

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

October 7, 2016

Adora Clark, Ph.D. Federal Team Lead, Fungicides Syngenta Crop Protection, LLC P.O. Box 18300 Greensboro, NC 27419

Subject: Label Amendment – FL DEP requested changes, corrects FRAC codes, removes subgroup 6C and revises application rates for beans, other minor revisions Product Name: A18993 Fungicide EPA Registration Number: 100-1475 Application Date: June 07, 2016 Decision Number: 518278

Dear Ms. Clark:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Page 2 of 2 EPA Reg. No. 100-1475 Decision No. 518278

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Fatima Sow by phone at (703) 347-8308, or via email at sow.fatima@epa.gov.

Sincerely,

Hope Johnson, Product Manager 21 Fungicide Branch Registration Division (7505P) Office of Pesticide Programs

Enclosure

	ACCEPTED	A18993 Fungicide Page 1
	Oct 07, 2016	
A18993 Fungicide Active Ingredients:	Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 100-1475	GROUP 7 3 FUNGICIDES
Propiconazole* Benzovindiflupyr**		l
Other Ingredients:		80.69%
Total:		100.0%

*CAS No. 60207-90-1 **CAS No. 1072957-71-1

Contains 1.04 lb ai of propiconazole active ingredient and 0.625 lb ai of benzovindiflupyr active ingredient per gallon

KEEP OUT OF REACH OF CHILDREN. DANGER/PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1475 EPA Est.

Product of

FIRST AID
If in eyes:
 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.
Call a poison control center or doctor for treatment advice.
If on skin or clothing
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.
If inhaled
Move person to fresh air.
• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably
mouth-to-mouth, if possible.
Call a poison control center or doctor for further treatment advice.
If swallowed
 Call a poison control center or doctor immediately for treatment advice.
 Have person sip a glass of water if able to swallow.
 Do not induce vomiting unless told to by a poison control center or doctor.
 Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for
treatment.
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.
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
Net Contents

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

DANGER

Corrosive to the eyes. Causes irreversible eye damage. Harmful if swallowed, inhaled or absorbed through skin. Do not get in eyes or on skin or clothing. Avoid breathing spray mist. Avoid contact with skin, eyes or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Protective eyewear (goggles, face shield, or safety glasses)
- Chemical-resistant gloves (barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or Viton®).

User Safety Requirements

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. 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.

Engineering Control Statements

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 modified as specified in the WPS.

User Safety Recommendations Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 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.

Environmental Hazards

Benzovindiflupyr and propiconazole are toxic to fish. Benzovindiflupyr is toxic to aquatic invertebrates and mammals. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated area.

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.

Surface Water Advisory

This product may impact surface water quality due to runoff of rain water or irrigation water. This is especially true for poorly draining soils and soils with shallow ground water. A 15-foot level vegetative

buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of benzovindiflupyr and propiconazole from runoff water and sediment. Do not cultivate within 15 feet of the aquatic areas to allow growth of a vegetative filter strip. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours. Sound erosion control practices will reduce this product's potential to reach aquatic sediment via runoff.

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, LLC or Seller. To the extent permitted by 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 this 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 agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

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

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
- Protective eyewear (goggles, face shield, or safety glasses)
- Chemical-resistant gloves (barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or Viton®).
- Shoes plus socks

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.

PRODUCT INFORMATION

A18993 is a broad-spectrum product containing two fungicides propiconazole and benzovindiflupyr. It has preventive, systemic and curative properties and may be used for the control of many important listed plant diseases on specified crops. A18993 provides excellent disease control of many leaf spots and powdery mildews. A18993 is applied as a foliar spray and can be used in block, alternating spray or tank-mix programs with other crop protection products. All applications must be made according to the use directions that follow.

USE INFORMATION

Application: Thorough coverage is necessary to provide good disease control. Make no more spray solution than is needed for application. Avoid spray overlap, as crop injury may occur.

