



**U.S. ENVIRONMENTAL PROTECTION AGENCY**

Office of Chemical Safety and Pollution Prevention  
Office of Pesticide Programs  
Registration Division (7504P)  
1200 Pennsylvania Ave., N.W.  
Washington, DC 20460

EPA Reg. Number:

**55272-17**

Date of Issuance:

SEP 1 2010

Term of Issuance:

Unconditional

Name of Pesticide Product:

**Nu-Cop® 50WP**

**NOTICE OF PESTICIDE:**

Registration  
 Reregistration  
(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

**Ingenieria Industrial S.A. de C. V.**  
**Av. Coyoacan 1878-403**  
**Col. Del Valle**  
**03310 Mexico, D.F.**

Mailed to:

Crystal Layton  
Research Assistant  
Landis International, Inc.  
P.O. Box 1526  
Valdosta, GA 31603-1526

**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 reregistered 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.

Based on your response to the copper hydroxide Reregistration Eligibility Document(s), EPA has reregistered the product listed above provided that the following changes are made to the label:

1. On page 10 in the second column of the entry for ALMONDS (early bloom application) change "16" to "3"
2. On page 18 in the first column of the entry for MOSSES, ALGA, and LICHEN change "ALGA" to "ALGAE"

Signature of Approving Official:

Date:

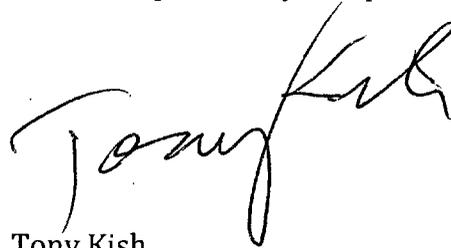
SEP 1 2010

Tony Kish, Product Manager (22)  
Fungicide Branch/Registration Division/OPP/OCSP (7504P)

This action is taken under the authority of section 4(g)(2)(c) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. Reregistration under this section does not eliminate the need for continual reassessment of pesticides. EPA may require submission of data at any time to maintain the registration of your product. Generic data requirements that have been identified in the RED as confirmatory data for the active ingredient contained in the subject product will continue to be tracked and assessed in the Agency's continual reassessment of pesticides.

A copy of your label stamped "Accepted with Comments" is enclosed for your records. Please submit one copy of the revised final printed label for the record before the product is released for shipment. Products shipped after 12 months from the date of this Notice or the next printing of your label, which ever occurs first, must bear the new revised label.

The basic Confidential Statement of Formula (CSF) dated 10/10/2008 submitted in connection with reregistration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable. This CSF supersedes all CSFs previously accepted for this product.



Tony Kish  
Product Manager (22)  
Fungicide Branch  
Registration Division (7504P)

Enclosure:

- Label stamped "Accepted with Comments"
- PRB Label Review dated 4/8/2009
- Acute Toxicity Review DP361706 dated 2/27/2009 (skin sensitization study)
- Acute Toxicity Review DP358328 dated 11/17/2008
- Product Chemistry Review DP372960 dated 1/13/2009 (storage stability/corrosion characteristics)
- Product Chemistry Review DP358527 dated 1/15/2008

# Nu-Cop ® 50WP

AGRICULTURAL FUNGICIDE/BACTERICIDE

<b>Active Ingredient:</b>	
Copper Hydroxide*†	77.00%
Other Ingredients	23.00%
Total:	100.00%

\* Metallic copper equivalent 50%      †CAS No. 20427-53-2

**KEEP OUT OF REACH OF CHILDREN**  
**DANGER - PELIGRO**  
 Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
 (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
<b>If In Eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for further treatment advice.</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 further treatment advice.</li> </ul>
<b>If Swallowed</b>	<ul style="list-style-type: none"> <li>• Call poison control center or doctor for treatment advice.</li> <li>• Do not induce vomiting unless told to do so by the 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 Inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call poison control center or doctor for treatment advice.</li> </ul>

### HOT LINE NUMBER

**EMERGENCY TELEPHONE NUMBERS:** Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC) at 1-800-858-7378 seven days a week, 6:30 am to 4:30 pm Pacific Time (NPIC Web site: [www.npic.orst.edu](http://www.npic.orst.edu)).

**Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.**

*See side/back panels for additional precautionary statements*

EPA Reg. No. 55272-17  
AD 101697

EPA Est. No. 45002-MX-02  
Product of Mexico

Net Contents: 50 Pounds

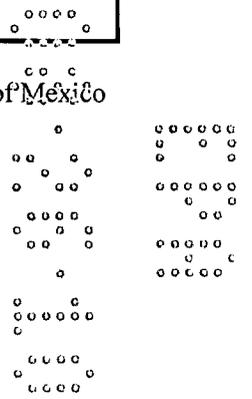
**ACCEPTED  
with COMMENTS  
In EPA Letter Dated**

**SEP 1 2010**

**Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticides  
registered under EPA Reg. No.**

Ingenieria Industrial S.A. de C.V.  
Av. Coyoacan 1878-403  
Col. Del Valle  
03310 Mexico, D.F.

55272-17



**PRECAUTIONARY STATEMENTS**

**DANGER**

**HAZARD TO HUMANS AND DOMESTIC ANIMALS**

Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Avoid contact with skin. Avoid breathing dust. Harmful if swallowed, if inhaled, absorbed through skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Wear PPE as listed below. Remove and wash contaminated clothing before reuse.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Mixers, loaders, applicators and other handlers must wear the following:

- Long-Sleeved shirt and long pants
- Shoes and socks
- Protective eyewear such as safety glasses, goggles or face shield.

Some materials that are chemical resistant to this product are: polyethylene, polyvinyl chloride, barrier-laminate, and butyl, nitrile, neoprene, and natural rubber. If you want more options, follow the instructions for category A on an EPA chemical resistance category selection chart.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

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.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash-waters or rinsate.

Certain water conditions including low pH ( $\leq 6.5$ ), low dissolved organic carbon (DOC) levels (3.0 mg/L or lower), and "soft" waters (i.e., alkalinity less than 50 mg/L), increases the potential acute toxicity to non-target aquatic organisms.

Runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

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

This product may contaminate water through runoff. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Waters treated with this product may be hazardous to aquatic organisms. Treatment of aquatic weeds and algae can result in oxygen loss from decomposition of dead algae and weeds. This oxygen loss can cause fish and invertebrate suffocation. To minimize this hazard, do not treat more than 1/2 of the water body to avoid depletion of oxygen due to decaying vegetation. Wait at least 10 to 14 days between treatments. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Consult with the State or local agency with primary responsibility for regulating pesticides before applying to public waters, to determine if a permit is required.

**DIRECTIONS FOR USE**

**It is a violation of Federal law to use this product in a manner inconsistent with its labeling.**

Do not apply this product in a way that will contact workers, other persons, adults, children, or pets either directly or through drift. Only protected handlers may be in the area during application. For requirements specific to your State or Tribe, consult the State or Tribe agency responsible for pesticide regulations.

**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 intervals (REI). 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 48 hrs.

The restricted entry interval for greenhouses may be reduced to 24-hour REI, provided that the following conditions are met:

- For at least seven days following the application of copper-containing products in greenhouses at least one container or station designed specifically for flushing eyes is available in operating condition with the WPS-required decontamination supplies for workers entering the area treated with copper-containing products
- Workers are informed orally, in a manner they can understand:
  - That residues in the treated area may be highly irritating to their eyes,
  - That they should take precautions, such as refraining from rubbing their eyes, to keep the residues out of their eyes,
  - That if they do get residues in their eyes, they should immediately flush their eyes with the eye flush container for eye flush station that is located with the decontamination supplies, and
  - How to operate the eye flush container or eye flush station.

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:

1. Coveralls
2. Shoes plus socks
3. Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
4. Protective eyewear such as safety glasses, goggles or face shield

**NON-AGRICULTURAL USE REQUIREMENTS**

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

Applicators & other handlers who handle this pesticide for use NOT covered by the Worker Protection Standard (40 CFR part 170) must wear: long-sleeved shirt, chemical resistant gloves made of waterproof material (such as polyvinyl chloride, nitrile rubber or butyl rubber), shoes plus socks, and protective eyewear.

**Do not enter or allow others to enter treated areas until sprays have dried.**

**STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage or disposal. Open burning and dumping is prohibited. Do not reuse empty container.

**Storage:** Store in a cool, secure, dry area in original containers. Keep product dry as product is water soluble. When opening, closing or handling open packages, or pouring product, wear goggles to prevent dusting into eyes. Spilled product should be swept up, used if clean, or disposed of according to the procedures below. Store product in original container. Store pesticide separately to prevent cross-contamination of other pesticides, fertilizers, food and feed.

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

**Container Handling: (Paper Bag)**  
 Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles. If not emptied in this manner the bag may be considered an acute hazardous waste and must be disposed in accordance with local, state and federal regulations. When completely empty, offer for recycling if available, or dispose of bag in a sanitary landfill or by incineration, or, if burned, stay out of smoke.

### GENERAL INSTRUCTIONS

Nu-Cop 50WP may be applied by Aerial, or by Dilute or Concentrate Ground Sprayers, or Chemigation on crops and at rates given on this label unless specifically prohibited for that crop use. Sufficient spray volume and spray pressure is essential to thoroughly penetrate the plant canopy and give thorough spray coverage and at the times indicated. On crops sensitive to copper fungicides use the higher volumes of spray water per acre. Use the higher dosage of Nu-Cop 50WP on mature trees, or when disease pressure is severe or weather conditions warrant.

When using adjuvants or other pesticides in combinations with this product, always observe the caution statements on the product's label and required days before harvest. Sprays of Nu-Cop 50WP may be applied up to 24 hours pre-harvest. Before mixing with other products in spray tank, be sure that products are compatible. If compatibility is in question, use the compatibility jar test before mixing the whole tank. Nu-Cop 50WP should not be applied in spray water having a pH of less than 6.5 as phytotoxicity may result. Use a buffering agent to increase the pH to 6.5 – 7.0 if your water source is below 6.5. Also avoid using water having a pH of greater than 9.0 as effectiveness may be reduced.

### MIXING INSTRUCTIONS FOR SPRAY APPLICATION

Fill the spray tank one-fourth to one-third full with clean water. Start agitation (NOTE: Proper agitation creates a rippling or rolling action on the liquid surface). Add Nu-Cop 50WP at the recommended rate.

Mix thoroughly and then add enough water to fill spray tank. Maintain sufficient agitation during mixing and during application of sprays to ensure a uniform spray mixture. When tank mixing with other products, follow the mixing sequence below: (1) micronutrients and fertilizers, (2) wettable powders, dry flowables, and water dispersible granules, (3) liquid flowables, (4) emulsifiable concentrates, and (5) adjuvants. Before adding the second pesticide, be sure that the prior product is well mixed and suspended.

### MINIMUM SPRAY VOLUME REQUIREMENTS IN GALLONS PER ACRE (GPA)

If a crop is sensitive to copper sprays, higher volumes of spray water will decrease potential injury. A full dilute spray on tree crops means the maximum amount of spray when uniformly applied that an acre of such trees will hold to the point that excess spray begins to drip off. Thus the dilute spray volume per acre will depend on tree size and leaf surface per acre. The following listed dilute spray volumes are the volume that will generally provide such coverage on average size of full leafed trees. A concentrate spray is a spray applied in less volume than a dilute. The extent of the concentration varies by equipment used. Thus the following spray volumes for a concentrated spray are the minimum volumes recommended per acre.

Use Nu-Cop 50WP as noted below unless indicated otherwise in the specific crop directions. Nu-Cop 50WP is adaptable to spraying from aircraft and ground spraying equipment. Depending on the equipment used and the specific crop, the volume applied per acre will differ. Refer to recommended volumes below (gallons per acre):

	Aerial	Dilute	Ground Concentrate
Vegetable and Field Crops	3	20	--
Small Fruits	5	150	50
Vines	5	150	50
Fruit and Nut Trees*	10	300-400	50
Citrus	10	800-1,000	100 (50 FL)

\* On young fruit trees, use a minimum of 1 gallon spray per acre; for other tree crops depending on size, use up to 800 gallons per acre.

### CHEMIGATION INSTRUCTIONS

Do not apply this product through any irrigation system using aluminum parts or components as damage to the system may occur. Such application is prohibited regardless of whether the irrigation system is flushed with water after use of this product.

