



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
Registration Division (7505P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

432-1538

Date of Issuance:

06/17/2016

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Fluopyram 500 SC

Name and Address of Registrant (include ZIP Code):

Terrie Moore, Ph.D  
Regulatory Affairs Manager  
Bayer CropScience LP  
Environmental Science  
2 T.W. Alexander Drive,  
Research Triangle Park, NC 27709

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Chief, Fungicide and Herbicide Branch

Date:

06/17/2016

2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, “EPA Reg. No. 432-1538.”
3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

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.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 01/01/2014
- Alternate CSF 1 dated 01/02/2014
- Alternate CSF 2 dated 01/03/2014
- Alternate CSF 3 dated 01/04/2014

If you have any questions, please contact Gibson by phone at 703-305-9096, or via email at [gibson.tamue@epa.gov](mailto:gibson.tamue@epa.gov).

Enclosure: Stamped label dated 6/17/2016

# FLUOPYRAM 500 SC

Intended for use by commercial applicators.

For use on turf on golf courses, sod farms, sport fields, residential, institutional, municipal, commercial, and other turfgrass areas; ornamentals and crops in residential and commercial landscapes, interiorscapes, field grown and container crops in nurseries and greenhouses, lathouses, shadehouses, containers and other enclosed structures. For control of diseases of turf, ornamentals, and crops and for the protection against damage caused by certain plant pathogenic nematodes.

**Editorial Note – Marketing claim Positioned here**

[Image Placeholder]

Editorial Note – [Bracketed Text] is optional language

**ACTIVE INGREDIENT:**

Fluopyram\*: *N*-[2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]ethyl]-2-(trifluoromethyl)benzamide\* .....41.50%

**OTHER INGREDIENTS:**.....58.50%

**TOTAL:**.....100.00%

Contains 4.16 lbs fluopyram per gallon

\*(CAS Number **658066-35-4**)

**EPA Reg. No. 432-XXX**

EPA Est. \_\_\_\_\_

**Suspension Concentrate**

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

See [Back][Side] Panel for First Aid Instructions and [Leaflet][Booklet] for Complete Precautionary Statements and Directions for Use. (Note to reviewer: Location of additional precautionary statements, directions for use will vary between those listed, depending on container type/size.)

**For MEDICAL and TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577  
For PRODUCT USE Information Call 1-800-331-2867**

**NET Contents:**

**PRODUCED FOR**



A Division of Bayer CropScience, LP  
PO Box 12014 2 T.W. Alexander Drive  
Research Triangle Park, NC 27709

<p><b>ACCEPTED</b></p> <p>06/17/2016</p> <p>Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 432-1538</p>
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## FIRST AID

<b>If swallowed:</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If on skin or clothing:</b>	<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>
<b>In case of emergency call toll free the Bayer CropScience Emergency Response Telephone No. 1-800-334-7577. Have a product container or label with you when calling a poison control center or doctor, or going for treatment.</b>	
<b>NOTE TO PHYSICIAN:</b> Treat Symptomatically	

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE):

##### Applicators and other handlers must wear:

- Long-sleeved shirt
- long pants,
- shoes plus socks,
- chemical-resistant (such as nitrile or butyl) gloves.

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

#### ENGINEERING CONTROLS:

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

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 wash water or rinsate.

### Surface Water Label Advisories

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained 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 fluopyram.

### Ground Water Advisory

This chemical has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

### Run Off Management

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 LIMITATIONS OF WARRANTY AND LIABILITY

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, plant injury, other property damage, as well as other unintended consequences may result because of factors beyond the control of Bayer CropScience LP. Those factors include, but are not limited to, weather conditions, presence of other materials or the manner of use or application. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

**LIMITATIONS OF LIABILITY:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

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## DIRECTIONS FOR USE

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**It is a violation of federal law to use this product in a manner inconsistent with its labeling.  
Read entire label before using this product.**

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 over long-sleeved shirt and long pants,
- socks and shoes,
- chemical-resistant gloves made of any of any waterproof material such as natural rubber > 14 mils.

### 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 (WPS) 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 allow others to enter the treated area until sprays have dried.