Adjuvants: For best performance, the addition of a spreading/penetrating type adjuvant such as organosilicon blends with either non-ionic surfactants (NIS) or vegetable based crop oil concentrate (COC); or vegetable based COC (not mineral); or NIS with at least 90% concentration is recommended. When an adjuvant is to be used with this product, Syngenta recommends the use of a Chemical Producers and Distributors Association certified adjuvant. **Efficacy:** Under certain conditions conducive to extended infection periods, use another registered fungicide for additional applications if the maximum amount of A18993 has been used. If resistant isolates to Group 7 or Group 3 fungicides are present, efficacy can be reduced for certain diseases. The higher rates in the rate range and/or shorter spray intervals may be required under conditions of heavy infection pressure, with highly susceptible varieties, or when environmental conditions are conducive to disease.

Integrated Pest Management (IPM): A18993 should be integrated into an overall disease and pest management strategy whenever the use of a fungicide is required. Cultural practices known to reduce disease development should be followed. Consult your local agricultural authorities for additional IPM strategies established for your area. A18993 may be used in State Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development.

Resistance Management

GROUP 7 3 FUNGICIDES

A18993 contains two fungicides – propiconazole, a triazole fungicide in Group 3 and benzovindiflupyr, a succinate dehydrogenase inhibitor (SDHI) in Group 7. Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Because resistance development cannot be predicted, use of this product should conform to resistance management strategies established for the crop and use area. Consult your local or state agricultural authorities for resistance management strategies may include rotating and/or tank mixing with products having different modes of action or limiting the total number of applications per season. Syngenta encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label. A18993 should not be alternated or tank mixed with any fungicide to which resistance has already developed.

As part of a resistance management strategy:

- Apply no more than 2 sequential applications unless otherwise stated in the crop section.
- When tank mixing or alternating, use an effective partner one that provides satisfactory disease control when used alone at the mixture rate.
- Apply early to keep fungal populations low.
- Incorporate integrated pest management (IPM) practices into your program which can help reduce disease development and spread.

Rotational Crop Restrictions:

Rotational Crops	Planting Time From Last A18993 Application
Canola	
Cereals (wheat, barley, triticale, oat, rye)	
Corn	
Pea and bean, dry shelled, except soybean	0 days
Peanuts	
Soybean	
Sweet corn	
Cotton	
Cucurbits vegetables	
Fruiting vegetables	105 dava
Potatoes	105 days
Tomatoes	
Tuberous & corm subgroup 1C	

Legume subgroup 6C	
All other crops Intended for Food and Feed	180 days

Restriction: Do not plant any other crop intended for food, grazing, or any component of animal feed within 105 days of A18993 application to the preceding crop, unless the second crop appears on this label.

Crop Tolerance: Plant tolerance has been found to be acceptable for all crops on the label, however, not all possible tank-mix combinations have been tested under all conditions. When possible, it is recommended to test the combinations on a small portion of the crop to ensure that a phytotoxic response will not occur as a result of application.

Greenhouse Use Restrictions: To help manage fungicide resistance, do not use A18993 use for commercial transplant production. To avoid potential plant growth regulator effects with propiconazole, do not use in greenhouse unless specified for that crop.

Spray Drift Management: To avoid spray drift, do not apply when conditions favor drift beyond the target area. The interaction of many equipment and weather related factors determine the potential for spray drift. AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

MIXING AND APPLICATION METHODS

Spray Equipment

Nozzles

- Equip sprayers with nozzles that provide accurate and uniform application.
- Nozzles should be the same size and uniformly spaced across the boom.
- Calibrate sprayer before use.
- It is suggested that screens be used to protect the pump and to prevent nozzles from clogging.
- Screens placed on suction side of pump should be 16-mesh or coarser.
- Do not place a screen in the recirculation line.
- Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles.
- Check nozzle manufacturer's recommendations.