Apply this product only through one or more of the following types of systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveling gun, solid set, or hand move irrigation system(s) which contain no aluminum parts or component. Do not apply this product through any other type of irrigation system.

Crop injury or lack of effectiveness can result from non-uniform distribution of treated water. If you have question about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety device for public water systems in place. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

A. Center Pivot, Traveler, Big Gun, Motorized Lateral Move, End Tow, and Side Wheel Roll Irrigation Equipment: Operate system and injection equipment at normal pressures recommended by the manufacturer of injection equipment used. Fill tank or injection equipment with water. Operate system for one complete circle for center pivot or one complete run for the other recommended equipment, measuring time required, amount of water injected, and acreage contained in circle or run. Mix recommended amount of product for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run, but continue to operate irrigation system until the product has been cleared from last sprinkler head. Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur.

B. Solid Set and Hand Move Irrigation Equipment: Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a thirty to forty-five minute period. Mix desired amount of product for acreage to be covered into quantity of water used during calibration and operate entire system at normal pressures recommended by the manufacturer of injection equipment used for amount of time established during calibration. Provide constant mechanical agitation in the mix tank to insure that the product will remain in suspension during the injection cycle. This product can be injected at the beginning or the end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until pesticide is cleared from last sprinkler head.

### SAFETY DEVICES

(1) The system designated above must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. (2) All pesticide injection pipelines must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. (3) The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. (4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. (5) The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. (6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. (7) Do not apply when wind speed favors drift beyond the area intended for treatment.

### SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Public water system means a system for the provision to the public of piped water for human consumption if such a 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, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into the reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top of or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. 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.

For additional instructions on safety precautions refer to statements (2), (3), (4), (6), and (7) in the section on SAFETY DEVICES.

### POSTING INSTRUCTIONS

Posting of areas to be chemigated is required when any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any public areas such as schools, parks, playgrounds, or other public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or when chemigated area is open to the public, such as golf courses or retail greenhouses.

Posting must conform to the following requirements: Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. This sign is in addition to any sign posted to comply with the Worker Protection Standard. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated areas towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of material to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 ½ inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

### SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

#### **Droplet Size**

Apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

#### **Wind Speed**

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition (approximately 3 to 10 mph), and there are no sensitive areas within 250 feet downwind.

#### **Temperature Inversions**

If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

#### **Other State and Local Requirements**

Applicators must follow all state and local pesticide drift requirements regarding application of copper compounds. Where states have more stringent regulations, they must be observed.

#### **Equipment**

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

#### *Additional requirements for aerial applications:*

- The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
- Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.
- When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

#### *Additional requirements for ground boom application:*

- Do not apply with a nozzle height greater than 4 feet above the crop canopy.

FROST INJURY PROTECTION

Bacterial ice nucleation inhibitor - Application of Nu-Cop 50WP made to all crops listed on this label at rates and stages of growth indicated on this label at least 24 hours and not more than 72 hours prior to anticipated frost condition, will afford control of ice nucleating bacteria (*Pseudomonas syringes*, *Erwinia herbicola*, and *Pseudomonas flourescens*) may thereby provide some protection against light frost. The degree of frost protection will vary with weather conditions and other factors. Not recommended for those geographical areas where weather conditions favor severe frost.

CROP: DISEASE	APP. RATE (LBS PRODUCT/A per application)*	MAX APP. RATE (LBS PRODUCT/A per year)	MIN. RETREATMENT INTERVAL (DAYS)	COMMENTS
ALFALFA: <i>Cercospora</i> , <i>Leptosphaerulina</i> Leaf Spots	1.06 lbs. per acre	2.24	30	Apply 10-14 days before each harvest or earlier if disease threatens. Apply before each harvest or earlier if disease threatens. Apply with ground or aerial equipment. Spray injury may occur with sensitive varieties.
ALMONDS (dormant application): <i>Coryneum</i> Blight, Blossom Brown Rot	16 lbs. per acre	36	7	Apply a dormant application, before foliage buds begin to swell. Use higher rates when rainfall is heavy and disease pressure is high.
ALMONDS (early bloom application): <i>Coryneum</i> Blight, Blossom Brown Rot	16 lbs. per acre	36	5	Apply in early bloom popcorn application. Apply before full bloom. Use higher rates when rainfall is heavy and disease pressure is high. NOTE: To avoid plant injury, do not use above rate after full bloom.
APPLES: Anthracnose, <i>Pseudomonas</i> , European Canker	3-4 lbs. in 100 gals. of water or 9-16 lbs. per acre as a concentrate spray.	16*	N/A (only 1 app. per season)	Apply as a late dormant treatment in the fall before fall rains. Dilute to 3-4 lbs. product per 100 gallons and apply 400 gallons of spray mix per acre. NOTE: Use on yellow varieties may cause discoloration.
APPLES: Fire Blight	2-4 lbs. per 100 gals. of water as full cover spray or 8-12 lbs. per acre as a concentrate	12*	N/A (only 1 app. per season)	Apply silver and green tip stages. Dilute to 2-4 lbs. product per 100 gallons. Do not apply after green tips reach 1/2 inch because phytotoxic problems may occur on later applications.
APPLES: Crown or Collar Rot	4 lbs. per acre	4*	N/A (only 1 app. per season)	Apply 4 lbs. product per acre in 100 gallons of water. Apply as a drench on the lower trunk area of each tree in early spring or late fall after harvest. NOTE: Use on yellow varieties may cause discoloration.