## PRODUCT INFORMATION

FLUOPYRAM 500 SC is a broad spectrum fungicide with preventative, systemic, and curative properties for the control or suppression of certain turf, ornamental, and crop diseases.

FLUOPYRAM 500 SC is a protectant against damage caused by certain plant pathogenic nematodes.

### FOR USE ON:

- Turf on golf courses, sod farms, sport fields, residential, institutional, municipal, commercial, and other turfgrass areas.
- Ornamentals in residential and commercial landscapes, interiorscapes, field grown and container ornamentals in nurseries and greenhouses, lathhouses, shadehouses, containers and other enclosed structures.
- Crops in residential and commercial landscapes, interiorscapes, field grown and container crops in nurseries and greenhouses, lathhouses, shadehouses, containers and other enclosed structures.

## PRODUCT USE RESTRICTIONS

- Do not apply more than the maximum annual rate for each specific use from any combination of products containing FLUOPYRAM.

## RESISTANCE MANAGEMENT

The active ingredient in FLUOPYRAM 500 SC belongs to the pyridinyl-ethyl-benzamides (Group 7). To maintain long-term effectiveness of this fungicide, follow the specific resistance management guidance listed on this label. The following practices may delay the development of fungicide resistance.

**1. Start spray programs early:** Spray programs that begin before pathogens attack keep fungal populations low and reduce the likelihood of resistance. Consult your local extension specialist, certified advisor and/or manufacturer representative for recommendations on when to begin spray programs.

**2. Alternate products:** Use spray programs that include alternation of products from different fungicide groups. Group numbers are listed in a box at the top right of product labels.

**3. Use at least the minimum-labeled rate and do not extend spray intervals beyond label requirements:** Use of rates below the minimum-labeled rate can shorten the useful life of a fungicide. Furthermore, stretching application intervals too long may leave turf, ornamentals, and crops unprotected, allowing the pathogen population to multiply, and increasing the likelihood for resistance to develop.

**4. IPM:** Applications of fungicides should be integrated into an overall disease and pest management program. Cultural practices known to reduce disease development should be followed. Consult your local extension specialist, certified advisor and/or manufacturer representative for additional IPM strategies established for your area.

## CHEMIGATION APPLICATIONS

### Types of irrigation systems

FLUOPYRAM 500 SC may be applied by chemigation only through:

- **Sprinkler**
- **Drip**
- **Floor**
- **Furrow**
- **Border**

### Uniform Water Distribution and System Calibration

The chemigation system must provide uniform distribution of treated water. Plant injury, or lack of effectiveness, can result from non-uniform distribution of treated water. The chemigation system must be calibrated to uniformly apply the prescribed rates. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

### Chemigation Monitoring

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.

### Required System Safety Devices

#### Use for sprinkler or drip (trickle) chemigation:

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.

**For sprinkler systems:** Do not apply when wind speed favors drift beyond the area intended for treatment.

### **Use for floor, furrow and border chemigation:**

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from back flow if water flow stops.

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements: 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.

### **Using Water From Public Water Systems**

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.

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. 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 must 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 to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional automatic quick-closing check valve to prevent the flow of fluid back toward the injection. 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. 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. 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.

### **Injection For Chemigation**

Inject the specified dosage of FLUOPYRAM 500 SC into the irrigation main water stream: (1) through a constant flow, metering device; (2) into the center of the main line flow via a pivot tube or equivalent; (3) at a point ahead of at least one, right-angle turn in the main stream flow such that thorough mixing with the irrigation water is ensured.

### **Flushing and Cleaning The Chemical Injection System**

At the end of the application period, allow time for all lines to flush the pesticide through all nozzles or emitters before turning off irrigation water. To ensure the lines are flushed and free of pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

In order to apply pesticides accurately, the chemical injection system must be kept clean, free of chemical or fertilizer residues and sediments. Refer to your owner's manual or ask your equipment supplier for the cleaning procedure for your injection system.