Pump

- Use a pump with capacity to:
 - (1) Maintain 35-40 psi at nozzles.
 - (2) Provide sufficient agitation in tank to keep mixture in suspension this requires recirculation of 10% of tank volume per minute.
- Use a jet agitator or liquid sparge tube for agitation.
- Do not air sparge.

For more information on spray equipment and calibration, consult sprayer manufacturer's and state recommendations. For specific local directions and spray schedules, consult the current state agricultural recommendations.

Mixing Instructions

- A18993 is an emulsifiable concentrate (EC) formulation.
- Prepare no more spray mixture than is required for the immediate operation.
- Thoroughly clean spray equipment before using this product.
- Agitate the spray solution before and during application.

• Rinse spray tank thoroughly with clean water after each day's use and dispose of pesticide rinsate by application to an already treated area.

A18993 Alone (No Tank Mix)

- Add $\frac{1}{2}-\frac{2}{3}$ of the required amount of water to the spray or mixing tank.
- With the agitator running, add A18993 to the tank.
- Continue agitation while adding the remainder of the water.
- Begin application of the spray solution after A18993 has completely dispersed into the mix water.
- Maintain agitation until all of the mixture has been sprayed.

A18993 + Tank Mixtures: A18993 is usually compatible with all tank-mix partners listed on this label. To determine the physical compatibility of A18993 with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water dispersible 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.

Tank Mixtures: All directions for use, crops/sites, use rates, dilution rates, precautions, and limitations which appear on the tank-mix product label must be observed. The label dosage for the tank-mix partner is not to be exceeded, and the most restrictive label precautions and limitations are to be followed.

Mixing in the Spray Tank

- Add $\frac{1}{2}-\frac{2}{3}$ of the required amount of water to the spray or mixing tank.
- With the agitator running, add the tank-mix partner(s) into the tank in the same order as described above.
- Allow the material to completely dissolve and disperse into the mix water. Continue agitation while adding the remainder of the water and A18993 to the spray tank.
- Allow A18993 to completely disperse.
- Spray the mixture with the agitator running.

Application Instructions

A18993 may be applied with all types of spray equipment commonly used for making ground and aerial applications. Proper adjustments and calibration of spraying equipment to give good canopy penetration and coverage is essential for good disease control.

Ground Application

- Apply in a minimum of 10 gallons of water per acre, unless specified otherwise.
- Do not apply through any ultra-low volume (ULV) spray system.
- Thorough coverage is necessary to provide good disease control.

Ground Application Restrictions

OBSERVE THE FOLLOWING RESTRICTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES OR NATURAL PONDS, ESTUARIES, AND COMMERCIAL FISH PONDS.

- Do not apply within 15 ft of bodies of water such as lakes, reservoirs, rivers, permanent streams, natural ponds, marshes or estuaries.
- Shut off the sprayer when row ends.
- Do not cultivate within 15 ft of aquatic areas in order to allow growth of a vegetative filter strip.

- Do not apply when weather conditions favor drift to aquatic areas. Do not apply when gusts or sustained winds exceed 10 mph.
- Do not apply during a temperature inversion. Mist or fog may indicate the presence of an inversion in humid areas.

Aerial Application Restrictions

Observe the following restrictions when spraying in the vicinity of aquatic areas such as lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.

- Use only on crops where aerial applications are allowed.
- Apply in a minimum of 2 gallons of water per acre unless specified otherwise.
- Do not apply through any ultra-low volume (ULV) spray system.
- Do not apply by air within 150 ft of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish ponds.
- Do not make applications more than 10 feet above the crop canopy.
- Do not apply when weather conditions favor drift to aquatic areas. Do not apply when gusts or sustained winds exceed 10 mph.
- Do not apply during a temperature inversion. Mist or fog may indicate the presence of an inversion in humid areas.