CROP: DISEASE	APP. RATE (LBS PRODUCT/ A per application)*	MAX APP. RATE (LBS PRODUCT/A per year)	MIN. RETREATMENT INTERVAL (DAYS)	COMMENTS
<b>APRICOTS:</b> Coryneum Blight (Shot Hole) & Blossom Brown Rot	3 lbs. per acre	3	N/A (only 1 app. per season)	Apply at popcorn to full bloom. Use higher rate when conditions favor disease. Do not apply after bloom as crop injury may result.
<b>ATEMOYA:</b> Anthracnose	6.3 lbs. per acre.	25.2	7	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Not for use in California.
<b>AVOCADOS:</b> Scab	6.3 lbs. per acre	37.8	14	Apply when bloom buds begin to swell. Continue application at monthly intervals for 5 or 6 applications. Use the higher rate when conditions favor disease.
<b>BANANAS:</b> Sigtoka	2.1 lbs. per acre in 3 gals. water containing 0.5 gal. agricultural oil	37.8	7	Apply by air on a 14 day schedule throughout the wet season. Apply 2.1 lbs. product per acre diluted with 3 gals. water containing 0.5 gal. agricultural oil. Apply at 21 day intervals during dry periods.
<b>BANANAS:</b> Black Pitting	2.1 lbs. per 100 gals. of water-- Apply on 50 gals. per acre	37.8	7	Apply 2.1 lbs. product per acre diluted with 50 gals. water. Apply directly to the fruit stem and include the basal portion of the leaf crown. Apply during the first and second weeks after fruit emergence.
<b>BEANS:</b> Bacterial Blight (Halo, Brown Spot, and Common)	1 to 1.58 lbs. per acre	9.48	7	For protective sprays apply first application when plants have second trifoliolate leaves or are about five or six inches high. Apply on 7-14 day schedule depending on local conditions. Use depending on disease severity.
<b>BLACKBERRIES:</b> (Santiams, Logans, Boysens, Marions, Auroras, Cascades, Chehalems, and Thornless Evergreens): Leaf & Cane Spot	4 lbs. plus 1 qt. crop oil per 100 gals.	20	7	Apply delayed dormant spray after training in spring, or fall after harvest.
	2 lbs. plus 1 qt. crop oil per 100 gals.			Apply in late spring.
<b>BLUEBERRIES:</b> Bacterial Canker	4 lbs. per acre.	16.8	7	Make first application before fall rains and a second application four weeks later. Not for use in California.
<b>BROCCOLI, BRUSSELS SPROUTS, CABBAGE, CAULIFLOWER &amp; COLLARDS:</b> Downy Mildew (Peronospora) –	0.5 to 1 lb. per acre	5.3	7	Apply at 7 day intervals.

CROP: DISEASE	APP. RATE (LBS PRODUCT/ A per application)*	MAX APP. RATE (LBS PRODUCT/A per year)	MIN. RETREATMENT INTERVAL (DAYS)	COMMENTS
CABBAGE ONLY: Black Rot (Xanthomonas) & Black Leaf Spot (Alternaria)	1.06 lbs. per acre	5.3	7	Apply at 7-10 day intervals. For control of disease of these crops begin application after transplants are set in the field, or shortly after emergence of field seeded crops or when conditions favor disease development.
CACAO: Black Pod	2 to 4.5 lbs. per acre	31.5	14	Begin applications at the start of the rainy season and continue while infection conditions persist. Sprays should be made as often as 14 to 21 days in high rainfall areas at varying rates depending on disease severity.
CARAMBOLA: Anthracnose	4.2 lbs. per acre	21	7	Make initial application just before flowering and repeat on a weekly schedule until just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Not for use in California.
CARROTS: Carrot Blight (Cercospora)	2 lbs. per acre	10	7	When disease threatens, apply at 7 to 14 day intervals depending on disease severity.
CELERY & CELERIAC (CELERIAC): Early, Late & Bacterial Blights	1-2 lbs. per acre	10.6	7	Apply as soon as plants are first established in the field, then every 7 days depending on severity and weather. Not for use in California on Celeriac.
CHERRIES: Dead Bud (Pseudomonas Syringae) and Coryneum Blight	8-12 lbs. per acre	36*	7	Apply before heavy rains fall and again in late dormant. In orchard where the disease is severe, a spray should also be applied in August.
CHERRIES: Brown Rot Blossom Blight	2 to 3 lbs. per 100 gals. water	36*	5	Apply as a full cover spray, applied at popcorn and full bloom.
CHIVES: Downy Mildew	1.06 lbs. per acre	5.3	7	Begin applications when plants are established in the field. Repeat applications every 7-10 days as dictated by disease conditions.
CITRUS: Melanose, Pink Pitting, and Scab	4-6.3 lbs. per acre	25.2*	7	Apply depending on disease severity, as a pre-bloom and post-bloom spray.

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CROP: DISEASE	APP. RATE (LBS PRODUCT/ A per application)*	MAX APP. RATE (LBS PRODUCT/A per year)	MIN. RETREATMENT INTERVAL (DAYS)	COMMENTS
CITRUS: Greasy Spot	2-6 lbs. per acre	25.2*	7	Apply using higher rates when conditions favor disease.
CITRUS: Brown Rot	4-6.3 lbs. per acre	25.2*	7	Apply beginning in fall and continuing as needed. Apply to skirts of trees to a height of at least 4 feet. Apply also to bare ground one foot beyond skirt. Use higher rates when conditions favor disease. NOTE: In California, in areas subject to copper injury, add 1/3 to 1 lb. of high quality lime per pound of this product.
CITRUS: Citrus Canker (suppression only)	6.3 lbs. per acre	25.2*	7	Apply spraying flushes 7-14 days after shoots begin to grow. Young fruit may require an additional application. Number and timing of applications will be dependent on disease pressure. Under heavy disease pressure, each flush of new growth should be sprayed.
CITRUS: Phytophthora	1 lb. per acre	25.2*	7	Dilute 1 lb product with 1 gal. of water. Mix and paint trunks of trees from the soil surface to the lowest scaffold limbs. Apply in May prior to summer rains and/or in the fall prior to wrapping trees for freeze protection. Treatment serves as protection for up to one year, but does not cure existing infections. Nu-Cop 50WP may be mixed with dry foliar nutritionals (micronutrients) to create "Shot Bag" mixes to meet the various nutritional requirements of citrus and provide disease protection as described on this label. Nu-Cop 50WP per acre rates in these mixes must not exceed the maximum recommended labeled rates for disease control.
COFFEE: Iron Spot ( <i>Cercospora coffeicola</i> ) and Pink Disease ( <i>Corticium salmonicolor</i> )	2 lbs. per acre	6*	14	Begin treatment at start of wet season and continue at monthly intervals for three applications.
COFFEE: Coffee berry disease ( <i>Collectotrichum coffeanum</i> )	4.2 lbs. per acre	25.2	14	Make first spray after flowering and before onset of long rains and repeat at 21 to 28 day intervals until picking. Use higher rates and shorter intervals when rainfall is heavy and disease pressure is high.
COFFEE: Bacterial blight ( <i>Pseudomonas syringae</i> )	4.2 lbs. per acre	25.2	14	Begin spray program before onset of the long rains and continue throughout the rainy season at 14 to 21 day intervals. The critical time of spraying to control this disease is just before, during and after flowering(s), especially when coinciding with wet weather. Use higher rates and shorter intervals when rainfall is heavy and disease pressure is high.