## **SPRAY DRIFT MANAGEMENT**

### **Airblast (Air Assist) Applications for ornamental trees and crops**

Airblast sprayers carry droplets into the canopy of trees/vines via a radially, or laterally directed air stream. Follow the following specific drift management practices:

- Adjust deflectors and aiming devices so that spray is only directed into the canopy;
- Block off upward pointed nozzles when there is no overhanging canopy;
- Use only enough air volume to penetrate the canopy and provide good coverage;
- Do not allow the spray to go beyond the edge of the cultivated area (i.e., turn off sprayer when turning at end rows);
- Only spray inward, toward the tree stand, for applications to the outside rows.

## COMPATIBILITY TESTING AND TANK MIX PARTNERS

### Compatibility

FLUOPYRAM 500 SC is physically and biologically compatible with many registered pesticides and fertilizers or micronutrients. However, it is known that many components, including pesticides, fertilizers, micronutrients, and spray adjuvants, may be present in a tank mix combination. There is potential for adverse chemical reactions. It is impossible to determine physical, biological, and plant compatibility for all scenarios that may be encountered; therefore, users must determine the chemical, physical, biological and plant compatibility of such mixes prior to making applications on a broad commercial scale.

### Order of Mixing

FLUOPYRAM 500 SC may be used with other recommended pesticides, fertilizers, and micronutrients. The proper mixing procedure for FLUOPYRAM 500 SC alone or in tank mix combinations with other pesticides is:

1. fill the spray tank 1/4 to 1/3 full with clean water;
2. while recirculating and with the agitator running, add any products in PVA bags (**See Note**). Allow time for thorough mixing;
3. continue to fill spray tank with water until 1/2 full;
4. add any wettable powder (WP), water dispersible granule (WG/WDG) products, or "flowable" (FL/SC) type products;
5. allow enough time for thorough mixing of each product added to tank;
6. add required amount of FLUOPYRAM 500 SC, and;
7. if applicable, add any remaining tank mix components: emulsifiable concentrates (EC), fertilizers and micronutrients;
8. fill spray tank to desired level and maintain constant agitation to ensure uniformity of spray mixture.

**NOTE:** Do not use PVA packets in a tank mix with products that contain boron or release free chlorine. The resultant reaction of PVA and boron or free chlorine is a plastic that is not soluble in water or solvents.

## APPLICATION INFORMATION

Applications using sufficient water volume to provide thorough and uniform coverage generally provide the most effective disease control. Do not make applications when conditions favor drift beyond the target application area. Avoid spraying when windy, high temperature, drought, low relative humidity, or temperature inversion conditions exist.

### Ground Application

For ground application equipment, apply:

- 1 to 2 gallons of solution per 1000 sq. ft. for disease control on turf
- 2 to 4 gallons of solution per 1000 sq. ft. for protection against nematodes
- 50 to 100 gallons of solution per acre for disease control on ornamental plants and crops.

## IRRIGATION AND WATERING

When applying FLUOPYRAM 500 SC against nematodes irrigate or water in the product within [8], [12], [24] hours of application to the depth of the root zone to be protected.

## TURF USE DIRECTIONS

FLUOPYRAM 500 SC is a systemic fungicide, which may be used, in a seasonal program for the control of diseases such as dollar spot and prevention of nematode damage on common turfgrasses. Apply as a foliar spray, using 1 to 4 gallons of water per 1,000 square feet, as indicated in the "turf disease control use directions" table. Apply with a properly calibrated sprayer.

### TURF USE RESTRICTIONS

- Do not apply more than 13.7 fl. oz. of FLUOPYRAM 500 SC (0.446 lbs. a.i.) per acre per year.
- For residential turf, do not apply more than 12.4 fl. oz. of FLUOPYRAM 500 SC (0.404 lbs. a.i.) per acre per year.

## APPLICATIONS FOR TURF DISEASES CONTROL

### Turf Tolerance

Use FLUOPYRAM 500 SC in accordance with the prescribed label instructions on:

- all cool season turfgrasses such as Bentgrasses, Bluegrasses, Fescues, Ryegrasses, including mixtures thereof
- all warm season grasses such as Bermudagrass, St Augustinegrass, Seashore paspalum, Kikuyugrass, and Zoysiagrass.