Aerial Spray Precautions

- For aerial applications, mount the spray boom on the aircraft so as to minimize the drift caused by wing tip vortices. Use the minimum practical boom length, which must not exceed 75% of wing span or rotor diameter.
- Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orientating nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.
- Release spray at the lowest height consistent with pest control and flight safety.
- Risk of exposure to aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.
- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic area. Avoid spraying during conditions of low humidity and/or high temperatures.
- Thorough coverage is necessary to provide good disease control.
- Avoid application under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur.

Application Through Irrigation Systems (Chemigation)

- Use only on crops where chemigation is specified on this label.
- Apply this product only through center pivot, solid set, hand move, or moving wheel 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 product in the water.
- Apply in 0.1-0.25 inches/acre. Excessive water may reduce efficacy.
- 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.

Operating Instructions

- 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 backflow.
- 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 which 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.

Center Pivot Irrigation Equipment

Restrictions: (1) Use only with drive systems which provide uniform water distribution. (2) Do not use end guns when chemigating A18993 through center pivot systems because of non-uniform application.

- Determine the size of the area to be treated.
- Determine the time required to apply ½-½ inch of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. When applying A18993 through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution. Run the system at 80-95% of the manufacturer's rated capacity.
- Using water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of A18993 required to treat the area covered by the irrigation system.
- Add the required amount of A18993 and sufficient water to meet the injection time requirements to the solution tank.
- Make sure the system is fully charged with water before starting injection of the A18993 solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
- Maintain constant solution tank agitation during the injection period.
- Continue to operate the system until the A18993 solution has cleared the sprinkler head.

Solid Set, Hand Move, and Moving Wheel Irrigation Equipment

- Determine the acreage covered by the sprinklers.
- Fill injector solution tank with water and adjust flow rate to use the contents over a 20- to 30-minute interval. When applying A18993 through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of A18993 required to treat the area covered by the irrigation system.

- Add the required amount of A18993 into the same quantity of water used to calibrate the injection period.
- Operate the system at the same pressure and time interval established during the calibration.
- Stop injection equipment after treatment is completed. Continue to operate the system until the A18993 solution has cleared the last sprinkler head.

SPECIFIC INSTRUCTIONS FOR 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, reducedpressure 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.
- 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.

Overview of Key Information

Crop*	Maximum Product Rate/A/application (fl oz/A)	Maximum total fl oz/A/year	Pre-Harvest Interval (PHI) (days)	Minimum Re- treatment Interval (days)
Beans, Dry	11.4	22.8	14	14
Blueberries (lowbush only)	13.7	13.7	365	na
Rapeseed Subgroup 20A (Canola)	13.7	13.7	30	na
Cereals	9.45	18.9	Feekes 10.5.4	14
Corn	9.45	18.9	30	14
Corn, sweet	13.7	27.4	30	14
Peanuts	18.3 13.7	41.1	30	21 14
Soybean (forage, hay, hulls, and seed)	9.45	18.9	21	14

*For specific crops in a group and use directions, refer to the Specific Directions for Use

The addition of a spreading/penetrating type adjuvant such as organo-silicon blends with either non-ionic surfactants (NIS) or vegetable based crop oils (COC); or vegetable based COC (not mineral); or NIS with at least 90% concentration is recommended.

For resistance management, make no more than two sequential applications of a Group 7 fungicide unless otherwise specified in the Directions for Use.

