fruit should not be stored in direct sunlight.

#### Pomegranates

Use Scholar as a dip treatment for the control of post-harvest fruit rot caused by Botrytis.

**Dip Application:** Mix 16 oz. of Scholar in 100 gals. of water, wax/emulsion, or aqueous dilution of wax/oil emulsion. Dip for approximately 30 seconds and allow fruit to drain. Dip solution should be replaced with fresh dip solution after 200,000 pounds of fruit has been treated.

Do not make more than one post-harvest application to the fruit.

Ensure the Scholar solution remains in suspension by using agitation. Scholar is stable in chlorine (100 ppm solution) and at temperatures of 60°C (or 140°F) that can be used to disinfest high-volume, recycling tanks.

# Stone Fruit:

Use Scholar for the control of certain post-harvest diseases caused by *Monilinia* spp. (brown rot), *Botrytis cinerea* (gray mold), *Rhizopus stolonifier* (Rhizopus rot), and *Gilbertella persicaria* (Gilbertella rot).

Do not make more than one post-harvest application to the fruit.

Apricot (*Prunus armeniaca*), Nectarine (*Prunus persica*), Peach (*Prunus persica*), Plum (*Prunus domestica, Prunus* spp.), Plum, Chickasaw (*Prunus angustifolia*), Plum, Damson (*Prunus domestica* spp. insititia), Plum, Japanese (*Prunus salicina*), Plumcot (Prunus armeniaca × P. domestica), Prune (fresh), (*Prunus domestica, Prunus* spp.), as well as other cultivars and hybrids of these.

<u>High Volume (Dilute) Application</u>: Mix 8-16 oz. Scholar in 25-100 gals. of an appropriate water, wax/oil emulsion, or aqueous dilution of a wax/oil emulsion for the crop being treated. Apply to 200,000 lbs. of fruit. Use T-Jet or similar application system.

Low Volume (Concentrate) Application: Mix 8-16 oz. of Scholar in 7-25 gals of water, wax/emulsion, or aqueous dilution of wax/oil emulsion for the crop being treated. Apply to 200,000 lbs. of fruit. Use a control droplet-type application or similar system. For maximum efficacy, use low volume concentrate application systems for treatment of plums.

<u>Dip Application</u>: Mix 8-16 oz. of Scholar in 100 gals. of water, wax/emulsion, or aqueous dilution of wax/oil emulsion. Dip for approximately 30 seconds and allow fruit to drain. Treat fruit only once. Dip solution should be replaced with fresh dip solution after 200,000 pounds of fruit has been treated.

**NOTE:** Ensure the Scholar solution remains in suspension by using agitation. Scholar may be degraded by exposure to direct sunlight. Treated fruit should not be stored in direct sunlight.

**Cherries:** Cherry, sweet (*Prunus avium*), Cherry, tart (*Prunus cerasus*), as well as other cultivars and hybrids of these.

<u>High Volume (Dilute) Application</u>: Mix 8 oz. product in 100 gals. of water. Treat 50,000 lbs. of fruit. Use flooders, T-jet, or similar application system.

**NOTE**: Ensure the Scholar solution remains in suspension by using agitation. Scholar may be degraded by exposure to direct sunlight. Treated fruit should not be stored in direct sunlight.

### YAM

Use Scholar for the control of certain post-harvest rots caused by *Penicillium* and *Fusarium* species.

<u>Post-Harvest Dip Application:</u> Mix 8-16 oz. of Scholar in 100 gals. of an appropriate water, wax/emulsion, or aqueous dilution of wax/oil emulsion. Dip for approximately 30 seconds and allow tubers to drain.

Do not make more than one post-harvest application to the tubers.

**NOTE**: Ensure the Scholar solution remains in suspension by using agitation. Scholar may be degraded by exposure to direct sunlight. Treated tubers should not be stored in direct sunlight.

# **Sweet Potatoes**

Use Scholar as a post-harvest dip and low volume application for the control of postharvest rots caused by *Rhizopus stolonifer*.

<u>Post-harvest Dip Applications</u>: Mix 8-16 oz. of Scholar in 100 gals. of water, wax/emulsion, or aqueous dilution of wax/oil emulsion. Dip for approximately 30 seconds and allow the sweet potatoes to drain. Add 4 oz. of Scholar to 100 gals. of treating suspension after 500 bushels are treated. After each 1000 bushels treated, drain and flush the tank. Refill with fresh dip suspension.

Low Volume (Concentrate) Applications: Mix 8 oz. of Scholar in 7-25 gals. of water, wax/emulsion, or aqueous dilution of wax/oil emulsion for the crop being treated. In recirculating systems apply to 200,000 lbs. of sweet potatoes.

Do not make more than one post-harvest application to the sweet potatoes.

**NOTE:** Ensure the Scholar solution remains in suspension by using agitation. Scholar may be degraded by exposure to direct sunlight. Treated sweet potatoes should not be stored in direct sunlight.

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For non-emergency (e.g., current product information), call Syngenta Crop Protection at 1-800-334-9481.

# Product of Switzerland Formulated in the USA

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