[FLUOPYRAM 500 SC is not phytotoxic to these aforementioned grasses.]

### Turf disease control use directions

Disease Control	Application Rate (fl oz Product /1000 ft <sup>2</sup> )	Interval between Applications (days)	Application Directions
Dollar spot ( <i>Sclerotinia homeocarpa</i> )	0.08- 0.155	14-28	Begin fungicide applications preventatively. Reapply as needed but do not exceed maximum prescribed rates.
	0.04	7	

- Do not apply more than 13.7 fl. oz. of FLUOPYRAM 500 SC (0.446 lbs. a.i.) per acre per year.
- For residential turf, do not apply more than 12.4 fl. oz. of FLUOPYRAM 500 SC (0.404 lbs. a.i.) per acre per year.
- Rotation/Tank Mix Recommendation: Rotate with 26 GT Fungicide or [Interface Fungicide] [Interface STRESSGARD] for resistance management.

### Turf nematode control use directions

Target Pest	Application Rate (fl oz Product /1000 ft <sup>2</sup> )	Interval between Applications (days)	Application Directions
Plant pathogenic nematodes such as sting nematode and <i>Anguina pacifica</i>	0.155-0.31	Minimum 14	<b>Irrigate or water-in to the depth of root zone. For <i>Anguina pacifica</i> do not water in and irrigate only after the spray has completely dried.</b>  Begin applications preventively when conditions are favorable for nematode activity  Reapply as needed but do not exceed maximum prescribed rates.

- For residential turf, do not exceed rate of 0.28 fl oz per 1,000 sq ft. (12.4 fl. oz. or 0.404 lbs. a.i. per acre per year.)
- Rotation/Tank Mix Recommendation: use in program with Nortica.

**PRODUCT QUANTITY (FL OZ) by SPRAY VOLUME and TANK CAPACITY**

- FLUOPYRAM 500 SC at 0.155 fl oz per 1,000 ft<sup>2</sup>

<b>Spray Volume (Gal per 1,000 ft<sup>2</sup>) Spray Tank Capacity</b>	<b>1 Gal</b>	<b>2 Gal</b>	<b>3 Gal</b>	<b>4 Gal</b>	<b>5 Gal</b>
<b>25 Gal</b>	3.875 fl oz	1.938 fl oz	1.292 fl oz	0.969 fl oz	0.775 fl oz
<b>50 Gal</b>	7.750 fl oz	3.875 fl oz	2.583 fl oz	1.938 fl oz	1.550 fl oz
<b>100 Gal</b>	15.500 fl oz	7.750 fl oz	5.167 fl oz	3.875 fl oz	3.100 fl oz
<b>200 Gal</b>	31.000 fl oz	15.500 fl oz	10.333 fl oz	7.750 fl oz	6.200 fl oz

- FLUOPYRAM 500 SC at 0.31 fl oz per 1,000 ft<sup>2</sup>

<i>Spray Tank Capacity</i> Spray Volume (Gal per 1,000 ft <sup>2</sup> )	1 Gal	2 Gal	3 Gal	4 Gal	5 Gal
<b>25 Gal</b>	7.75 fl oz	3.88 fl oz	2.58 fl oz	1.94 fl oz	1.55 fl oz
<b>50 Gal</b>	15.50 fl oz	7.75 fl oz	5.17 fl oz	3.88 fl oz	3.10 fl oz
<b>100 Gal</b>	31.00 fl oz	15.50 fl oz	10.33 fl oz	7.75 fl oz	6.20 fl oz
<b>200 Gal</b>	62.00 fl oz	31.00 fl oz	20.67 fl oz	15.50 fl oz	12.40 fl oz

### **CURATIVE SPOT APPLICATIONS**

Curative Spot Treatments are prescribed for controlling diseases or nematodes over small areas where outbreaks are severe or expected to become severe. To make a Curative Spot Treatment, apply the highest prescribed dose of FLUOPYRAM 500 SC for the chosen target from the table above and repeat up to 4 times at the prescribed intervals. For curative spot treatments, treat no more than 10,000 sq. ft. per acre.