SPECIFIC DIRECTIONS FOR USE

		Use Rate	
Crop	Target Diseases	fl oz product/A	Remarks
Beans, Dry	Bean rust	11.4	Begin applications prior to disease
	(Uromyces		onset when conditions are conducive for
Bean	appendiculatus)		disease. Apply A18993 no closer than
(Cicer	Anthracnose		14 days.
arietinum)	(Colletotrichum		
(Lupinus	lindemuthianum)		For resistance management, make no
spp.)	Alternaria leaf spot		more than 2 applications before
(Phaseolus	(Alternaria alternata)		alternating to another fungicide with a
spp.)	Ascochyta leaf spot		non-Group 7 mode of action.
(<i>Vigna</i> spp.)	(Ascochyta		
(Vicia faba)	phaseolorum)		The addition of a spreading/penetrating
	Rust		type adjuvant such as organo-silicon
See below for	(<i>Phakopsora</i> spp.)		blends with either non-ionic surfactants
complete list	Southern blight		(NIS) or vegetable based crop oils
of dry beans.	(Sclerotium rolfsii)		(COC); or vegetable based COC (not
	Web blight		mineral); or NIS with at least 90%
	(Rhizoctonia solani)		concentration is recommended.
	Ascochyta blight		
	(Mycosphaerella		NOTE: On certain bean varieties,
	pinodes)		A18993 application may cause crinkled
	Ascochyta leaf and pod		and/or greener leaves. Yields of beans
	spot		displaying these characteristics have
	(Ascochyta spp.)		not been reduced.
	Alternaria blight		
	(Alternaria spp.)		

Dry Beans: *Cicer arietinum* (chickpea, garbanzo bean); *Lupinus* spp. (including sweet lupine, white sweet lupine, white lupine, and grain lupine), *Phaseolus* spp. (including kidney bean, lima bean (dry), mung bean, navy bean, and pinto bean); *Vicia faba* (broad bean (dry)); *Vigna* spp. (blackeyed pea and cowpea)

Application Instructions: For best results, sufficient water volume must be used to provide thorough coverage. A18993 may be applied by ground, air or chemigation. For chemigation apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease efficacy.

- 1) Do not apply more than 22.8 fl oz/A/year of A18993/crop/A.
- 2) Do not apply more than 0.112 lb ai/A/year of a benzovindiflupyr-containing product.
- 3) Do not apply more than 0.34 lb ai/A/year of a propiconazole-containing product.
- 4) Do not apply within 14 days of harvest (14-day PHI).

Crop	Target Diseases	Use Rate fl oz product/A (Ib ai/A)	Remarks
Blueberries (lowbush only)	Septoria leaf spot (<i>Septoria</i> spp.) Leaf rust (<i>Thekopsora minima</i>)	13.7	Apply only in the non-cropping year of production (i.e. vegetative or sprout phase of production). Apply at first sign of diseases. <i>Optional language if label has a rate</i> <i>range</i> : If disease pressure is high, use the highest rate.

Application: For best results, sufficient water volume must be used to provide thorough coverage. A18993 can be applied by ground or air.

Specific Use Restrictions:

1) Do not apply more than 13.7 fl oz/A/year of A18993.

2) Do not apply more than 0.068 lb ai/A/year of benzovindiflupyr-containing products.

3) Do not apply more than 0.84 lb ai/A/year of propiconazole-containing products.

4) Do not apply within 1 year of harvest (365 day PHI).

5) Do not apply more than one A18993 application per year.

		Use Rate	
Crop	Target Diseases	fl oz product/A	Remarks
Crop Cereals Wheat Barley Oats Triticale Rye	Larget Diseases Leaf Rust (Puccinia recondita f.sp. tritici) Stripe Rust (P. striiformis) Stem Rust (P. graminis) Crown Rust (P. coronata) Septoria Leaf and Glume Blotch (Septoria spp., Stagonospora nodorum) Tan Spot (Pyrenophora tritici- repentis) Net Blotch (Pyrenophora teres) Powdery Mildew (Blumeria spp.) Barley scald (Rhynchosporium secalis) Spot Blotch (Cochliobolus sativus) Black point (C. sativus, Alternaria spp.) Helminthosporium leaf spot (Dreschlera avenae) Suppression of: Fusarium head blight	9.45	Apply A18993 prior to disease development. Make applications no closer than 14 days apart. Apply 9.45 oz/A in the spring for suppression of early-season diseases. For disease control on the flag leaf: Apply 9.45 oz/A from Feekes 8 - 10.5.4 (Zadok's 71). The addition of a spreading/penetrating type adjuvant such as organo-silicon blends with either non-ionic surfactants (NIS) or vegetable based crop oils (COC); or vegetable based COC (not mineral); or NIS with at least 90% concentration is recommended.

