



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

January 12, 2023

Tim Joseph
Regulatory Agent
Plant Food Systems, Inc.
c/o Landis International, Inc.
P.O. Box 3126
Valdosta, GA 31603

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment – Revision to add 4 ABNs and revise the use sites and uses section, in addition to add graphics on the label in the directions for use section
Product Name: PFS 516 Systemic Fungicide Bactericide
EPA Registration Number: 73806-3
EPA Receipt Date: 8/30/2022
Action Case Number: 00389551

Dear Mr. Joseph:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

The alternate brand names: *Phloem Plus Systemic Fungicide Bactericide*, *Silver Bullet Systemic Fungicide Bactericide*, *Saver Systemic Fungicide Bactericide*, *Xylem PK Systemic Fungicide Bactericide* have been added to the registration, and our records have been updated accordingly. This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or 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 (1) copy of the final printed labeling before you release this 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 your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the U.S. Environmental Protection Agency (EPA). If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists 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 EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA

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section 3 registration, the website will be referred to EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact James Parker via email at parker.james@epa.gov.

Sincerely,



Andrew Bryceland, Team Leader
Biochemical Pesticides Branch
Biopesticides and Pollution
Prevention Division (7511M)
Office of Pesticide Programs

Enclosure

ACCEPTED

Jan 12, 2023

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 73806-3

MASTER LABEL

PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE

Alternate Brand Names: Renew HLB Systemic Fungicide Bactericide, Bullet HLB Systemic Fungicide Bactericide, and HLB Bullet Systemic Fungicide Bactericide, Phloem Plus Systemic Fungicide Bactericide, Silver Bullet Systemic Fungicide Bactericide, Saver Systemic Fungicide Bactericide, Xylem PK Systemic Fungicide Bactericide.

PRODUCT INFORMATION:

A SYSTEMIC FUNGICIDE BACTERICIDE FOR THE CONTROL OF DOWNY MILDEW, HUANGLONGBING (HLB, CITRUS GREENING DISEASE) ON CITRUS, PHYTOPHTHORA, PYTHIUM, AND VARIOUS OTHER DISEASES ON AGRICULTURAL AND GREENHOUSE CROPS, AND TURF.

ACTIVE INGREDIENTS:

Dipotassium phosphonate	21.00%
Dipotassium phosphate	24.50%
OTHER INGREDIENTS:	<u>54.50%</u>
TOTAL.....	100.00%

*Contains 2.25 lbs/gallon Dipotassium phosphonate. Equivalent to 1.168 lbs/gallon (10.64% by weight) phosphorous acid.

*Contains 2.53 lbs/gallon Dipotassium phosphate. Equivalent to 1.440 lbs/gallon (13.16% by weight) phosphoric acid.

*PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE'S unique manufacturing process and molecule are protected by the following patents:

Reactor: 4724132

Molecule: 7887616, 8088191, 8193119, 8207089,
8216972, 8221516, 5736164, 5800837, 5925383, 5997910,
6338860, 6509041, 10040046, MX: 20992

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID STATEMENTS	
If in eyes	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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.
HOT LINE NUMBER	
Have the container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the National Pesticide Information Center (NPIC) at 1-800-858-7378 for emergency medical treatment information.	

See Inside booklet for First Aid and Additional Precautionary Statements.

NET CONTENTS

- 2 1/2 gallons
- 5 gallons
- 30 gallons
- 55 gallons

MANUFACTURED BY:
PLANT FOOD SYSTEMS, INC
2827 Union St. P.O. Box 775
Zellwood, FL 32798

EPA Reg. No. 73806-3
EPA Est. No. 73806-FL-001

Batch No.

PRECAUTIONARY STATEMENTS**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

CAUTION: Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling. Wash thoroughly with soap and water before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

All mixers, loaders, applicators and other handlers must wear long-sleeved shirt and long pants, shoes plus socks, chemical-resistant gloves and protective eyewear. Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENT

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 BOX

Users should remove PPE/clothing immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

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

(For containers with contents greater than 5 gallons Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.)

DIRECTIONS FOR USE

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 person, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated such as plants, soil, or water, is: coveralls over long-sleeved shirt and long pants, socks, shoes, chemical resistant gloves and protective eyewear.

NON-AGRICULTURAL USE REQUIREMENTS

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

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

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

APPLICATION DIRECTIONS

GENERAL APPLICATION INSTRUCTIONS

Apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE by various application methods, including foliar sprays, trunk injection, soil drench, soil incorporation, and bare root dip. For foliar sprays, apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE with sufficient water for adequate coverage of foliage, according to crop and growth stage. To insure good coverage, spray to wet.

MIXING INSTRUCTIONS

1. Fill the spray tank with 1/2 of the required volume of water.
2. Add PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE slowly to the tank and agitate by hydraulic or mechanical means.
3. Continue to fill the tank with water to the desired volume while agitating.
4. Continue agitation when applying.

For 1-gallon (3.785 liters) container sizes: this package can treat up to 34,848 sq. ft. at the maximum treatment rate. For 2 ½-gallon (9.463 liters) container sizes: this package can treat up to 2 acres at the maximum treatment rate. For 5-gallon (18.925 liters) container sizes: this package can treat up to 4 acres at the maximum treatment rate.

LOW VOLUME AND ULTRA-LOW VOLUME APPLICATIONS

Label rates are written for conventional application equipment. For LV/ULV equipment, use per acre rate of PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE and adjust amount of water to equipment needs. Always conduct a phytotoxicity test on a small area before applying to a large area in order to assess any potential risk to plants.

COMPATIBILITY

Mixing PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE with certain surfactants, foliar fertilizers or other pesticides may cause crop injury. Do not mix PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE without first testing the mixture's compatibility nor apply it without assessing its safety to the crop (phytotoxicity). It is not possible to test all material combinations and environmental tank mix combinations. Always conduct a test with the intended tank mix on a small area prior to any large-scale applications. To determine if a combination is phytotoxic to a specific crop, spray a small area of foliage and fruit, and then evaluate 3-7 days later for visual symptoms.

Test the compatibility of spray adjuvants (i.e. stickers, spreaders, wetting agents) with PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE before use.