# ORNAMENTALS DIRECTIONS FOR USE

FLUOPYRAM 500 SC is a systemic fungicide that has curative and protectant properties that can be used for the control of foliar and flower diseases of listed ornamentals.

## ORNAMENTAL USE RESTRICTIONS

- Do not apply more than 13.7 fl. oz. of FLUOPYRAM 500 SC (0.446 lbs. a.i.) per acre per year.

## APPLICATIONS FOR ORNAMENTAL DISEASES CONTROL

### Application method

- Apply FLUOPYRAM 500 SC as a foliar spray to the point of drip, at the prescribed rates in 100 gallons of water or by drench or chemigation before disease is detected or when conditions are favorable for disease development. Continue at the prescribed interval until the disease threat is over. Under heavy disease pressure, use the highest rate and the shortest interval. Under light disease pressure, the application interval may be extended. Use of spray additives is not required. Any spray additive must be evaluated prior to use. Label directions are based on data with no additives.
- For spray or drench application do not exceed 100 gallon per acre of spray volume.

### Ornamental disease control use directions

The plants that FLUOPYRAM 500 SC have been tested on, diseases that are controlled and specific use directions are listed in the tables below.

Table 1 FLUPYRAM 500 SC has been tested for phytotoxicity and been found safe to the following plants*. The numbers in ( ) indicate the diseases listed in Table 2.	
Fir (4,5,6) Pine (4,5,6) Douglas Fir (4,5,6)	Spruce (4,5,6) Sunflowers, ornamental (1,2,3)

Table 2 Ornamental diseases controlled by FLUOPYRAM 500 SC					
Table 2 ref.	Disease		Application Rate (fl oz/100 gal)	Application Timing	Interval between Applications (days)
	Common Name	Scientific Name			
1.	Alternaria leaf spot	<i>Alternaria</i> spp.	6.8	Begin fungicide applications preventatively. Continue as needed. May be applied in furrow or as a band treatment.	14
2.	Powdery mildew	<i>Erysiphe</i> spp. ( <i>Erysiphe cichoracearum</i> )			
3.	Sclerotinia wilt and head rot	( <i>Sclerotinia sclerotiorum</i> )			
4.	Diplodia tip blight	( <i>Diplodia pinea</i> )	6.8	Begin fungicide applications preventatively. Continue as needed. When disease pressure is severe, use the shorter intervals.	7-21
5.	Lophodermium needlecast	( <i>Lophodermium pinastri</i> )			
6.	Swiss needlecast	( <i>Phaeocryptopus gaumannii</i> )			

- Do not apply more than 13.7 fl. oz. of FLUOPYRAM 500 SC (0.446 lbs. a.i.) per acre per year.
- May be applied using ground or chemigation equipment.
- To limit the potential for development of disease resistance to this fungicide class, do not make more than 2 sequential applications of FLUOPYRAM 500 SC or any Group 7-containing fungicide before rotating with a fungicide from a different Group.

- Due to the large number of species and varieties of ornamentals and nursery plants, it is impossible to test every one for tolerance. For additional desired plants/cultivars, treat several plants with the prescribed rates and evaluate the tolerance of treated plants.

## **CROPS DIRECTIONS FOR USE**

FLUOPYRAM 500 SC is a systemic fungicide that has curative and protectant properties that can be used for the control of foliar and flower diseases of listed crops.

FLUOPYRAM 500 SC is a protectant against damage caused by certain plant pathogenic nematodes.

### **CROP USE RESTRICTIONS**

- Do not apply more than 13.7 fl. oz. of FLUOPYRAM 500 SC (0.446 lbs. a.i.) per acre per year.

### **APPLICATIONS FOR CROP DISEASES CONTROL**

#### **Application method**

- Apply FLUOPYRAM 500 SC as a foliar spray to the point of drip, at the prescribed rates in 100 gallons of water or by drench or chemigation before disease is detected or when conditions are favorable for disease development. Continue at the prescribed interval until the disease threat is over. Under heavy disease pressure, use the highest rate and the shortest interval. Under light disease pressure, the application interval may be extended. Use of spray additives is not required. Any spray additive must be evaluated prior to use. Label directions are based on data with no additives.
- For spray or drench application do not exceed 100 gallon per acre of spray volume.