Application: For best results, sufficient water volume must be used to provide thorough coverage. A18993 can be applied by ground, air, or chemigation. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

- 1) Do not apply more than 18.9 fl oz/A/year of A18993.
- 2) Do not apply more than 0.092 lb ai/A/year of benzovindiflupyr-containing products.
- 3) Do not apply more than 0.22 lb ai/A/year propiconazole-containing products.
- 4) Do not apply after Feekes 10.5.4 (watery ripe).
- 5) Do not apply more than 2 applications per year.

		Use Rate	
Crop	Target Diseases	fl oz product/A	Remarks
Corn	Anthracnose leaf blight	9.45	Begin applications prior to disease
	(Colletotrichum		onset when conditions are conducive
Field	graminicola)		for disease. Apply A18993 no closer
Popcorn	Gray leaf spot		than 14 days.
	(Cercospora sorghi)		
including	Northern corn leaf blight		For resistance management, make no
cultivars,	(Setosphaeria turcica)		more than 2 applications before
varieties,	Northern corn leaf spot		alternating to another fungicide with a
and/or	(Cochliobolus carbonum)		non-Group 7 mode of action.
hybrids of	Rust, common		
these and	(Puccinia sorghi;		The addition of a spreading/penetrating
others in this	Rust, southern		type adjuvant such as organo-silicon
group	(P. polysora)		blends with either non-ionic surfactants
	Southern corn leaf blight		(NIS) or vegetable based crop oils
	(Cochliobolus		(COC); or vegetable based COC (not
	heterostrophus)		mineral); or NIS with at least 90%
	Eye spot		concentration is recommended.
	(Aureobasidium zeae)		
	Physoderma brown spot		
	(P. maydis)		
	Yellow Leaf Blight		
	(Phyllosticta maydis)		

Application: For best results, sufficient water volume must be used to provide thorough coverage. A18993 can be applied by ground, air, or chemigation. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

- 1) Do not apply more than 18.9 fl oz/A/year of A18993.
- 2) Do not apply more than 0.092 lb ai/A/year of benzovindiflupyr-containing products.
- 3) Do not apply more than 0.45 lb ai/A/year of propiconazole-containing products.
- 4) Do not apply within 30 days of harvest for forage, grain, or stover (30 day PHI).
- 5) Do not apply more than 2 applications per year.

		Use Rate	
Crop	Target Diseases	fl oz product/A	Remarks
Corn, Sweet	Anthracnose leaf blight	9.5 – 13.7	Begin applications prior to disease
	(Colletotrichum		onset when conditions are conducive
	graminicola)		for disease. Apply A18993 no closer
	Gray leaf spot		than 14 days.
	(Cercospora sorghi)		
	Northern corn leaf blight		For resistance management, make no
	(Setosphaeria turcica)		more than 2 applications before
	Northern corn leaf spot		alternating to another fungicide with a
	(Cochliobolus carbonum)		non-Group 7 mode of action.
	Rust, common		
	(Puccinia sorghi;		The addition of a spreading/penetrating
	Rust, southern		type adjuvant such as organo-silicon
	(P. polysora)		blends with either non-ionic surfactants
	Southern corn leaf blight		(NIS) or vegetable based crop oils
	(Cochliobolus		(COC); or vegetable based COC (not
	heterostrophus)		mineral); or NIS with at least 90%
	Eye spot		concentration is recommended.
	(Aureobasidium zeae)		
	Physoderma brown spot		
	(P. maydis)		
	Yellow Leaf Blight		
	(Phyllosticta maydis)		

Application: For best results, sufficient water volume must be used to provide thorough coverage. A18993 can be applied by ground or chemigation. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

- 1) Do not apply more than 27.4 fl oz/A/year of A18993.
- 2) Do not apply more than 0.136 lb ai/A/year of benzovindiflupyr-containing products.
- 3) Do not apply more than 0.45 lb ai/A/year of propiconazole-containing products.
- 4) Do not apply within 30 days of harvest for forage, grain, or stover. (30 day PHI).
- 5) Do not exceed 2 applications per year.