To determine the compatibility of PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE with other products, use a jar compatibility test. Add the correct proportions of each product and the appropriate quantity of water to clean container as follows: Measure water. Adjust pH, if necessary, with buffer or acidifier. Add pesticides to the diluent as follows: 1. Dry flowable and wettable powder formulation (1Tbsp for each pound per 100 gallons of final spray mixture. 2. Agitate thoroughly. 3. Liquid products such as water-soluble concentrates or solutions (1tsp for each pint per 100 gallons of planned final spray mixture) 4. Emulsifiable concentrate and flowable formulations (1tsp for each pint per 100 gallons of planned final spray mixture) 5. Surfactants, compatibility agents, and activators (1tsp for each pint per 100 gallons of final spray mixture) 6. After mixing, let stand for 15 minutes. If the mixture remains in solution or can be remixed readily, the products are considered compatible.

CHEMIGATION

APPLICATIONS THROUGH SPRINKLER AND DRIP IRRIGATION SYSTEMS

Apply this product through microsprinkler, drip, solid set and center pivot sprinkler irrigation systems. Do not apply this product through any other type of irrigation system.

PREPARATION OF INJECTION EQUIPMENT: Remove scale, pesticide residues and other foreign matter from the chemical tank and entire injector system. Flush with clean water.

APPLICATION INSTRUCTIONS: Fill tank with 1/2 to 3/4 of desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE, then the remaining volume of water. Set sprinkler to deliver 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the solution of PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE into the irrigation water line so as to deliver the desired rate per acre. Inject the PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE solution with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. For other questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

NOTE: For Microsprinkler and Drip Irrigation Systems: Avoid further irrigation of the treated area for 24 to 48 hours after treatment with PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE has been completed. For Solid Set and Center Pivot Irrigation Systems: Avoid further irrigation of the PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE treated area until after the foliage has completely dried. This will help to prevent washing the chemical off the crop.

GENERAL PRECAUTIONS FOR APPLICATIONS THROUGH SPRINKLER AND DRIP IRRIGATION SYSTEMS

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. 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. Do not apply when wind speed favors drift beyond the area intended for treatment.

Maintain continuous agitation in mix tank during mixing and application to assure uniformity solution. Do not apply when wind speed favors drift, when system connection or fittings leak, when nozzles do not provide uniform distribution, or when lines containing the product must be dismantled or drained. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from non-uniform distribution of chemigation water.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. A person knowledgeable of the chemigation system and responsible for its operation shall shut down and adjust the system as needed.

Do not connect an irrigation system (including greenhouse system) used for pesticide application to a public water system unless the label-prescribed safety devices for public water supplies are in place.

GENERAL INSTRUCTIONS FOR APPLICATIONS FOOD CROPS

PFS 516 Systemic Fungicide Bactericide is used for control of Downy Mildew, Powdery Mildew, *Erwinia amylovora*, Pythium, Fusarium, Rhizoctonia and Phytophthora disease (such as purple blotch, late blight, blue mold, soft rot, root rot, brown rot, foot rot, crown/collar rot, canker, fruit/foliar rot, fire blight, heart rot, pink rot, pythium leak, red stele, leather rot, etc.) of agronomic crops. (See specific crop groupings for additional diseases.) This product may be applied up to the day of harvest (0 day PHI). Apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE to plants including:

ORNAMENTALS

PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE fungicide is used for control of Pythium, Downy Mildew, Powdery Mildew, Phytophthora and other listed diseases of ORNAMENTALS grown in commercial nurseries and greenhouses, golf courses, parks and commercial landscapes. Apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE to all ornamental and landscape plants including (but not limited to): Aglaonema, Aphelandra, Arborvitae, Ash, Azaleas, Bougainvilles, Boxwood, Bushes, *Cattleya skinneri*, Cedars, Ceanothus, Cotoneaster, Cissus, Diffenbachia, Dogwood, Ferns, Ficus, Flowering Trees, Hibiscus, Hard Wood Trees, Holly, Home Lawns, Juniper, Magnolia Trees, Maple, Pines, Oaks, Palms, Peperomia, Photinia, Pittosporum, Philodendron, Pieris, Pothos, Red woods, Rhododendron, Roses, Schefflera, Sedum, Sempervivum, Shrubs, Spathiphyllum, Sycamore, Taxus media, Zygocactus.

APPLICATION GUIDELINES:

Disease Prevention Program*: Apply lower rate at 7-28-day intervals. Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Disease Control Program: Apply higher rate at 7-14-day intervals until control is reached. Under severe circumstances, as described below, application can be made at intervals of up to every three days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Make applications prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 3-day intervals. Do not apply to plants that are dormant or heat or moisture stressed. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours).

DISEASE	APPLICATION METHOD	RATE/APPLICATION
Anthracnose	Foliar Spray	2.5-5 quarts in a minimum of 100 gallons of water/acre or 5/6 – 1 2/3 fluid ounce/gallon of water.
Fire Blight (<i>Erwinia amylovora</i>)	Soil Drench	30-60 fluid ounce/100 gallon of water or 1/3 – 2/3 fluid ounce per gallon of water
Fusarium	Soil Incorporation	2.5-5 pints/cubic yard of soil mix. Mix 2.5 to 5 pints of PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE with enough water to wet one cubic yard of soil; mix immediately before potting. If conditions are favorable for disease development, make additional applications as a foliar spray or soil drench.
Geranium Wilt (<i>Ralstonia spp.</i>) Phytophthora		
Pythium	Irrigation	Overhead: 2.5-5 quarts/100 gallons of water. Drip: 2.5-5 quarts/100 gallons of water. Apply with normal irrigation schedule.
Rhizoctonia		
Xanthomonas spp (Including <i>campestris</i>)		
	Trunk or Bark Injection	7.5 teaspoons/linear yard of canopy width or 2 inches of trunk diameter at breast height (DBH). Inject directly into tree. Apply according to injection equipment instructions. Adjust rate based on injection equipment suggestions for specific applications. Repeat 2-4 times a year until control is reached.
	Root Dip	5 quarts/100 gallons of water or 1 2/3 fluid ounce/gallon of water. Dip transplants into diluted solution of PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE . Thoroughly wet plant root mass immediately before transplanting. Keep roots submerged for 1 to 2 minutes.
Downy Mildew Powdery Mildew	Foliar Spray	2.5-5 quarts/100 gallons of water or 5/6 – 1 2/3 fluid ounce/ gallon of water

* Check with your local Extension Agent if you are unsure any of the above conditions exist.