CROP: DISEASE	APP. RATE (LBS PRODUCT/A per application)*	MAX APP. RATE (LBS PRODUCT/A per year)	MIN. RETREATMENT INTERVAL (DAYS)	COMMENTS
COFFEE: Leaf Rust (Hemileia vastatrix)	3.5 to 4.2 lbs. per acre	25.2	14	Apply for average density plantings. Make first application before the onset of rains and then continue at 21 day intervals while the rains continue and disease conditions continue. Use the higher rates when rainfall is heavy and disease pressure is high.
CRANBERRY: Fruit Rot	4.2 lbs. per acre	12.6	7	Apply beginning in late bloom (mid-July), followed by two additional applications made at 10 to 14 day intervals.
CANTALOUPE, HONEYDEWS, MUSKMELONS, PUMPKINS, SQUASH & WATERMELONS: Alternaria Leaf Spot, Angular Leaf Spot, Anthracnose, Downy Mildew, Powdery Mildew, Gummy Stem Blight, Watermelon Bacterial Fruit Blotch (suppression)	1.5 -2.1 lbs. per acre	10.5	5	Begin application when conditions are favorable for disease development. Repeat at 5-10 day intervals. Use higher rates when conditions favor disease. NOTE: Crop injury may occur from application at higher rates and shorter intervals. Discontinue use if injury occurs.
CURRANTS & GOOSEBERRY: Anthracnose & Leaf Spot	5 lbs. per acre	15	10	Make three applications, starting after harvest, before bloom and after petal fall.
DILL: Phoma Leaf Spot, Rhizoctonia Foliage Blight	1.58 lbs. per acre	3.95	7	Begin applications when plants are first established in the field and repeat at 7-10 day intervals depending upon disease severity and environmental conditions. Use higher rates when conditions favor disease. Not for use in California.
DOUGLAS FIR: Rhabdocline neddlecast	2 lbs. per acre	40	7	Begin applications at bud break and repeat at 3-4 week intervals. Apply in a tank mix with another registered pesticide if moderate to severe disease pressure is present.
EGGPLANT: Alternaria blight, Anthracnose, Phomopsis	1.58 lbs. per acre	7.9	7	Use before disease appears. Repeat at 7 to 10 day intervals.
FILBERT: Bacterial Blight	12 lbs. per acre in 100 gals.	24*	14	Permitted only in WA and Oregon. Dilute 12 lbs. product in 100 gals. water. Use as a post harvest spray in late August or early September. In seasons of heavy rainfall, apply another spray when three-quarters of leaves have dropped.
FILBERT: Eastern filbert blight	12 lbs. per acre in 100 gals.	36*	14	Permitted only in WA and Oregon. Dilute 12 lbs. product in 100 gals. water. Apply as a dilute spray in sufficient water for thorough coverage. Make initial application after harvest in October before heavy winter rains begin. Repeat application in late February to early March and again 4 weeks later.

CROP: DISEASE	APP. RATE (LBS PRODUCT/A per application)*	MAX APP. RATE (LBS PRODUCT/A per year)	MIN. RETREATMENT INTERVAL (DAYS)	COMMENTS
GINSENG: Alternaria leaf & Stem blight	2.1 lbs. per acre	10.5	7	<p>Begin applications as soon as plants emerge in spring. Dilute 2.1 lbs. product in 100 gallons of water and 2 lbs. of Rovral 50W. Applications should be repeated every 7 days until plants become dormant in fall. If scheduled application is to be made before a rain shower, apply fungicides at least 8 hours before the rain, giving the fungicides time to dry on the plants. Use of a spreader-sticker or sticker is advised.</p> <p>NOTE: Alternaria leaf &amp; Stem blight are most severe in humid conditions such as those found in the dense canopies of 2-4 year old ginseng. It is very important that the stems be thoroughly covered with fungicide; therefore, use a spray apparatus which distributes the fungicide throughout the canopy.</p>
GRAPES: Black Rot, Powdery Mildew & Downy Mildew	2 lbs. plus 1-3 lbs. hydrated lime per acre	40	3	<p>Apply as a dilute or concentrate spray. Use for the last one or two late summer applications following early season application of another fungicide. Follow State schedule for exact timing. (Precaution: Slight to severe foliage injury may occur on copper-sensitive varieties.)</p>
GUAVA: Anthracnose, Red Algae	2.46 lbs. per acre	9.84	7	<p>Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.</p>
HOPS: Downy Mildew	1.03 lbs. per acre	5.3	10	<p>Apply as a fungicide crown treatment after pruning, but before training. After training, apply every 10 days. Discontinue use 2 weeks before harvest.</p>
KIWI: Blossom Blight (Bud Rot) & Leaf Spot (Phomopsis)	1 to 1 1/2 lbs. per acre	6.3	30	<p>Make two to three applications during dormant season. Do not apply at time of or after leaf emergence for control of these fungal diseases.</p>
KIWI: Pseudomonas syringae, Erwinia herbicola & Pseudomonas fluorescens	4.2 lbs. in 200 gals. of water per acre	6.3	30	<p>Begin applications at first sign of disease. Make applications on a monthly basis. A maximum of 3 applications may be made.</p>
LETTUCE, ENDIVE & ESCAROLE: Downy Mildew	1 to 2 lbs. per acre in 5-20 gals. of water by ground, or 3-20 gallons of water by air	8	5	<p>Begin treatment when disease first appears and repeat every 5-7 days as needed to suppress disease. NOTE: The application rate recommended may cause yellowing of leaf margins. Sensitivity may vary due to varieties and weather conditions. Increasing the volume of spray water will frequently decrease phytotoxicity potential.</p>
LITCHI: Anthracnose	2.46 lbs. per acre	9.84	7	<p>Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Not for use in California.</p>

