

# KPHITE<sup>®</sup> RX

SYSTEMIC BACTERICIDE



## Product Information:

A systemic bactericide for the control of Huanglongbing (HLB, Citrus Greening Disease) on Citrus.

## Active Ingredients:

Mono- and dipotassium salts of Phosphorous Acid*	56%
<b>OTHER INGREDIENTS:</b>	44%
<b>TOTAL:</b>	100%

\*Contains 7.03 lbs./gallon of active ingredients, mono- and dipotassium salts of Phosphorous Acid. Equivalent to 4.41 lbs. Phosphorous Acid/gallon.

\* **KPHITE<sup>®</sup> RX's** unique manufacturing process and molecule are protected by the following patents:

**Reactor:** 4724132

**Molecule:** 7887616, 8221516, 8088191

## MANUFACTURED BY:

**Plant Food Systems, Inc.**  
2827 Union St. P.O. Box 775  
Zellwood, FL 32798  
800.343.7775

EPA Reg. No. 73806-1  
EPA Est. No. 73806-FL-001

## NET CONTENTS:

- 2-1/2 Gallons
- 5 Gallons
- 30 Gallons
- 55 Gallons

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

[PlantFoodSystems.com](http://PlantFoodSystems.com)

See inside booklet for First Aid and Additional Precautionary Statements.



# **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 before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse.**

### **FIRST AID STATEMENTS**

- If in eyes
- Hold eye open and rinse slowly and gently with water for 15-20 minutes
  - Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
  - Call a poison control center or doctor for treatment advice.

### **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.

### **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**

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.

# GENERAL APPLICATION INSTRUCTIONS

Apply KPHITE RX by various application methods, including foliar sprays, trunk injection, soil drench, soil incorporation, and bare root dip. For foliar sprays, apply KPHITE RX 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 KPHITE RX 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 KPHITE RX 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 KPHITE RX with certain surfactants, foliar fertilizers or other pesticides may cause crop injury. KPHITE RX is a slightly acidic buffer solution. Avoid mixing KPHITE RX with strongly acidic or alkaline materials. Do not tank mix 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 KPHITE RX before use. Do not use acidifying type compatibility agents.

To determine the compatibility of KPHITE RX with other products, use a jar compatibility test. Add the correct proportions of each product and the appropriate quantity of water to clean container, thoroughly mix, then let stand for 3-5 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 KPHITE RX, 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 KPHITE RX into the irrigation water line so as to deliver the desired rate per acre. Inject the KPHITE RX 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 KPHITE RX has been completed. For Solid Set and Center Pivot Irrigation Systems: Avoid further irrigation of the KPHITE RX 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

KPHITE RX 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 KPHITE RX to plants including:

# 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 KPHITE RX at intervals less than 3 days. KPHITE RX is the key product of the "3-6-9™" Program developed for the control of soil borne and other diseases in citrus crops.

**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 three days. Consult with Farm Advisor, Licensed Agricultural Pest Control Advisor or Certified Crop Advisor to determine disease severity.

Do not apply KPHITE RX 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 (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) <sup>A</sup>	Foliar Spray Application	1-3 quarts in a minimum of 50 gallons of water/acre.
	Aerial Application Equipment	1-3 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 10% concentration
	Chemigation <sup>A</sup>	4-8 quarts in at least 400 gallons of water/acre.
	Transplant Drench/Dip	2 quarts/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	3 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 based on injection equipment suggestions for specific applications. Repeat 2-4 times a year until control is reached.
	Soil/Root Drench <sup>A</sup>	1-2 gallons/100 gallons of water or 1.25-2.5 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 <sup>A</sup>	4-8 quarts 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	1-4 quarts in a minimum of 100 gallons of water/acre.
	Aerial Application Equipment	1-4 quarts in a minimum of 5 gallons of water/acre. Not to exceed a 10% concentration.

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

\*\*\* Use a minimum of 2 quarts per acre. The addition of a fertilizer, such as RENEW® RX or PFS KEYPON® RX may improve control. A non-ionic surfactant may also be used. <sup>A</sup> For use on indicated application methods only.

## 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.