BEDDING PLANTS

PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE fungicide is used for control of Downy Mildew, Powdery Mildew, Pythium, Phytophthora and other listed diseases of bedding plants grown in commercial nurseries and greenhouses, golf courses, parks and commercial landscapes. Apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE to the following bedding plants: Ageratum, Algerian Ivy, Alyssum, Anthurium, Artemisia, Aster, Baby's Breath, Begonia, Caladium, Carnation, Chrysanthemum, Coleus, Columbine, Daisy, Delphinium, Easter Lily, English Ivy, Foxglove, Gaillardia, Geranium, Gloxinia, Impatiens, Marigold, Pansy, Petunia, Phlox, Pinks, Poinsettia, Primrose, Prostrate Rosemary, Salvia, Snapdragon, Verbena, Vinca, Zinnia, etc.

APPLICATION GUIDELINES:

Disease Prevention Program*: Apply lower rate at 7-28-day intervals. Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Disease Control Program: Apply higher rate at 7-14-day intervals until control is reached. Under severe circumstances, as described below, application can be made at intervals of up to every three days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Make applications prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 3-day intervals. Do not apply to plants that are dormant or heat or moisture stressed. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours).

DISEASE	APPLICATION METHOD	RATE/APPLICATION
Anthracnose Fire Blight (<i>Erwinia amylovora</i>) Fusarium Phytophthora Pythium Rhizoctonia	Foliar Spray	2.5-5 quarts in a minimum of 100 gallons of water/acre or 5/6 – 1 2/3 fluid ounce/gallon of water. Apply diluted solution to thoroughly wet foliage. Apply at 2-3-week intervals and repeat as needed.
	Root Dip	5 quarts/100 gallons of water or 1 2/3 fluid ounces/gallon of water. Dip transplants into diluted solution of PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE. Thoroughly wet plant root mass immediately before transplanting. Keep roots submerged for 1 to 2 minutes.
	Soil Drench	30-60 fluid ounces/100 gallons of water of 1/3 to 2/3 fluid ounce/gallon of water.
	Irrigation	Overhead: 2.5-5 quarts/100 gallons of water. Drip: 2.5-5 quarts/100 gallons of water. Apply with normal irrigation schedule.
	Foliar Spray	2.5-5 quarts/100 gallons water or 5/6 – 1 2/3 fluid ounce/gallon of water. Apply diluted solution to thoroughly wet foliage. Apply at 2-3-week intervals and repeat as needed. Do not apply more than 6 times per crop cycle or year.
Downy Mildew Powdery Mildew	Foliar Spray	2.5-5 quarts/100 gallons water or 5/6 – 1 2/3 fluid ounce/gallon of water. Apply diluted solution to thoroughly wet foliage. Apply at 2-3-week intervals and repeat as needed. Do not apply more than 6 times per crop cycle or year.

* Check with your local Extension Agent if you are unsure any of the above conditions exist.

CONIFERS AND TREES IN COMMERCIAL NURSERIES, PLANTATIONS AND FORESTS, LANDSCAPES AND PARKS (INCLUDING CHRISTMAS TREES, OAKS and PINES)

APPLICATION GUIDELINES:

Disease Prevention Program*: Apply lower rate at 7-28-day intervals. Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Disease Control Program: Apply higher rate at 7-14-day intervals until control is reached. Under severe circumstances, as described below, application can be made at intervals of up to every three days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE applied in conjunction with good cultural management practices will control Phytophthora root rot of conifers including (but not limited to): Douglas Fir, spruce and pines also other Phytophthora disease of Oaks (Sudden Oak Death) and forest trees (hardwood, softwood, broadleaf). Use the higher rates when disease pressure is severe. Do not apply to trees that are under heat or moisture stress. *Do not graze livestock in treated conifer nurseries and/or plantations. Do not feed forage to livestock from treated nurseries and/or plantations.

DISEASE	APPLICATION METHOD	RATE/APPLICATION
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Phytophthora Sudden Oak Death	Foliar Spray	2.5-5 quarts in a minimum of 100 gallons of water/acre.
	Soil Drench	12-24 fluid ounces/100 gallons of water of 1/3 to 2/3 fluid ounce/gallon of water. Apply 2.5-5 pts. of diluted solution per sq. foot. Adjust volume as needed to thoroughly wet media.
	Trunk or Bark Injection	7.5 teaspoons/linear yard of canopy width or 2 inches of trunk diameter at breast height (DBH). Inject directly into tree. Apply according to injection equipment instructions. Adjust rate based on injection equipment suggestions for specific applications.
	Root Dip	5 quarts/100 gallons of water or 1 2/3 fluid ounce/gallon of water. Apply as a pre-plant dip to the roots for 15-30 minutes. Plant within 24 hours after dipping.

***Do not graze livestock in treated conifer nurseries and/or plantations. Do not feed forage to livestock from treated nurseries and/or plantations.**

TURF

PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE is a systemic Fungicide/Bactericide, which is used for the control of Pythium blight, Summer Complex (Bermuda and others), Dollar Spot, Grey Leaf Spot, Brown Patch, Anthracnose and damping-off diseases to turf grasses and commercial turf production. Use higher rates under severe disease conditions.

APPLICATION GUIDELINES:

Apply amount in minimum of 2 gallons of water per 1,000 sq. ft.

Disease Prevention Program*: Apply lower rate at 7-28-day intervals. Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Disease Control Program: Apply higher rate at 7-14-day intervals until control is reached. Under severe circumstances, as described below, application can be made at intervals of up to every three days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

DISEASE	APPLICATION METHOD	RATE/APPLICATION
Acidovorax Algae Alternaria Anthracnose (<i>Colletotrichum graminicola</i>) Bacterial Wilt Cercospora Helminthosporium Gray Snow Mold Phytophthora Pink Snow Mold Pythium (Yellow Turf) Rhizoctonia Sclerotinia Xanthomonas Fusarium	Foliar Spray	7.5-15 fluid ounces/1000 square feet. (Fairways: 5-15 fluid ounces/1000 square feet.) Or 7.5-15 quarts/100 gallons of water/acre.
	Irrigation	Overhead: 5-10 quarts/acre in at least 100 gallons of water.