CROP: DISEASE	APP. RATE (LBS PRODUCT/A per application)*	MAX APP. RATE (LBS PRODUCT/A per year)	MIN. RETREATMENT INTERVAL (DAYS)	COMMENTS
LIVE OAK: Ball Moss & Spanish Moss	4 lbs. per acre	40	7	Apply in spring after heavy rain. Dilute 6 lbs. product in 100 gals. water. Thoroughly wet tree and moss applying about 1.5 gallons per foot of tree height. A second application may be required after 12 months.
MACADAMIA NUTS: Anthracnose	4.72 lbs. per acre	18.9	7	Initiate sprays at first sign of flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.
MACADAMIA NUTS: Blossom blight & Raceme blight	3 to 4.72 lbs. per acre	18.9	14	Apply depending on disease pressure in 50-300 gallons of water during peak raceme development and bloom period.
MAMEY SAPOTE: Anthracnose, Algal Leaf Spot	4.2 lbs. per acre	16.8	14	Apply when conditions favor disease development. Repeat on 14-30 day schedule as disease severity and environmental conditions dictate. Use higher rates when conditions favor disease. Not for use in California.
MANGO: Anthracnose	5.1 lbs. per acre	61.2	30	Apply monthly after fruit set until harvest. Not for use in California.
OLIVES: Peacock Spot, Olive Knot	6.3 lbs per acre	12.6	30	Use before fall rains begin. A second application in early spring should be made if disease is severe.
ONIONS: Purple Blotch & Downy Mildew	2 lbs. per acre	12	7	Apply when plants are 4 to 6 inches high and repeat at 7 to 10 day intervals. Addition of a spreader-sticker at recommended rates may improve wetting of onion foliage.
PAPAYA: Anthracnose	2 lbs. per acre	42.4	14	Addition of a sticker may be desirable. Begin treatment before rains when disease is expected. Dilute 2 lbs. of product with 100 gals. of water. Repeat at 10 to 14 day intervals during periods of heavy rainfall. Not for use in California.
PARSLEY: Bacterial Blight (Pseudomonas sp.)	2 lbs. per acre	4	10	Begin applications when plants are first established in the field and repeat at 10 day intervals depending upon disease severity and environmental conditions. Not for use in California.
PASSION FRUIT: Anthracnose	4.72 lbs. per acre	18.9	7	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Not for use in California.
PEACHES & NECTARINES: Leaf Curl & Coryneum Blight (Shot Hole)	8 to 16 lbs. per acre	16*	7	Apply at leaf fall. Use the higher rates per acre when rainfall is heavy and disease pressure is high. Addition of agricultural spray oil may be desired.
PEACHES & NECTARINES: Brown rot blossom blight	8 to 12 lbs. per acre	12*	7	Apply at as a full cover spray at pink bud. (Application at this time also affords some control of Leaf Curl and Coryneum Blight).

CROP: DISEASE	APP. RATE (LBS PRODUCT/ A per application)*	MAX APP. RATE (LBS PRODUCT/A per year)	MIN. RETREATMENT INTERVAL (DAYS)	COMMENTS
PEACHES & NECTARINES: Bacterial spot	12 to 16 lbs. per acre	32*	7	Apply as a dormant application. If Bacterial spot infection is potentially heavy, two post bloom sprays applying ¼ lb. per 100 gallons at first and second cover sprays in full dilute spray may aid control. Do not spray later than three weeks prior to harvest. Do not use at rates above those recommended. (Precaution: Slight defoliation and spotting of leaves may occur from use in cover sprays).
PEANUTS: Cercospora Leaf Spot	1.5 lbs. per acre	9.48	7	Begin spraying 25 to 40 days after planting or when disease symptoms appear. Make ground or aerial application. Continue applications at 10-14 day intervals. Use sufficient water to get adequate coverage.
PEARS: Fire Blight	1 lb. per acre	32*	5	Apply at 5 day intervals throughout bloom period.
PEARS: Pseudomonas blight	12-16 lbs. per acre	32*	N/A (only 1 app. per season)	Apply before fall rains. Make a second application during dormancy before spring growth begins. The higher rate is required when increased disease pressure is present or when conditions favor development of the disease. (PRECAUTION: May cause fruit russet).
PEAS: Powdery Mildew	1.5 lbs. per acre	7.9	7	Begin spray treatment when disease symptoms first appear. Use according to disease severity. Repeat applications at weekly intervals.
PECANS: Shuck and Kernel Rot (Phytophthora cactorum) and Zonate Leaf Spot (Cristulariella pyramidalis)	2 to 4 lbs. per acre	16.8	14	For suppression, apply in sufficient water for good coverage at 2 to 4 week intervals starting at kernel growth and continuing until shucks open. Use the higher rate and shorter intervals if frequent rainfall occurs.
MOSSES, ALGA, and LICHEN	4 lbs. per acre	40	14	Mix spray plus spreader-sticker on a dilute spray basis and apply in dormant season before buds swell, thoroughly wetting limbs and mosses. Dilute 4.2 lbs. product in 100 gals. water.
PEPPERS: Bacterial Spot	1.58 lbs. per acre	23.7	3	When disease threatens, apply at 7-14 day intervals depending on disease severity.
PISTACHIOS: Botrytis Blight, Botryosphaeria Panicle and Shoot Blight, Septoria Leaf Blight, Late Blight (Alternaria)	4 lbs. per acre	16.8	14	Make initial application at bud swell and repeat on a 14-28 day schedule. Use higher rates when conditions favor disease.
PLUMS & PRUNES: Coryneum blight (Shot Hole)	8-16 lbs. per acre	36*	7	Apply as a dormant spray. Use the higher rate when rainfall is heavy and/or disease pressure is high.
PLUMS & PRUNES: Brown rot blossom blight	8-12 lbs per acre	36*	7	Apply full cover application at pink, red, or early white bud stage. Use the higher rate when disease pressure is heavy or conditions favor disease development.