#### **Crop disease control use directions**

The plants that FLUOPYRAM 500 SC have been tested on, diseases that are controlled and specific use directions are listed in the table below.

Plant	Disease	Application Rate (fl oz/100 gal)	Application Timing	Interval between Applications (days)	Pre-Harvest Interval
Christmas trees	Diplodia tip blight ( <i>Diplodia pinea</i> )	6.8	Begin fungicide applications preventatively. Continue as needed. When disease pressure is severe, use the shorter intervals.	7-21	N/A
	Lophodermium needlecast ( <i>Lophodermium pinastri</i> )				
	Swiss needlecast ( <i>Phaeocryptopus gaumannii</i> )				
Citrus	Alternaria brown spot ( <i>Alternaria alternata</i> )	4.8-6.8	Begin fungicide applications preventatively. Continue as needed. When disease pressure is severe, use the shorter intervals.	7-21	7 day
	Scab ( <i>Elsinoe fawcettii</i> )				
Grapes and Small Vine Fruits	Powdery mildew ( <i>Uncinula necator</i> )	3.2 to 6.8	Begin fungicide applications preventatively. Continue as needed. When disease pressure is severe, use the higher rates and/or shorter intervals.  Drip applications are effective for control of this disease. Use the high rate when applying via drip equipment.	12-21	7 day
	Botrytis bunch rot / Gray mold ( <i>Botrytis cinerea</i> )	6.8	Applications must be made at the critical timings for Botrytis control. Typically, first applications are made at early bloom. Use sufficient water to ensure penetration of the canopy and coverage of the flowers. When disease pressure is severe, use shorter intervals.	12-21	7 day
	Black rot ( <i>Guignardia bidwellii</i> ) (Suppression)	6.8	Begin fungicide applications preventatively. Continue as needed. When disease pressure is severe, use the shorter intervals.	12-21	7 day

Pome fruits	Powdery mildew ( <i>Podosphaera leucotricha</i> )	2.4 to 6.8	Begin fungicide applications preventatively. Continue as needed. When disease pressure is severe, use the higher rates and/or shorter intervals.  Drip applications are effective for control of this disease. Use the high rate when applying via drip equipment.	7-14	7 day
	Scab, leaf ( <i>Venturia</i> spp.)	4.0 to 6.8	Begin applications at green tip or as soon as environmental conditions become favorable for disease development. When disease pressure is severe, use the higher rates and/or shorter intervals.	7-10	7 day
	Sooty blotch ( <i>Gloeodes pomigena</i> ) (Suppression) Fly speck ( <i>Schizothyrium pomi</i> ) (Suppression)	6.8	Begin fungicide applications preventatively. Continue as needed. When disease pressure is severe, use the shorter intervals.	7-10	7 day
Stone fruits	Powdery mildew Rusty spot ( <i>Podosphaera</i> spp.) ( <i>Sphaerotheca pannosa</i> )	4.0 to 6.8	Begin applications preventatively, or at bud stage. When disease pressure is severe, use the higher rates and/or shorter intervals.  Drip applications are effective for control of this disease. Use the high rate when applying via drip equipment.	5 - 7	day of harvest
	Brown rot blossom blight Fruit rot ( <i>Monilinia</i> spp.)  Shot hole ( <i>Wilsonomyces carpophilus</i> )	4.0 to 6.8	Begin applications preventatively, or at bud stage. When disease pressure is severe, use the higher rates and/or shorter intervals.	If conditions are favorable for disease development, apply again at full bloom and at petal fall, or on a 5- to 7-day schedule	day of harvest
	Scab ( <i>Cladosporium carpophilum</i> )	4.8 to 6.8	Begin fungicide applications preventatively. Continue as needed. When disease pressure is severe, use the higher rates and/or shorter intervals.	5-7	day of harvest
	Cherry leaf spot ( <i>Blumeriella jaapii</i> )	6.8	Begin fungicide applications preventatively. Continue as needed.	5-7	day of harvest