***Do not graze animals on treated turf. Do not feed clippings from treated turf to livestock and poultry.**

AGRICULTURAL CROPS:

**GENERAL INSTRUCTIONS FOR APPLICATIONS
FOOD CROPS
(ALL STATES EXCEPT CALIFORNIA)**

Brassica Crop Grouping: Broccoli (all types), Brussels sprouts, Cabbage (all types), Cauliflower, Cavalo broccoli, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach and Rape greens.

APPLICATION GUIDELINES:

Disease Prevention Program*: Apply lower rate at 7-28-day intervals. Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Disease Control Program: Apply higher rate at 7-14-day intervals until control is reached. Under severe circumstances, as described below, application can be made at intervals of up to every three days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Make applications prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 3-day intervals. Do not apply to plants that are dormant or heat or moisture stressed. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours).

DISEASE	APPLICATION METHOD	RATE/APPLICATION
Cercospora (Cercospora arachidicola)	Foliar Spray Application	2.5-8.0 quarts in a minimum of 20 gallons of water/acre. Not to exceed a 5% concentration.
Cercosporidium (Cercosporidium personatum)	Aerial Application Equipment	2.5-8 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.
Clavibacter (michiganensis subsp. nebraskensis)	Chemigation	5-10 quarts in at least 400 gallons of water/acre.
Fusarium	Planter Bed, Root Dip or Transplant Drench	2.5-5 ounces /1000 ft. of row.
Phytophthora		2.5-5 quarts/100 gallons of water, 5/6 – 1 2/3 fluid ounce/gallon of water.
Pseudomonas spp. (including <i>syringae</i>)		
Pythium		Can be applied prior to, during or after transplanting, in seed furrow, knife injected near seed, or over covered seed bed.
Ralstonia solanacearum		
Rhizoctonia		
Sclerotinia		
Xanthomonas spp. (including <i>campestris</i>)	Soil Directed or Injected Application	5-10 quarts in min 20 gallons/acre. Lightly irrigate after application.
Alternaria	Foliar Spray Application	2.5-10 quarts in a minimum of 40 gallons of water/acre. Not to exceed a 5% concentration.
Anthracnose		

Downy Mildew Powdery Mildew Rust	Aerial Application Equipment	2.5-10 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.
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*** Check with your local Extension Agent if you are unsure any of the above conditions exist.**

Cereal Grains, Forage and Fiber Crop Grouping: Alfalfa, Barley, Buckwheat, Canola, Clover (all types), Corn (all types), Cotton, Hay, Kudzu, Lespedeza, Lupin, Millet, Oats, Popcorn, Rice, Rye, Safflower, Sainfoin, Sorghum, Sunflower, Teosinte, Trefoil, Triticale, Vetch, Wheat and Wild rice.

APPLICATION GUIDELINES:

Disease Prevention Program*: Apply lower rate at 7-28-day intervals. Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Disease Control Program: Apply higher rate at 7-14-day intervals until control is reached. Under severe circumstances, as described below, application can be made at intervals of up to every three days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Make applications prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 3-day intervals. Do not apply to plants that are dormant or heat or moisture stressed. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours).

PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE may be applied to Roundup Ready crops to lessen the effects of associated diseases with yield drag and crop setback. Applications can be made at planting, with fertilizer side dressing, tank mixed with Roundup applications, or as a separate foliar application. (Roundup Ready is a trademark of Monsanto Technology LLC.)

DISEASE	APPLICATION METHOD	RATE/APPLICATION
Cercospora (Cercospora arachidicola)	Foliar Spray Application	3-8 quarts in a minimum of 10 gallons of water/acre. Not to exceed a 5% concentration.
Cercosporidium (Cercosporidium personatum)	Aerial Application Equipment	3-8 quarts in a minimum of 3 gallons of water/acre. Not to exceed a 30% concentration.
Clavibacter (michiganensis subsp. Nebraskensis)	Chemigation	5-10 quarts in at least 400 gallons of water/acre.
Fusarium	Planter Bed, Root Dip or Transplant Drench	2.5-5 ounces /1000 ft. of row.
Phytophthora		2.5-5 quarts/100 gallons of water, 5/6 – 1 2/3 fluid ounce/gallon of water.
Pseudomonas spp. (including syringae)	Soil Directed or Injected Application	Can be applied prior to, during or after transplanting, in seed furrow, knife injected near seed, or over covered seed bed.
Pythium		5-10 quarts in min 20 gallons/acre. Lightly irrigate after application.
Ralstonia solanacearum		
Rhizoctonia		
Sclerotinia		
Xanthomonas spp. (including campestris)		
Alternaria	Foliar Spray Application	3-8 quarts in a minimum of 10 gallons of water/acre. Not to exceed a 5% concentration.
Anthracnose	Aerial Application Equipment	3-8 quarts in a minimum of 3 gallons of water/acre. Not to exceed a 30% concentration.
Downy Mildew		
Powdery Mildew		
Rust		

* Check with your local Extension Agent if you are unsure any of the above conditions exist.

Citrus crops (including subtypes, hybrids and citrus-like crops), Avocado and Other Tropical and Subtropical Fruits (Bearing and Non-Bearing).

APPLICATION GUIDELINES:

Disease Prevention Program*: Apply lower rate at 7-28 day intervals. Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 7 days.

Disease Control Program: Apply higher rate at 7-14 day intervals until control is reached. Under severe circumstances, application can be made at intervals of up to every seven days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 7 days.

Make applications prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 7 day intervals. Do not apply to plants that are dormant or heat or moisture stressed. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours). Use caution when mixing this product with spray oil and/or copper.