CROP: DISEASE	APP. RATE (LBS PRODUCT/A per application)*	MAX APP. RATE (LBS PRODUCT/A per year)	MIN. RETREATMENT INTERVAL (DAYS)	COMMENTS
POTATOES: Early & Late Blight	1-1.5 lbs. per acre, light disease & 3-4 lbs. per acre, severe disease	50	5	Apply at 7 to 10 day intervals starting when plants are 4 to 6 inches and continue until harvest. If late blight is a problem, apply prior to digging or in vine kill spray.
QUINCE: Fire Blight	1 lb. per acre	32	5	Apply at 5 day intervals through bloom period. Apply in adequate water for thorough coverage. Not for use in California.
RASPBERRY: Leaf & Cane spot.	4 lbs. per acre	20	7	Apply as a delayed dormant spray after training in the spring. Make fall application after harvest. Add 1 qt. of crop oil per acre.
SPINACH: Anthracnose, Cercospora leafspot, Downy mildew, & White rust	1.58 lbs. per acre	7.9	7	Begin treatment when disease first appears and repeat every 7-10 days as needed to suppress disease.
STRAWBERRIES: Downy mildew, Leaf spot & Leaf blight	2 to 3 lbs. per acre	16.4	7	Dilute 3 lbs. product in 100 gals. water. Begin spray when plants are established and continue on a weekly schedule throughout the season. Discontinue application if signs of phytotoxicity appear. May be used in nursery and field plantings.
SUGAR APPLE: (Annona) Anthracnose	6.3 lbs. per acre	25.2	7	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Not for use in California.
SUGAR BEETS & TABLE BEETS (TABLE BEETS) Cercospora Leaf Spot	2 to 2.62 lbs. per acre	15.7	10	Start spray when disease threatens and continue for 4 to 5 applications. Spray 10-14 days depending on weather conditions and disease severity. Addition of suitable agricultural spray oil is recommended.
SYCAMORE: Anthracnose	2 to 3 lbs. per 100 gals. of water	25.2	7-14	Make two applications as a full cover spray. Make first application at bud crack and second application 7-14 days later at 10% leaf expansion
TOMATOES - PROCESSING: Early Blight, Anthracnose, Bacterial speck, Gray leaf spot, Gray leaf mold, Late Blight, Septoria leaf spot	1.06 lbs. per acre	34.8 for processing tomatoes; 16 for fresh market tomatoes	3	When disease threatens, apply at 7-10 day intervals. Use more frequent application when disease pressure is high.

CROP: DISEASE	APP. RATE (LBS PRODUCT/ A per application)*	MAX APP. RATE (LBS PRODUCT/A per year)	MIN. RETREATMENT INTERVAL (DAYS)	COMMENTS
TOMATOES - PROCESSING: Bacterial spot	1.06 lbs. per acre	34.8 for processing tomatoes; 16 for fresh market tomatoes	3	When disease threatens, apply at 7 to 10 day intervals, more frequently when disease is severe. May be tank mixed with 1.5 to 2 lbs. per acre of maneb or coordination product of maneb and zinc (80% active ingredient) if product is labeled for use on tomatoes. Follow all directions for use and days between last spray and harvest on those product labels. Do not use above named fungicides in the tank mix unless they are registered for use on tomatoes. Addition of a chlorothalonil like Bravo, controls target leaf spot and may enhance control of some of the other listed diseases on this label with a tank mix.
TURFGRASS: Algae	½ lb. per 1,000 sq. ft. in 5 gals. of water- max 6 lbs per acre	42	10	May be used as a maintenance spray as needed. May be used alone or in combination with fungicides such as dithiocarbamates. Phytotoxicity may depend on varietal differences. Apply the recommended rate to a small area and observe 7-10 days for phytotoxicity. If phytotoxicity occurs, discontinue use.
WALNUTS: Bacterial Blight	6.3 lbs. per acre	64	7	Make first application at early pre-bloom prior to or when catkins are partially expanded. Make additional applications during bloom, and early nutlet stage or as needed if frequent rainfall occurs.
WATERCRESS: Cercospora Leaf Spot	1.06 lbs. per acre	4.24	7	Begin application when plants are first established in the field, repeating at 7-14 day intervals depending on disease severity and environmental conditions. Do not exceed 4 applications per crop. Apply using ground spray equipment at no less than 50 gallons of spray solution per acre.
WHEAT, OATS & BARLEY: Septoria Leaf Blotch, Helminthosporium spot blotch	1.06 lbs. per acre	2.12	10	Make first application at early heading and follow with second application 10 days after.

\*Apples: Do not exceed 32 lbs. product per acre per year from all applications.  
 Cherries: Do not exceed 36 lbs. product per acre per year from all applications.  
 Citrus: Do not exceed 25.2 lbs. product per acre per year from all applications.  
 Coffee: Do not exceed 25.2 lbs. product per acre per year from all applications.  
 Filbert: Do not exceed 48 lbs. product per acre per year from all applications.  
 Macadamia Nuts: Do not exceed 18.9 lbs. product per acre per year from all applications.  
 Peaches: Do not exceed 36 lbs. product per acre per year from all applications.  
 Pears: Do not exceed 32 lbs. product per acre per year from all applications.  
 Plums: Do not exceed 36 lbs. product per acre per year from all applications.

## ORNAMENTALS

Notice to User: Plant sensitivities to copper hydroxide have been found to be acceptable in specific genera and species listed on this label; however, phytotoxicity may occur. Due to the large number of species and varieties of ornamentals and nursery plants, it is impossible to test every one for sensitivity to Nu-Cop 50WP. Neither the manufacturer nor seller has determined whether or not Nu-Cop 50WP can be safely used on ornamentals or nursery plants not listed on this label. The user should determine if Nu-Cop 50WP can be used safely prior to commercial use. In a small area, apply the recommended rates to the plants in question, i.e., bedding plants, foliage, etc., and observe for 7 – 10 days for symptoms of phytotoxicity prior to commercial use.

Use this product on container, bench, or bed-grown ornamentals in greenhouses or outdoor nurseries, for professional use on ornamentals grown for indoor and outdoor landscaping, and for control of bacterial and fungal diseases of foliage, flowers and stems.

Apply as a thorough coverage spray using 1 lb. per 100 gallons of water. Begin application at first sign of disease and repeat at 7 – 14 day intervals as needed; use shorter interval during periods of frequent rains or when severe disease conditions persist.

This product may be used as a maintenance spray alone or in combination with other fungicides such as dithiocarbamates.