		Use Rate	
Crop	Target Diseases	fl oz product/A	Remarks
Peanuts	Early leaf spot (<i>Cercospora</i> <i>arachidicola</i>) Late leaf spot (<i>Cercosporidium</i> <i>personatum</i>) Web blotch (<i>Phoma arachidicola</i>) Rust (<i>Puccinia arachidis</i>) Pepper spot (<i>Leptospherulina</i> <i>crassiasca</i>) Southern stem rot (<i>Sclerotium rolfsii</i>) Limb rot (<i>Rhizoctonia solani</i>) Suppression of: Cylindrocladium black rot (<i>C. crotalaria</i>) White mold (<i>Sclerotinia minor</i>)	13.7 – 18.3	 For leaf spots and other foliar diseases, begin foliar applications 30-40 days after planting or at the first appearance of disease. Apply 13.7 oz/A on a 14-day schedule or 18.3 oz/A on a 21- to 28-day schedule. Use the higher use rate under the following conditions: foliar disease present, conditions highly favorable for diseases, or delayed application timing (40-45 days). Check with local extension/forecasting systems to determine if an extended interval up to 21 days is suitable for your area. For control of Southern stem rot and limb rot, broadcast A18993 Fungicide either: a. 13.7 oz/A 3 times on a 14-day interval starting as early as 45-60 days after planting b. 18.3 oz/A 2 times on a 21- to 30-day interval beginning ca. 60 days after planting or when conditions are conducive for disease Optional language: An early (14-21 days after planting) application broadcast or in a 7-10 inch band over the row can be used for early season infections. Optional language for adjuvant recommendation: The addition of a spreading/penetrating type adjuvant such as organo-silicon blends with either non-ionic surfactants (NIS) or vegetable based COC (not mineral); or NIS with at least 90% concentration is recommended. Optional language if label has a rate range: If disease pressure is high, use the shortest interval. Optional language if label has a rate range and interval range: If disease pressure is high, use the shortest interval.

		Use Rate		
Crop	Target Diseases	fl oz product/A	Remarks	
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Application: For best results, use sufficient water volume to provide thorough coverage. A18993 may be applied by ground, air, or chemigation. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

Specific Use Restrictions:

1) Do not apply more than 41.1 fl oz/A/year of A18993.

2) Do not apply more than 0.204 lb ai/A/year of benzovindiflupyrl-containing products.

3) Do not apply more than 0.45 lb ai/A/year of propiconazole-containing products.

4) Do not apply within 30 days of harvest (30-day PHI).

		Use Rate fl oz product/A	
Crop	Target Diseases	(lb ai/A)	Remarks
Rapeseed Subgroup	Alternaria black spot (Alternaria brassicae)	13.7	For Phoma control, apply during the rosette stage between 2nd true leaf and
20A (Canola)	Black leg/Phoma (Leptosphaeria maculans)		bolting.
For listing of crops in this group, see	Cercospora leafspot (C. brassicicola) Head rot		For Alternaria, make an application at the end of flowering/early pod set. For other foliar diseases, apply at first sign of disease.
below.	(<i>Rhizoctonia solani</i>) Leaf spot and pod rot (<i>Alternaria alternata</i>)		For head rot, apply at 50% flowering.
	Powdery mildew (<i>Erysiphe polygoni</i>) Suppression of : Southern blight (<i>Sclerotium rolfsii</i>)		The addition of a spreading/penetrating type adjuvant such as organo-silicon blends with either non-ionic surfactants (NIS) or vegetable based crop oils (COC); or vegetable based COC (not mineral); or NIS with at least 90% concentration is recommended.