DISEASE	APPLICATION METHOD	RATE/APPLICATION
Botryosphaeria dothidea Cercospora (Cercospora arachidicola) Cercosporidium (Cercoporidium personatum) Clavibacter (michiganensis subsp. Nebraskensis) Fusarium Phytophthora (soil borne and aerial phases, including brown rot) Pseudomonas spp. (including syringae) Pythium Ralstonia solanacearum Rhizoctonia Sclerotinia Xanthomonas spp. (including campestris) Huanglongbing (HLB, Citrus Greening Disease)A	Foliar Spray Application	1-2 gallons in a minimum of 50 gallons of water/acre.
	Aerial Application Equipment	1-2 gallons in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration
	Chemigation ^A	2-4 gallons in at least 400 gallons of water/acre.
	Transplant Drench/Dip	1 gallon/100 gallons of water, 2/3 fluid ounces/gallon of water. Apply as pre-plant dip to the roots for 15-30 minutes. Plant within 24 hours after dipping.
	Trunk or Bark Injection	1.5 fluid ounces/linear yard of canopy width or 2 inches of trunk diameter at breast height (DBH). Inject directly into the tree. Apply according to injection equipment instructions. Adjust rate based on injection equipment suggestions for specific applications. Repeat 2-4 times a year until control is reached.
	Soil/Root Drench ^A	2.5-5 gallons/100 gallons of water or 3.125-5 fluid ounces per gallon.

		Apply 5-10 gallons of diluted solution per tree. Adjust volume as needed to thoroughly drench area around trunk. Apply at 3-4 week intervals and repeat as needed.
	Soil Directed Application ^A	2.5-5 gallons in min 20 gallons of water/acre.
Alternaria Anthracnose Downy Mildew Powdery Mildew Rust Post Bloom Fruit Drop (PFD) Huanglongbing (HLB) Citrus Greening Disease) ***	Foliar Spray Application	1.5-2.5 gallons in a minimum of 50 gallons of water/acre.
	Aerial Application Equipment	1.5-2.5 gallons in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.

* Check with your local Extension Agent if you are unsure these conditions exist.

A non-ionic surfactant may also be used. ^A For use on indicated application methods only.

Cucurbit Crop Grouping: Cantaloupe, Chayote, Chinese waxgourd, Citron melon, Cucumber (all types), Gherkin, Gourd, Honeydew, Muskmelon, Pumpkin, Squash (summer and winter) and Watermelon.

APPLICATION GUIDELINES:

Disease Prevention Program*: Apply lower rate at 7-28-day intervals. Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Disease Control Program: Apply higher rate at 7-14-day intervals until control is reached. Under severe circumstances, as described below, application can be made at intervals of up to every three days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Make applications prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 3-day intervals. Do not apply to plants that are dormant or heat or moisture stressed. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours).

DISEASE	APPLICATION METHOD	RATE/APPLICATION
Cercospora (Cercospora arachidicola)	Foliar Spray Application	2.5-8 quarts in a minimum of 20 gallons of water/acre. Not to exceed a 5% concentration.
Cercosporidium (Cercosporidium personatum)	Aerial Application Equipment	2.5-8 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.
Clavibacter (michiganensis subsp. Nebraskensis)	Chemigation	5-10 quarts in at least 400 gallons of water/acre.
Fusarium Phytophthora Pseudomonas spp. (including <i>syringae</i>) Pythium Ralstonia solanacearum Rhizoctonia Sclerotinia	Planter Bed, Root Dip or Transplant Drench	2.5-5 ounces /1000 ft. of row. 2.5-5 quarts/100 gallons of water, 5/6 – 1 2/3 fluid ounce/gallon of water. Can be applied prior to, during or after transplanting, in seed furrow, knife injected near seed, or over covered seed bed.
Xanthomonas spp. (including <i>campestris</i>)	Soil Directed or Injected Application	5-10 quarts in min 20 gallons/acre. Lightly irrigate after application.
Alternaria Anthracnose	Foliar Spray Application	2.5-10 quarts in a minimum of 40 gallons of water/acre. Not to exceed a 5% concentration.
Downy Mildew Powdery Mildew Rust	Aerial Application Equipment	2.5-10 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.

* Check with your local Extension Agent if you are unsure any of the above conditions exist.

Grapes and Cane Berry Crop Grouping: Grapes (all types), Blackberry (including bingberry, black satin berry, boysenberry, Cherokee blackberry, Chesterberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, Himalayaberry, hullberry, Lavacaberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, nectarberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, youngberry, and varieties and/or hybrids of these), Blueberry, Cane Berries, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry and Raspberry (black and red).

APPLICATION GUIDELINES:

Disease Prevention Program*: Apply lower rate at 7-28-day intervals. Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Disease Control Program: Apply higher rate at 7-14-day intervals until control is reached. Under severe circumstances, as described below, application can be made at intervals of up to every three days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Make applications prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 3-day intervals. Do not apply to plants that are dormant or heat or moisture stressed. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours).

DISEASE	APPLICATION METHOD	RATE/APPLICATION
Botryosphaeria dothidea Cercospora (Cercospora arachidicola) Cercosporidium (Cercosporidium personatum) Clavibacter (michiganensis subsp. Nebraskensis) Fusarium Phytophthora Pseudomonas spp. (including <i>syringae</i>) Pythium Ralstonia solanacearum Rhizoctonia Sclerotinia Xanthomonas spp. (including <i>campestris</i>)	Foliar Spray Application	2.5-8 quarts in a minimum of 20 gallons of water/acre.
	Aerial Application Equipment	2.5-8 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.
	Chemigation	5-10 quarts in at least 400 gallons of water/acre.
	Planter Bed, Root Dip or Transplant Drench	2.5-5 ounces/1000 ft. of row. 2.5-5 quarts/100 gallons of water, 5/6 – 1 2/3 fluid ounce/gallon of water. Apply as pre-planted dip to the roots for 15-30 minutes. Plant within 24 hours.
	Soil Directed or Injected Application	5-20 quarts in min 20 gallons/acre.
Alternaria Anthracnose Downy Mildew Powdery Mildew Rust	Foliar Spray Application	2.5-10 quarts in a minimum of 20 gallons of water/acre.
	Aerial Application Equipment	2.5-10 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.

* Check with your local Extension Agent if you are unsure any of the above conditions exist.

Herbs and Spices Crop Grouping: Allspice, Angelica, Anise, Annatto, Balm, Basil, Borage, Bumet, Camomile, Caper buds, Caraway, Cardamom, Cassia bark and buds, Catnip, Celery seed, Chervil, Chive, Cinnamon, Clary, Clove, Cocoa, Coriander, Costmary, Cilantro, Cumin, Curry, Dill, Fennel, Fenugreek (Methi), Grains of paradise, Hops, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage, Mace, Marigold, Marjoram, Methi, Mint, Mustard, Nasturtium, Nutmeg, Parsley (all types), Pennyroyal, Pepper, Poppy seed, Rosemary, Rue, Saffron, Sage, Savory, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff and Wormwood.