### **Easter Lilies:**

Maximum application rate is 5 lbs. product per acre per application.

Maximum annual application rate is 150 lbs. product per acre per year.

The minimum retreatment interval is 7 days.

Do not apply any additional copper pesticide to this land for 36 months.

### **All Other Ornamentals:**

Maximum application rate is 4 lbs. product per acre per application.

Maximum annual application rate is 40 lbs. product per acre per year.

The minimum retreatment interval is 7 days.

## ORNAMENTAL / DISEASES:

Althea (Rose of Sharon)/Bacterial Leaf Spot  
 Aralia/Xanthomonas & Cercospora Leaf Spots, Alternaria  
 Arborvitae/Alternaria Twig Blight, Cercospora Leaf Blight  
 Azalea\*/Cercospora Leaf Spot, Botrytis Blight, Phytophthora Dieback & Powdery Mildew  
 Begonia/Xanthomonas Leaf Spot  
 Bougainvillea/Anthracnose, Bacterial Leaf Spot  
 Bulbs (Easter Lily\*\*, Tulip, Gladiolus)/Anthracnose, Botrytis Blight  
 Camellia/Anthracnose, Bacterial Leaf Spot  
 Camphor Tree/Pseudomonas Leaf Spot  
 Canna/Pseudomonas Leaf Spot  
 Carnation\*/Alternaria Blight, Pseudomonas Leaf Spot, & Botrytis Blight  
 Chinese Tallow Tree/Bacterial Leaf Spot (Xanthomonas sp., Pseudomonas sp.)  
 Chrysanthemum\*/Septoria Leaf Spot, & Botrytis Blight  
 Cotoneaster/Botrytis Blight  
 Dahlia/Alternaria Leaf Spot, Botrytis Gray Mold, Cercospora Leaf Spot  
 Date Palm/Pestalotia Leaf Spot  
 Dianthus/Bacterial Spot, Bacterial Soft Rot  
 Dogwood/Anthracnose  
 Dusty Miller/Bacterial Leaf Spot (Pseudomonas cichorii)  
 Echinacea/Bacterial Leaf Spot (Pseudomonas cichorii)  
 Elm "Drake"/Xanthomonas Leaf Spot  
 Euonymus/Botrytis Blight & Anthracnose  
 European Fan Palm/Pestalotia Leaf Spot  
 Gardenia/Alternaria Leaf Spot, Botrytis Bud Rot, Cercospora Leaf Spot  
 Geranium/Alternaria Leaf Spot, Botrytis Gray Mold, Cercospora Leaf Spot  
 Gladiolus/Alternaria Leaf Spot, Botrytis Gray Mold, Bacterial Leaf Blight  
 Golden Rain Tree/Bacterial Leaf Spot  
 Hibiscus/Bacterial Leaf Spot  
 Holly Fern/Pseudomonas Leaf Spot  
 Impatiens/Bacterial Leaf Spot  
 India hawthorn\*\*\* (greenhouse)/Entomosporium Leaf Spot  
 Ivy\*/Xanthomonas Leaf Spot  
 Ixora/Xanthomonas Leaf Spot  
 Juniper (Eastern Red Cedar)/Anthracnose  
 Lantana/Bacterial Leaf Spot  
 Lilac/Cercospora Leaf Spot  
 Loblolly Bay/Anthracnose  
 Loquat/Entomosporium maculata, Colletotrichum sp.  
 Magnolia (Southern)/Algal Leaf Spot, Anthracnose, Bacterial Leaf Spot  
 Mandevillas/Anthracnose  
 Marigold/Alternaria Leaf Spot, Botrytis Leaf and Flower Rot, Cercospora Leaf Spot  
 Mulberry, Weeping/Bacterial Leaf Spot  
 Oak, Laurel/Algal Leaf Spot (Cephaleuros virescens)  
 Oleander/Bacterial Leaf Spot, Fungal Leaf Spot  
 Pachysandra/Volutella Leaf Blight  
 Pansy/Downy Mildew  
 Pear (Flowering)/Fireblight, Leaf spot  
 Pentas (Egyptian Star)/Bacterial Leaf Spot (Xanthomonas sp.)  
 Peony/Botrytis Blight

- Periwinkle/Phomopsis Stem Blight
- Philodendron/Bacterial Leaf Spot
- Phlox/Alternaria Leaf Spot
- Photinia (Red Tip)/Anthracnose, Entomosporium Leaf Spot
- Pistachio/Anthracnose
- Plantain Lily/Bacterial Leaf Spot
- Powder Puff Plant/Bacterial Leaf Spot
- Pyracantha/Fireblight & Scab
- Queen Palm/Exosporium Leaf Spot, Phytophthora Bud Rot
- Rhododendron/Alternaria Flower Spot
- Rose\*/Powdery Mildew, Black Spot
- Verbena/Xanthomonas Leaf Spot
- Viburnum/Anthracnose
- Washingtonia Palm/Pestalotia Leaf Spot
- Weeping Willow/Anthracnose
- Yucca (Adams Needle)/Cercospora & Septoria Leaf Spot

\*Discoloration of foliage and/or blooms have been noted on some varieties. To prevent residues on commercial plants, do not spray just before selling season.  
 \*\*For Easter Lily, use 3 to 5 lbs. per acre in 20 to 100 gallons water.  
 \*\*\*For India hawthorn, use 2 to 4 lbs. per 100 gallons

CONDITIONS OF SALE AND LIMITED WARRANTY

The Directions For Use of this product reflects the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of INGENIERIA INDUSTRIAL S.A. DE C.V. (INGENIERIA INDUSTRIAL) or the SELLER. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

INGENIERIA INDUSTRIAL warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions For Use, subject to the inherent risks, referred to above.

INGENIERIA INDUSTRIAL MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, INGENIERIA INDUSTRIAL AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. INGENIERIA INDUSTRIAL and the SELLER offer this product, and the Buyer and User accept it, subject to the foregoing Conditions of Sale and Warranty which may be varied only by agreement in writing signed by a duly authorized representative of INGENIERIA INDUSTRIAL.

BRAVO is a Reg. TM of ISK Biosciences.  
 ROVERAL is Reg. TM of Rhone-Poulenc Ag Company.