	Jacket rot Green fruit rot ( <i>Botrytis cinerea</i> )		When disease pressure is severe, use the shorter intervals.		
Sunflower	Alternaria leaf spot ( <i>Alternaria</i> spp.)  Powdery mildew ( <i>Erysiphe cichoracearum</i> )  Sclerotinia wilt and head rot ( <i>Sclerotinia sclerotiorum</i> )	6.8	Begin fungicide applications preventatively. Continue as needed. May be applied in furrow or as a band treatment.	14	14 days

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- May be applied using ground or chemigation equipment.
- To limit the potential for development of disease resistance to this fungicide class, do not make more than 2 sequential applications of FLUOPYRAM 500 SC or any Group 7-containing fungicide before rotating with a fungicide from a different Group.

## Crop nematode control use directions

Apply FLUOPYRAM 500 SC by drench or chemigation when conditions are favorable for nematode activity. Continue at the prescribed interval until the threat of nematode damage is over.

Plant	Target Pest	Application Rate fl oz/acre	Application Timing	Interval between Application (days)
Citrus	Plant pathogenic nematodes	6.8	<p><b>Soil Applications</b> - Apply specified dosage by drench, or by chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment. For optimum results, apply to newly planted trees or those previously trained to drip, trickle or micro-sprinkler irrigation. Soil must be lightly pre-wetted to break soil surface tension prior to applications. Continue as needed.</p> <p>For control of citrus nematode, apply specified dosage through low-pressure chemigation, ensuring complete coverage of the root system and utilizing application directions stated above.</p>	Minimum 30

- Do not apply more than 13.7 fl. oz. of FLUOPYRAM 500 SC (0.446 lbs. a.i.) per acre per year.

## CURATIVE SPOT TREATMENTS:

Curative Spot Treatments are prescribed for controlling diseases or nematodes over small areas where outbreaks are severe or expected to become severe. To make a Curative Spot Treatment, apply the highest prescribed dose of FLUOPYRAM 500 SC for the chosen target from the table above and repeat up to 4 times at the prescribed intervals. For curative spot treatments, treat no more than 10,000 sq. ft. per acre.

## STORAGE AND DISPOSAL

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

### PESTICIDE STORAGE

Store in original container and keep tightly closed when not in use. Store in a cool, dry place. Avoid cross-contamination with other pesticides.

### PESTICIDE DISPOSAL

Pesticides wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate 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 Hazardous Waste representative at the nearest EPA regional office for guidance in proper disposal methods.

### CONTAINER HANDLING

#### **Rigid Non-refillable Containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs)**

Non-refillable container. Do not reuse or refill this container. Refer to Bottom Discharge IBC or Top Discharge IBC, Drums, Kegs information as follows.

#### **Bottom Discharge IBC (e.g. – Schuetz Caged IBC or Snyder Square Stackable)**

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more

complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration.

**Top Discharge IBC, Drums, Kegs (e.g.– Snyder 120 Next Gen, Bonar B120, Drums, Kegs)**

Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration.

**Non-Seed Treatment Products in Non-Refillable Fiber Drums with Liners**

Non-refillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment, then offer for recycling if available or dispose of in a sanitary landfill or by incineration. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

**Non-Seed Treatment Products in Non-Refillable Foil outer pouches of Water soluble Packets (WSP)**

Offer foil pouch for recycling if available or dispose of empty pouch in the trash as long as WSP is unbroken.

**Rigid Non-Refillable containers with capacities smaller or equal to 5 gallons**

**PLASTIC CONTAINERS:**

Non refillable container. Do not reuse or refill this container. Tripled rinse container (or equivalent) promptly after emptying.

***LIQUID Dilutable formulations:***

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 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.