Application: For best results, sufficient water volume must be used to provide thorough coverage. A18993 can be applied by ground, air, or chemigation. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

Complete list of Oilseed subgroup 20A: Borage, crambe, cuphea, echium, flax seed, gold of pleasure, hare's ear mustard, lesquerella, lunaria, meadowfoam, milkweed, mustard seed, oil radish, poppy seed, rapeseed, sesame, sweet rocket and cultivars and/or hybrids of these

- 1) Do not apply more than 13.7 fl oz/A/year of A18993.
- 2) Do not apply more than 0.068 lb ai/A/year of benzovindiflupyrl-containing products.
- 3) Do not apply more than 0.113 lb ai/A/year of propiconazole-containing products.
- 4) Do not apply within 30 days of harvest (30 day PHI).
- 5) Do not apply more than one A18993 application per year.

Crop			
	Target Diseases	fl oz product/A	Remarks
Soybean	Aerial blight	9.45	Begin applications prior to disease
(forage, hay,	(R. solani)		onset when conditions are conducive
hulls, and	Alternaria Leaf Spot		for disease. Apply A18993 on a 14- to
seed)	(Alternaria spp.)		21-day schedule.
	Anthracnose		
	(Colletotrichum		For resistance management, make no
	truncatum)		more than 2 applications before
	Asian Soybean Rust		alternating to another fungicide with a
	(Phakopsora pachyrhizi)		non-Group 7 mode of action.
	Brown Spot		
	(Septoria glycines)		The addition of a spreading/penetrating
	Cercospora Blight and		type adjuvant such as organo-silicon
	Leaf Spot		blends with either non-ionic surfactants
	(C. kikuchii)		(NIS) or vegetable based crop oils
	Frogeye Leaf Spot		(COC); or vegetable based COC (not
	(Cercospora sojina)		mineral); or NIS with at least 90%
	Pod and Stem Blight		concentration is recommended.
	(Diaporthe phaseolorum)		
	Powdery Mildew		
	(Microsphaera diffusa)		
	Suppression:		
	Southern blight		
	(Sclerotium rolfsii)		

Application: For best results, sufficient water volume must be used to provide thorough coverage. A18993 can be applied by ground, air, or chemigation. May be applied in a minimum of 2 gallons per acre by air. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

Specific Use Restrictions:

1) Do not apply more than 18.9 oz/A/year of A18993.

2) Do not apply more than 0.092 lb ai/A/year of a benzovindiflupyr-containing product.

- 3) Do not apply more than 0.34 lb ai/A/year of a propiconazole-containing product.
- 4) Apply up to growth stage R6 for harvest for seed and 0 days for forage and hay.
- 5) Do not apply more than 2 applications per year.

A18993 Rate Conversion Table

FI Oz product/acre	Lb ai propiconazole	Lb ai benzovindiflupyr
9.45	0.076	0.046
9.5	0.077	0.046
11.0	0.089	0.054
11.4	0.093	0.056
12.0	0.098	0.059
12.8	0.104	0.063
13.7	0.111	0.067
15.0	0.122	0.074
18.0	0.146	0.089

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in original container only. Store in a cool, dry and well-ventilated place. Protect from excessive heat. Keep container closed when not in use. Do not store near food or feed.

Pesticide Disposal

Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal Law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

Container Handling [less than or equal to 5 gallons]

Non-refillable 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 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 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 by other procedures approved by state and local authorities.

Container Handling [greater than 5 gallons]

Non-refillable 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. 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. Turn the container 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 by other procedures approved by state and local authorities.

Container Handling [greater than 5 gallons]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump

for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

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

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Manufactured for: Syngenta Crop Protection, LLC P.O. Box 18300 Greensboro, North Carolina 27419-8300

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