APPLICATION GUIDELINES:

Disease Prevention Program*: Apply lower rate at 7-28-day intervals. Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Disease Control Program: Apply higher rate at 7-14-day intervals until control is reached. Under severe circumstances, as described below, application can be made at intervals of up to every three days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Make applications prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 3-day intervals. Do not apply to plants that are dormant or heat or moisture stressed. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours).

DISEASE	APPLICATION METHOD	RATE/APPLICATION
Cercospora (Cercospora arachidicola)	Foliar Spray Application	2.5-8 quarts in a minimum of 20 gallons of water/acre. Not to exceed a 5% concentration.
Cercosporidium (Cercosporidium personatum)	Aerial Application Equipment	2.5-8 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.
Clavibacter (michiganensis subsp. Nebraskaensis)	Chemigation	5-10 quarts in at least 400 gallons of water/acre.
Fusarium Phytophthora Pseudomonas spp. (including syringae) Pythium Ralstonia solanacearum Rhizoctonia Sclerotinia	Planter Bed, Root Dip or Transplant Drench	2.5-5 ounces /1000 ft. of row. 2.5-5 quarts/100 gallons of water, 5/6 – 1 2/3 fluid ounce/gallon of water. Can be applied prior to, during or after transplanting, in seed furrow, knife injected near seed, or over covered seed bed.
Xanthomonas spp. (including campestris)	Soil Directed or Injected Application	5-10 quarts in min 20 gallons of water/acre. Lightly irrigate after application.
Alternaria Anthracnose	Foliar Spray Application	2.5-10 quarts in a minimum of 50 gallons of water/acre. Not to exceed a 5% concentration.
Downy Mildew Powdery Mildew Rust	Aerial Application Equipment	2.5-10 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.

* Check with your local Extension Agent if you are unsure any of the above conditions exist.

Legume Vegetables Crop Grouping: Bean (all types), broad bean (fava bean), Chickpea (garbanzo bean), Guar, Jackbean, Lablab bean, Lentil, Pea (all types), Peanut, Pigeon pea, Soybean and Sword bean.

APPLICATION GUIDELINES:

Disease Prevention Program*: Apply lower rate at 7-28-day intervals. Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Disease Control Program: Apply higher rate at 7-14-day intervals until control is reached. Under severe circumstances, as described below, application can be made at intervals of up to every three days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Make applications prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 3-day intervals. Do not apply to plants that are dormant or heat or moisture stressed. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours).

PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE may be applied to Roundup Ready crops to lessen the effects of associated diseases with yield drag and crop setback. Applications can be made at planting, with fertilizer side dressing, tank mixed with Roundup applications, or as a separate foliar application. (Roundup Ready is a trademark of Monsanto Technology LLC.)

DISEASE	APPLICATION METHOD	RATE/APPLICATION
Cercospora (Cercospora arachidicola)	Foliar Spray Application	3-8 quarts in a minimum of 10 gallons of water/acre. Not to exceed a 5% concentration.
Cercosporidium (Cercosporidium personatum)	Aerial Application Equipment	3-8 quarts in a minimum of 3 gallons of water/acre. Not to exceed a 30% concentration.
Clavibacter (michiganensis subsp. Nebraskensis)	Chemigation	5-10 quarts in at least 400 gallons of water/acre.
Fusarium (Sudden Death)	Planter Bed, Root Dip or Transplant Drench	2.5-5 ounces /1000 ft. of row.
Phytophthora		2.5-5 quarts/100 gallons of water, 5/6 – 1 2/3 fluid ounce/gallon of water.
Pseudomonas spp. (including syringae)		Can be applied prior to, during or after transplanting, in seed furrow, knife injected near seed, or over covered seed bed.
Pythium		
Ralstonia solanacearum		
Rhizoctonia	Soil Directed or Injected Application	5-10 quarts in min 20 gallons of water/acre. Lightly irrigate after application.
Sclerotinia		
Xanthomonas spp. (including campestris)		
Early and Late Leaf Spot on Peanut		
Alternaria	Foliar Spray Application	3-8 quarts in a minimum of 10 gallons of water/acre. Not to exceed a 5% concentration.
Anthracnose		
Downy Mildew	Aerial Application Equipment	3-8 quarts in a minimum of 3 gallons of water/acre. Not to exceed a 30% concentration.
Powdery Mildew		
Rust		

* Check with your local Extension Agent if you are unsure any of the above conditions exist.

Pome Fruits Crop Grouping (Bearing and Non-Bearing) including Papaya: Apple, Crabapple, Loquat, Mayhaw, Papaya, Pear, Pomegranate and Quince.

APPLICATION GUIDELINES:

Disease Prevention Program*: Apply lower rate at 7-28-day intervals. Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Disease Control Program: Apply higher rate at 7-14-day intervals until control is reached. Under severe circumstances, as described below, application can be made at intervals of up to every three days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Make applications prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 3-day intervals. Do not apply to plants that are dormant or heat or moisture stressed. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours).

DISEASE	APPLICATION METHOD	RATE/APPLICATION	
Cercospora (Cercospora arachidicola) Cercosporidium (Cercosporidium personatum) Clavibacter (michiganensis subsp. Nebraskensis) Fusarium Phytophthora Pseudomonas spp. (including <i>syringae</i>) Pythium Ralstonia solanacearum Rhizoctonia Sclerotinia Xanthomonas spp. (including <i>campestris</i>) Fire Blight (Erwinia amylovora)	Foliar Spray Application	2.5-8 quarts in a minimum of 40 gallons of water/acre.	
	Aerial Application Equipment	2.5-8 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.	
	Chemigation	5-20 quarts in at least 400 gallons of water/acre.	
	Transplant Drench/Dip	5 quarts/100 gallons of water. 1 2/3 fluid ounces/gallon of water. Apply as pre-plant dip to the roots for 15-30 minutes. Plant within 24 hours.	
	Trunk or Bark Injection	7.5 teaspoons/linear yard of canopy width or 2 inches of trunk diameter at breast height (DBH). Inject directly into the tree. Apply according to injection equipment instructions. Adjust rate on injection equipment suggestions for specific applications. Repeat 2-4 times a year until control is reached.	
	Soil/Root Drench	2.5-5 gallons/100 gallons of water or 3.0-6.25 fluid ounces per gallon. Apply 5-10 gallons of diluted solution per tree. Adjust volume as needed to thoroughly drench area around trunk. Apply at 3-4-week intervals and repeat as needed.	
	Soil Directed or Injected Application	5-20 quarts in min 20 gallons of water/acre.	
	Alternaria	Foliar Spray Application	2.5-10 quarts in a minimum of 40 gallons of water/acre.
	Anthracnose Downy Mildew Powdery Mildew Rust	Aerial Application Equipment	2.5-10 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.