FLUOPYRAM 500 SC (PENDING) 03/31/2014, 04/22/2015, 04/28/15, 04/29/2015, 05/04/2015, 05/05/2015, 05/07/2015, 05/12/2015, 11/24/2015, 12/10/2015, 01/15/2016, 05/20/2016, 05/23/2016, 06/03/2016, 06/14/2016

[Optional Marketing claims]

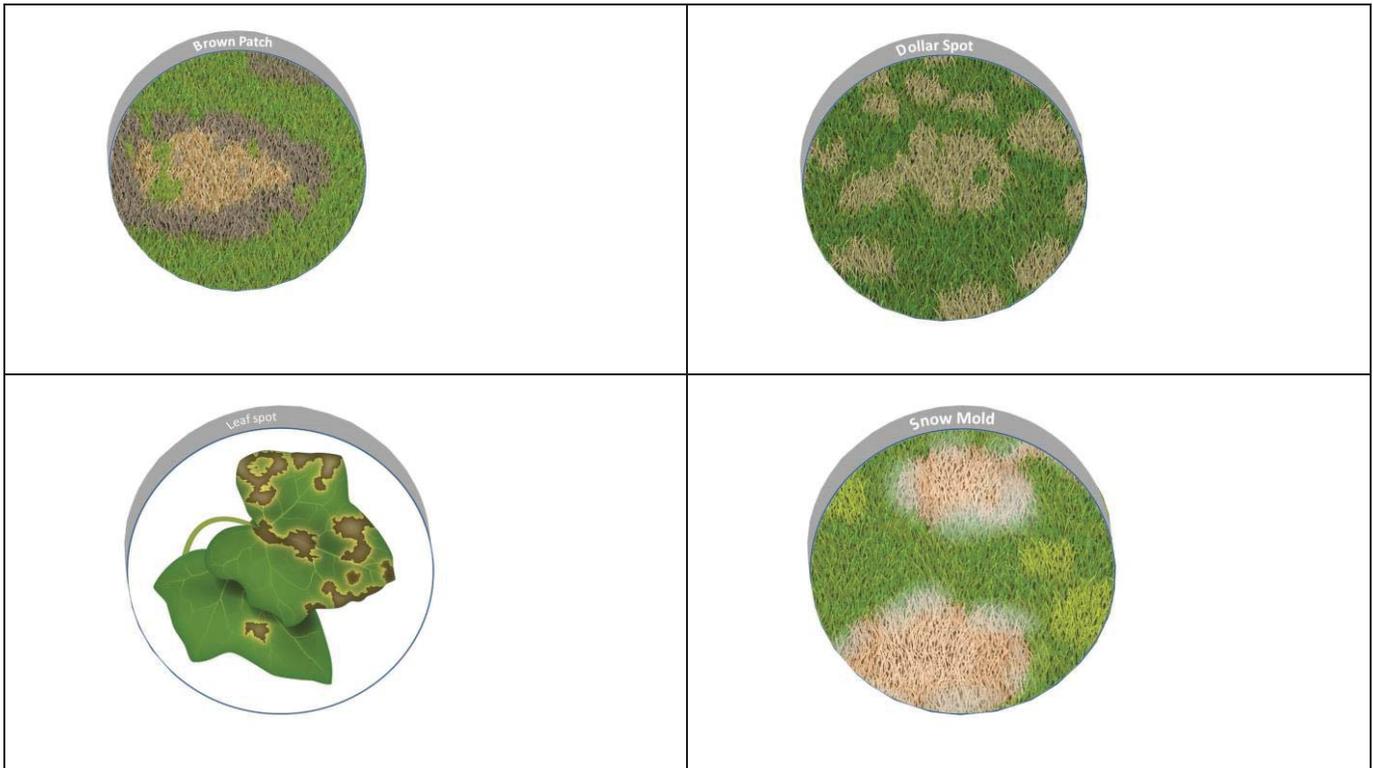
Pictures:

[Picture of **Dollar spot**]

[Picture of **Pink Snow mold**]

[Picture of **Brown patch**]

[Picture of **Leaf spot**]



Technical claims:

[Produces greener and more dense turf]

[Reduces dew formation]

[Reduces leaf wetness periods due to dew or irrigate droplet retention]

[Fast recovery from stress periods]

[Fast closure of turf surface after aerification]

[Enhanced root growth in the presence of plant pathogenic nematodes]

[Enhanced leaf color in the presence of plant pathogenic nematodes]

[Reduces populations of plant pathogenic nematodes]