* Check with your local Extension Agent if you are unsure any of the above conditions exist.

Stone Fruits Crop Grouping including Olives: Apricot, Cherry, Nectarine, Olive, Peach, Plum, Pluot and Prune.

APPLICATION GUIDELINES:

Disease Prevention Program*: Apply lower rate at 7-28-day intervals. Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Disease Control Program: Apply higher rate at 7-14-day intervals until control is reached. Under severe circumstances, as described below, application can be made at intervals of up to every three days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Make applications prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 3-day intervals. Do not apply to plants that are dormant or heat or moisture stressed. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours).

DISEASE	APPLICATION METHOD	RATE/APPLICATION
Armillaria Root Rot (Oak Root Fungus) Botryosphaeria dothidea Erwinia Eutypa lata Cercospora (Cercospora arachidicola) Cercosporidium (Cercosporidium personatum) Clavibacter (michiganensis subsp. Nebraskensis) Fusarium Phytophthora Root and Crown Rot Pseudomonas spp. (including syringae) Pythium Ralstonia solanacearum Rhizoctonia Sclerotinia Xanthomonas spp. (including campestris) Fire Blight (Erwinia amylovora) Shot Hole Disease (Wilsonomyces carpophilus)	Foliar Spray Application	2.5-8 quarts in a minimum of 40 gallons of water/acre.
	Aerial Application Equipment	2.5-8 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.
	Chemigation	5-20 quarts in at least 400 gallons of water/acre.
	Transplant Drench/Dip	5 quarts/100 gallons of water. 1 2/3 fluid ounces/gallon of water. Apply as pre-plant dip to the roots for 15-30 minutes. Plant within 24 hours.
	Trunk or Bark Injection	7.5 teaspoons/linear yard of canopy width or 2 inches of trunk diameter at breast height (DBH). Inject directly into the tree. Apply according to injection equipment instructions. Adjust rate on injection equipment suggestions for specific applications. Repeat 2-4 times a year until control is reached.
	Soil/Root Drench	2.5-5 gallons/100 gallons of water or 3.0-6.25 fluid ounces per gallon. Apply 5-10 gallons of diluted solution per tree. Adjust volume as needed to thoroughly drench area around trunk. Apply at 3-4 week intervals and repeat as needed.
	Soil Directed or Injected Application	5-20 quarts in min 20 gallons of water/acre.
	Foliar Spray Application	2.5-10 quarts in a minimum of 40 gallons of water/acre.
	Aerial Application Equipment	2.5-10 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.
	Alternaria Anthracnose Downy Mildew Powdery Mildew Rust	

* Check with your local Extension Agent if you are unsure any of the above conditions exist.

Tree Nuts Crop Grouping: Almond, Areca (Betelnut Palm), Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert, Hickory nut, Kiwi, Macadamia nut, Pecan, Pistachio and Walnut.

APPLICATION GUIDELINES:

Disease Prevention Program*: Apply lower rate at 7-28-day intervals. Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Disease Control Program: Apply higher rate at 7-14-day intervals until control is reached. Under severe circumstances, as described below, application can be made at intervals of up to every three days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Make applications prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 3-day intervals. Do not apply to plants that are dormant or heat or moisture stressed. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours).

DISEASE	APPLICATION METHOD	RATE/APPLICATION
Armillaria Root Rot (Oak Root Fungus)	Foliar Spray Application	2.5-8 quarts in a minimum of 40 gallons of water/acre.
	Aerial Application Equipment	2.5-8 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.
Botryosphaeria dothidea		
Eutypa lata	Chemigation	5-20 quarts in at least 400 gallons of water/acre.
Cercospora (Cercospora arachidicola)	Transplant Drench/Dip	5 quarts/100 gallons of water. 1 2/3 fluid ounces/gallon of water.
Cercosporidium (Cercosporidium personatum)		Apply as pre-plant dip to the roots for 15-30 minutes. Plant within 24 hours.
Cladosporium caryigenum	Trunk or Bark Injection	7.5 teaspoons/linear yard of canopy width or 2 inches of trunk diameter at breast height (DBH). Inject directly into the tree.
Clavibacter (michiganensis subsp. Nebraskensis)		
Fusarium		
Phytophthora Root and Crown Rot		Apply according to injection equipment instructions. Adjust rate on injection equipment suggestions for specific applications. Repeat 2-4 times a year until control is reached.
Pseudomonas spp. (including syringae)	Soil/Root Drench	2.5-5 gallons/100 gallons of water or 3.0-6.25 fluid ounces per gallon.
Pythium		Apply 5-10 gallons of diluted solution per tree. Adjust volume as needed to thoroughly drench area around trunk. Apply at 3-4-week intervals and repeat as needed.
Ralstonia solanacearum		
Rhizoctonia		
Sclerotinia	Soil Directed or Injected Application	5-20 quarts in min 20 gallons of water/acre.
Xanthomonas spp. (including campestris)		
Alternaria	Foliar Spray Application	2.5-10 quarts in a minimum of 40 gallons of water/acre.
Anthracnose	Aerial Application Equipment	2.5-10 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.
Downy Mildew		
Powdery Mildew		
Rust		
Scab		

* Check with your local Extension Agent if you are unsure any of the above conditions exist.

Vegetables Crop Grouping Including Miscellaneous Food Crops: (Leafy, Root and Tuber) Amaranth (Chinese Spinach, Tampala, etc.) Arracacha, Arugula, Arrowroot, Artichoke (all types), Asparagus, Beet (all types), Burdock, Canna, Cardoon, Carrot, Cassava, Celery, Celery, Chayote, Chervil (Turnip-rooted), Chicory, Chilies, Chrysanthemum (edible), Chufa, Cinchona, Coconut, Coffee, Corn (all types), Cress (all types), Dandelion, Dasheen, Dock, Eggplant, Endive, Fennel, Garlic, Ginger, Ginseng, Horseradish, Leren, Lettuce (all types), Okra, Onion (all types), Orach, Parsley, Parsnip, Peppers (all types), Pineapple, Purslane, Potato (all types), Radicchio, Radish (all types), Rhubarb, Rutabaga, Salisify (all types), Skirret, Spinach (all types), Strawberry, Sugarbeet, Sugarcane, Sweet Potato, Swiss Chard, Tanier, Tobacco, Tomato, Turmeric, Turnip, Yam (all types).

APPLICATION GUIDELINES:

Disease Prevention Program*: Apply lower rate at 7-28-day intervals. Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Disease Control Program: Apply higher rate at 7-14-day intervals until control is reached. Under severe circumstances, as described below, application can be made at intervals of up to every three days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply PFS 516 SYSTEMIC FUNGICIDE BACTERICIDE at intervals less than 3 days.

Make applications prior to disease development in conjunction with good cultural management practices. Use the higher rate when disease pressure is severe. Use rates and frequency are designed to prevent plant injury. If more frequent applications are necessary for disease control, consult a crop expert and follow their recommendations. Do not exceed the highest rate per application. Do not apply at less than 3-day intervals. Do not apply to plants that are dormant or heat or moisture stressed. Allow foliage to completely dry after application. Do not apply when conditions favor wet tissue for prolonged periods (>4 hours).

DISEASE	APPLICATION METHOD	RATE/APPLICATION
Cercospora (Cercospora arachidicola)	Foliar Spray Application	2.5-10 quarts in a minimum of 20 gallons of water/acre. Not to exceed a 5% concentration.
Cercosporidium (Cercosporidium personatum)	Aerial Application Equipment	2.5-10 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.
Cladosporium caryigenum	Chemigation	5-10 quarts in at least 400 gallons of water/acre.
Clavibacter (michiganensis subsp. Nebraskensis)	Planter Bed, Root Dip or Transplant Drench	2.5-5 ounces /1000 ft. of row.
Fusarium		2.5-5 quarts/100 gallons of water, 5/6 – 1 2/3 fluid ounce/gallon of water.
Fusicladium effusum		
Phytophthora		
Pseudomonas spp. (including syringae)		Can be applied prior to, during or after transplanting, in seed furrow, knife injected near seed, or over covered seed bed.
Pythium	Soil Directed or Injected Application	5-10 quarts in min 20 gallons of water/acre. Lightly irrigate after application.
Ralstonia solanacearum		
Rhizoctonia		
Sclerotinia		
Xanthomonas spp. (including campestris)		
Late Blight (Phytophthora infestans)	Foliar Spray Application	8-12.5 quarts in a minimum of 40 gallons of water/acre. Not to exceed a 5% concentration.
Pink Rot (Phytophthora erythroseptica)	Aerial Application Equipment	8-12.5 quarts in a minimum of 12.5 gallons of water/acre. Not to exceed a 10% concentration.
Alternaria	Foliar Spray Application	2.5-10 quarts in a minimum of 40 gallons of water/acre. Not to exceed a 5% concentration.
Anthraxnose		
Downy Mildew	Aerial Application Equipment	2.5-10 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 30% concentration.
Powdery Mildew		
Rust		

* Check with your local Extension Agent if you are unsure any of the above conditions exist.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Store in a cool, dry place.

PESTICIDE STORAGE: Keep containers tightly closed when not in use.

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

CONTAINER DISPOSAL: Do not reuse empty container. Triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, keep out of smoke.

NONREFILLABLE CONTAINERS: Do not reuse or refill this container. Clean container promptly after emptying.

NONREFILLABLE CONTAINER EQUAL TO OR LESS THAN 5 GALLONS: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 120 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

NONREFILLABLE CONTAINER GREATER THAN 5 GALLONS: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ 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 back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Warranty and Disclaimer

NOTICE TO BUYER

To the extent permitted by law, all conditions and warranties, and statutory or other rights of action which buyer or any other user may have against Plant Food Systems Inc. or seller are hereby excluded. Plant Food Systems Inc. hereby gives notice to buyer and other users that it will not accept responsibility for any indirect or consequential loss arising from reliance on product information provided by Plant Food Systems Inc. or on its behalf unless it is established that such information or advice was provided negligently and that the product has been used strictly as directed. Plant Food Systems Inc.'s liability shall in all circumstances be limited to replacement of the product or a refund of the purchase price thereof.

OPTIONAL GRAPHICS
(may appear on any sublabel)

Fruit & Vegetable Graphic (may appear on Front Panel or elsewhere of sublabels bearing fruit and vegetable crops):



Turf & Ornamental Graphic (may appear on Front Panel or elsewhere of sublabels bearing turf and ornamental crops):



Quality Warranty Graphic (may appear on Front Panel or elsewhere of sublabels):



Text of graphic: "Quality Warranty Guarantee"

Text accompanying graphic: "Plant Food Systems' products use only quality materials, with no byproducts or downstream contaminants for consistent performance & results."

Citrus (May appear on front panel or elsewhere on label.)



Ag Container Recycling Council (ACRC) Graphic (may appear on Front Panel or elsewhere of commercial (non-consumer) sublabels):



Text of graphic: "Ag Container Recycling Council, Sustained Product Stewardship"

NOTE: Colors utilized in above graphics may vary on the actual final printed labels

BULLET HLB SYSTEMIC FUNGICIDE BACTERICIDE
ACTIVE INGREDIENTS:
 Dipotassium phosphonate 21.00%
 Dipotassium phosphate 24.50%
OTHER INGREDIENTS: 54.50%
TOTAL..... 100.00%

CAUTION KEEP OUT OF REACH OF CHILDREN

Follow the directions for use on the pesticide label when applying this product. EPA Reg. No. 73806-3

MANUFACTURED BY:
 PLANT FOOD SYSTEMS, INC
 2827 Union St, P.O. Box 775
 Zellwood, FL 32798
 800-343-7775

EPA Est. No. 73806-FL-001

NET CONTENTS: