Copper Sulfate Pentahydrate	GROUP	M01	FUNGICIDE
Copper Sulfate Pentahydrate	GROUP	NOT CLASSIFIED	HERBICIDE

Agri-Life®

Fungicide / Bactericide*/ Algaecide

*Non-public health bacteria

ACTIVE INGREDIENT:

• Copper Sulfate Pentahydrate (CAS #7758-99-8)	19.8%
OTHER INGREDIENTS:	80.2%
TOTAL:	100.0%

• 5% Metallic Copper Equivalent

Agri-Life® contains 0.495 pounds of metallic copper per gallon.
9.9 lbs. per Gallon 1.188 Kg/L
Agri-Life® is a fully dissolved copper product.

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.)

Non-Flammable

DO NOT FREEZE

See booklet for Additional Precautionary Statements and Use Directions.

EPA Reg. No. 88930-2
EPA Est. No. 89146-CA-1

NET CONTENTS:
☐ **2.5 Gallons** ☐ **5 Gallons** ☐ **55 Gallons** ☐ **270 Gallons**

FIRST AID

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information, call the National Poison Center at 1-800-222-1222.

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 physician immediately for treatment advice.

If Swallowed: Call a poison control center or doctor immediately for advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.
For emergency information, call the National Poison Center at 1-800-222-1222.

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

Manufactured for:
Life Science Group, Inc.
Highland, Michigan, USA – (248) 438-5323

Made in the USA

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

DANGER: Corrosive. Causes irreversible eye damage. Harmful if swallowed. Harmful if absorbed through skin. Do not get in eyes, on skin, or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Mixers loaders, applicators and other handlers must wear:

- Protective eyewear (goggles, face shield, or safety glasses).
- Long-sleeved shirt.
- Long pants, shoes and socks.
- Waterproof or chemical-resistant gloves such as barrier laminate; butyl rubber ≥14 mil; nitrile rubber ≥14 mil; neoprene rubber ≥14 mil; polyvinyl chloride (PVC) ≥14 mil; or viton ≥14 mil.
- For overhead exposure wear chemical-resistant headgear.

Engineering Controls Statements:

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS. Pilots must use an enclosed cab that meets the definition listed in the WPS for agricultural pesticides [40 CFR 170.305].

USER SAFETY RECOMMENDATIONS

Users should:

1) Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3) Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

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

PHYSICAL OR CHEMICAL HAZARDS

Do not use near or in containers composed of iron. Do not mix or allow coming in contact with reducing agent. Hazardous chemical reaction may occur.

ENVIRONMENTAL HAZARDS

Fish Advisory Statement: This copper product is toxic to fish and aquatic organisms. Unlike most organic pesticides, copper is an element and will not break down in the environment and will therefore accumulate in sediment with repeated applications. Copper is a micronutrient, but its pesticidal application rate exceeds the amount of copper needed as a nutrient.

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 biomass. This oxygen loss can cause fish and invertebrate suffocation. To minimize this hazard, do not treat more than ½ of the water body (excluding water infrastructure and constructed conveyances such as drainage canals, ditches and pipelines or intakes and aqueducts for drinking water or irrigation use) to avoid depletion of oxygen due to decaying vegetation. Wait at least 14 days between treatments. Begin treatment along the shore and proceed outward 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. Application of algaecides to high density blooms of cyanobacteria can result in the release of intracellular contents into the water. Some of these intracellular compounds are known mammalian hepato- and nervous system toxins. Therefore, to minimize the risk of toxin leakage, manage cyanobacteria effectively in order to avoid applying this product when blooms of toxin-producing cyanobacteria are present at high density. In situations where rapidly reproducing toxic algal species pose a public health threat to drinking or recreational water resources, applicators must receive authorization from applicable state, local or tribal water resources authorities to apply copper at intervals shorter than 14 days should the circumstance demand.

Certain water conditions including low pH (≤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. The application rates on this label are appropriate for water with pH values > 6.5, DOC levels >3.0 mg/L, and alkalinity greater than 50 mg/L. Avoid treating waters with pH values <6.5, DOC levels >3.0, and alkalinity less than 50 ppm (e.g., soft or acid waters), as trout and other sensitive species of fish may be killed under such conditions if present.

Consult your state department of natural resources or fish and game agency before applying this product to public waters. Permits may be required before treating such waters.

For terrestrial uses, this pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has a potential runoff for several months or more after application. Poorly drained soil 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. 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 washwater or rinsate.

PRODUCT INFORMATION:

Agri-Life® is used to control algae or bacteria* in impounded waters, lakes, ponds, livestock watering systems, reservoirs or irrigation canals.

Agri-Life® is used to control algae or bacteria* in non-sprinkler, non-drip irrigation conveyance and chemigation systems, and similar open irrigation conveyances.

Agri-Life® is used to control algae or bacteria* in sprinkler, drip or other types of closed irrigation equipment.

Agri-Life® is used for extending the shelf life of listed fruits, vegetables and other plants by reduction of the bacteria* and fungi that cause spoilage in post-harvest raw fruits, vegetables and other plants from nurseries, greenhouses and fields.

Agri-Life® is used to control algae and tadpole shrimp in rice fields.

Agri-Life® is used for control of plant diseases in listed food and non-food crops, tropical foliage plants, annual /perennial plants, potted flowering plants, shrubs and vines, trees and turfgrass in nurseries, greenhouses and fields.

Copper is a micronutrient, but its pesticidal application rate exceeds the amount of copper needed as a nutrient.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirement specific to your State and 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 (WPS), 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, 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 (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

For greenhouse uses, the REI may be reduced to 24 hours provided that the following conditions are met:

For at least 7 days following the application of this product in greenhouses:

- At least one container or station designed specifically for flushing eyes is available in operating conditions with the WPS-required decontamination supplies for workers entering the area treated with this product.
- Workers are informed orally in a manner they can understand that, **i)** residues in the treated area may be highly irritating to the eyes, **ii)** they should take precautions, such as refraining from rubbing their eyes to keep the residues out of their eyes, **iii)** if they do get residues in their eyes, they should immediately flush their eyes with the eye flush container or in the eye flush station that is located with the decontamination supplies, and **iv)** how to operate the eye flush container or eye flush station.

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls, waterproof or chemical-resistant gloves such as barrier laminate, butyl rubber ≥14 mil, nitrile rubber ≥14 mil, neoprene rubber ≥14 mil, polyvinyl chloride (PVC) ≥14 mil, or viton ≥14 mil, protective eyewear, and shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Do not allow people or pets to enter treated areas until sprays have dried.

RESISTANCE MANAGEMENT

For resistance management, **Agri-Life®** contains a Group M01 fungicide/bactericide*. Any fungal/bacterial population may contain individuals naturally resistant to **Agri-Life®** and other Group M01fungicides/bactericides. A gradual or total loss of pest control may occur over time if these fungicides/bactericides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay fungicide/bactericide resistance, take one or more of the following steps:

- Rotate the use of **Agri-Life®** or other Group M01 fungicides/bactericides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide/bactericides from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide/bactericide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide/bactericide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal/bacterial populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance contact Life Science Group at (248) 438-5323. You can also contact your pesticide distributor or university extension specialist to report resistance.

The multi-site activity grouping, designated by the symbol "M01", comprises a collection of various chemicals that act as general toxophores with several sites of action. These sites may differ between group members.

Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and,
- Surviving plants mixed with controlled individuals of the same species.

Water bodies or management units should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective. Water bodies or management units should be scouted after application to verify that the treatment was effective.

Report any incidence of non-performance of this product against a particular weed species to your retailer, representative or call (248) 438-5323. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemical means to remove escapes, as practical, with the goal of preventing further reproduction.

Implement the Early Detection, Rapid Response practice and Maintenance Control by using the following practices where possible:

- Identify weeds present in a management unit through scouting or history of the water body and understand the biology of target species.
- Applications should target weeds when populations are small and there is low biomass, early in the season to maximize efficacy.
- Applications should be made so that the herbicide contacts the weed. Use the appropriate application method for the use site/weed/chemical combination.
- Weed escapes should not be allowed to go to seed or produce asexual vegetative propagules.
- Use a diversified approach toward weed management. Whenever possible incorporate multiple weed-control practices such as mechanical control, biological management practices, and rotation of MOAs.
- Time applications to have the highest probability for control and minimize need for follow-up control measures. Apply during conditions that minimize herbicide degradation (light /temperature/microbes) and/or dissipation (water exchange).

Contact your local sales representative, local water management agency, or extension agent to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of actions for each target weed.

Aquatic Uses (excluding control of tadpole shrimp or algae in rice fields**):**
This pesticide is toxic to fish and aquatic invertebrates. 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 ½ of the water body (excluding water infrastructure and constructed conveyances such as drainage canals, ditches and pipelines or intakes and aqueducts for drinking water or irrigation uses) to avoid depletion of oxygen due to decaying vegetation. Wait at least 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. Application of algaecides to high density blooms of cyanobacteria can result in the release of intracellular contents into the water. Some of these intracellular compounds are known mammalian hepato- and nervous system toxins. Therefore, to minimize the risk of toxin leakage, manage cyanobacteria effectively in order to avoid applying this product when blooms of toxin-producing cyanobacteria are present at high density. In situations where rapidly reproducing toxic algal species pose a public health threat to drinking or recreational water resources, applicators must receive authorization from applicable state, local or tribal water resources authorities to apply copper at intervals shorter than 14 days should the circumstance demand.

Certain water conditions including low pH (<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. The application rates on this label are appropriate for water with pH values > 6.5, DOC levels >3.0 mg/L, and alkalinity greater than 50 mg/L. Avoid treating waters with pH values <6.5, DOC levels >3.0, and alkalinity less than 50 ppm (e.g., soft or acid waters), as trout and other sensitive species of fish may be killed under such conditions if present. Consult your state department of natural resources or fish and game agency before applying this product to public waters. Permits may be required before treating such waters. Consult your state department of natural resources or fish and game agency before applying this product to public waters. Permits may be required before treating such water.

APPLICATION AND HANDLING EQUIPMENT

Application, handling or storage equipment MUST consist of either fiberglass, PVCs, polypropylenes, Viton, most plastics, aluminum or stainless steel. Never use mild steel, nylon, brass or copper around full strength **Agri-Life®**. Always rinse equipment free and clean of **Agri-Life®** each night with plenty of fresh, clean water. Always store **Agri-Life®** above 32°F. Freezing may cause product separation. Seller makes no warranty for the performance of product which has been frozen.

SPRAY DRIFT MANAGEMENT

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

Droplet Size: Applicators are required to use a medium or coarser droplet size (ASABE S572.1).

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.

SPRAY DRIFT

Aerial Application:

Do not release spray at a height greater than 10 ft. above the vegetative canopy or water, unless a greater application height is necessary for pilot safety.

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speed exceeds 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the application area.
- Do not apply during temperature inversions.

Ground Boom Application:

- Apply with the spray release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE:

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

- Adjust Nozzles - Follow nozzle manufacturer's recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

Boom Height – Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

Release Height - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 ft. above the crop canopy, unless a greater application height is necessary for pilot safety.

Shielded Sprayers - Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

Temperature and Humidity - When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

Temperature Inversions - Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

Wind - Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift

PRECAUTIONS

- This product may be reactive on masonry and metal surfaces such as galvanized roofing. Avoid contact with metal surfaces.
- Environmental conditions such as extended periods of wet weather, acid rain, etc., which alter the pH of the leaf surface may affect the performance of **Agri-Life®** resulting in possible phytotoxicity or loss of effectiveness.
- It must be determined in the selection process if proper application equipment is available and if the waste associated with its use can be properly handled. Materials used on the construction of application equipment is also an important factor as agricultural chemicals are often reactive with soft metals such as aluminum and even some synthetic materials such as plastics, rubbers, etc. Therefore, it is necessary when working with equipment containing these materials, that they are thoroughly flushed with clean water after each day's use.

RESTRICTIONS

- Do not mix **Agri-Life®** with acidic compounds such as products containing aluminum or apply to crops within 14 days before or after application of same.
- Do not spray on cars, houses, lawn furniture, etc.
- Do not mix with pot ash.
- Pilots must use an enclosed cab that meets the definition listed in the WPS for agricultural pesticides [40 CFR 170.305].

CHEMIGATION DIRECTIONS

Apply this product only through one or more of the following types of systems: Sprinkler including center pivot, lateral move, end row, side (wheel) roll, traveler, big gun, solid set or hand move: flood (basin); furrow; border or drip (trickle) irrigation and system(s). Do not apply this product through any other type of irrigation systems.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension 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 is 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. Posting areas to be chemigated is required when:

a) 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 facilities not including public roads, or
b) 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 area. When there are no usual points of entry, signs must be posted in the corners of the treated areas and any other locations affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area 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 materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters of at least 2 ½ inches tall, and all letters and the symbol shall be in 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. This sign is in addition to any sign posted to comply with the Worker Protection Standard.

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

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of liquid back toward the injection. The pesticide injection pipeline must contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where the pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (i.e. 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.

When mixing, agitation is not necessary. Adjust the pH of the water to 7 or below. If using stickers, spreaders, insecticides, nutrients, etc., add **Agri-Life®** last. If compatibility is in question, use a compatibility jar test before mixing a whole tank. Because of a wide variety of possible combinations which can be encountered, observe all cautions and limitations on the label of all products used in the mixtures.

Agri-Life® may be added through a traveling system continuously or at the last 30 minutes of solid set or hand moved irrigation systems. **Agri-Life®** readily disperses and needs no agitation.

SPRINKLER AND DRIP (TRICKLE) CHEMIGATION

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from 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 pump (i.e. 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.

When mixing, agitation is not necessary. Adjust the pH of the carrier water to 7 or below. If using stickers, spreaders, insecticides, nutrients, etc., add the **Agri-Life®** last. If compatibility is in question, use a compatibility jar test before mixing a whole tank. Because of a wide variety of possible combinations which can be encountered, observe all cautions and limitations on the label of all products used in the mixtures.

Agri-Life® may be added through a traveling irrigation system or at the last 30 minutes of solid set or hand moved irrigation systems.
Agri-Life® readily disperses and needs no agitation.

FLOOD (BASIN), FURROW AND BORDER CHEMIGATION

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

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

a) 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 back flow.
b) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
c) 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.
d) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
e) 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.
f) Systems must use a metering pump, such as a positive displacement pump (i.e. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

When mixing, agitation is not necessary. Adjust the pH of the carrier water to 7 or below. If using stickers, spreaders, insecticides, nutrients, etc., add the **Agri-Life®** last. If compatibility is in question, use a compatibility jar test before mixing a whole tank. Because of a wide variety of possible combinations which can be encountered, observe all cautions and limitations on the labels of all products used on the mixtures. **Agri-Life®** may be added through a traveling irrigation system continuously or at the last 30 minutes of solid set or hand moved irrigation systems. **Agri-Life®** readily disperses and needs no agitation.

FOR SPRAY AND SOIL DRENCH APPLICATIONS

Always spray for total foliage coverage. When re-spraying, the rates and severity of the disease vary with unforeseen conditions. However, in the event of severe disease, spraying intervals can be shortened see 'Minimum Retreatment Interval' column for the shortest interval between applications. At times, lower rates can be as effective as higher rates and should be tried first. Usually, preventive programs may be maintained at lower rates. Use of low volume spraying is effective against Botrytis but not effective against established powdery mildew and Xanthomonas infections. Also, applications on actively growing tissue may be more effective than applications on dormant tissue.

MINIMUM SPRAY VOLUME (GALLONS) PER ACRE WHEN APPLYING Agri-Life®

	GROUND		
CROP	**AERIAL**	**DILUTE**	**CONCENTRATE†**
Citrus	10	125	30
Field Crops	3	20	30
Small Fruits	5	150	30
Tree Crops	10	400	50
Vegetables	3	20	30
Vines	5	150	30

†Pesticide application equipment such as Curtec™ or other similar sprayers which are capable of obtaining coverage at low volumes may be used as low as 20 gpa of spray volume.

The following specific directions are based on general application procedures. The Recommendations of the State Extension Service should be closely followed as to timing, frequency and numbers of sprays per season. Do not exceed the specified use rates or apply at different intervals than specified in the use directions.

FROST INJURY PROTECTION BACTERIAL ICE NUCLEATION INHIBITOR

Application of **Agri-Life®** made to all crops listed on this label at rates and stages of growth indicated on this label, at least 24 hours prior to anticipated frost conditions, will afford control of ice nucleating bacteria (*Pseudomonas syringae, Erwinia herbicola and Pseudomonas flourescens*) and may therefore provide some protection against light frost. Not recommended for those geographical areas where weather conditions favor severe frost.

APPLICATION DIRECTIONS

Pre-Application Dose Determination: For algae treatments, applicators should conduct initial dose determination tests simulating a full-scale treatment program to determine the minimum efficacious concentrations for eliminating the target species, unless an effective dose is already known for the given target pest population.

Maximum Annual Application Rates for Aquatic Uses in Impounded Waters, Ponds, Lakes, and Reservoirs:
Maximum annual application rate of 21.9 lbs. of metallic copper per acre-foot (8 applications per year at up to 1 ppm). This rate/frequency is calculated based on staggering the treatment of each half of the water body every 14 days (at a rate of 2.74 lbs. metallic copper per acre-foot = 1 ppm) for eight months (244 days). In situations where rapidly reproducing toxic algal species pose a public health threat to drinking or recreational water resources, applicators must receive authorization from applicable state, local or tribal water resources authorities to apply copper in excess of 21.9 lbs. of metallic copper per acre-foot (8 applications per year at up to 1 ppm).

For Large Bodies of Water Separated Into Sections (Water Management Units):
Maximum annual application rate of 46.6 lbs. of metallic copper per acre-foot per year (17 applications per year at up to 1 ppm). This rate/frequency is calculated based on the maximum number of possible applications allowed based on a 14-day minimum (at a rate of 2.74 lbs. metallic copper per acre-foot = 1 ppm) retreatment interval for eight months (244 days). Do not apply more than 46.6 lbs. of metallic copper to a water management unit, regardless of the pest(s) targeted by applications. In situations where rapidly reproducing toxic algal species pose a public health threat to drinking or recreational water resources, applicators must receive authorization from applicable state, local or tribal water resources authorities to apply copper in excess of 46.6 lbs. of metallic copper per acre-foot per year for a single water management unit.

FOR ALGAE AND BACTERIA* CONTROL IN IMPOUNDED WATERS, LAKES, PONDS, RESERVOIRS AND CANALS FOR IRRIGATION AND CHEMIGATION SYSTEMS:
Apply **Agri-Life®** for 3 acres or less by pouring directly into ponds, small lakes or reservoirs. **Agri-Life®** application for 3 acres or more should be applied at several points into ponds, lakes or reservoirs. Larger bodies of water can be treated through metering pump, dragging a feeder hose behind a boat across a body of water or dispensing via conventional spray equipment mounted to a boat, helicopter or airplane onto the surface. **Agri-Life®** will quickly diffuse throughout the water body in several hours, broad distribution will speed dispersal. No more than ½ of the body of water may be treated in a single application. For small ponds or for spot treatments around shoreline, such as on private piers and docks, apply **Agri-Life®** by directly pouring 2 fluid ounces per 125 cubic feet (¼ tsp or .0002 lbs. per 20 gallons) of water for 1 ppm of copper into the water around half of the perimeter of the body of water or at the spot to be treated. When applying from boat, use minimal speed to allow the prop wash to disperse and mix the product into the treated waters. Dispense up to 5.5 gallons or 2.72 lbs. per acre-foot of water (see use rate chart below). Apply in late spring or early summer when algae/bacteria* first appear. For best results, disperse **Agri-Life®** evenly to warm, still water on a sunny day when algae are near the surface. Several application points speed up dispersal.

For irrigation systems via slug delivery, maximum annual application rate is 13 lbs. metallic copper (26.26 gals. of Agri-Life) per year per 5 miles of conveyance. Apply copper into irrigation conveyance system or lateral at up to a maximum rate of 0.5 lbs. metallic copper (1.0 gals. of Agri-Life) per cubic foot per second of water per 5 to 30-mile treatment depending on water hardness, alkalinity and algae concentration. This method may only be used in constructed irrigation conveyance systems, laterals and aqueducts.

Use rates vary, depending on algae/bacteria* species, water hardness, water temperature, and amount of algae/bacteria* present; as well as whether water is clear, turbid, flowing or static. Preferably, the water should be clear with temperatures above 60°F (15.6° C). Higher dosages are required at lower

*Non-public health bacteria

water temperatures, higher algae/bacteria* concentrations, and for hard waters. Static water requires less chemical for algae/bacteria* control than does flowing water. Use higher dosages for chara, nitella, and filamentous algae (pond scum), and lower dosages for planktonic algae. If there is uncertainty about the dosage, begin with a lower dose and increase until control is achieved or until the maximum allowable level has been reached (see the use rate chart below).

USE RATES

Gallons of Product per acre/ft (lbs. Cu^{2+}/Acre Foot)	Equivalent Metallic Copper (ppm)
0.33 (.16 lbs.)	0.06
0.50 (.25 lbs.)	0.09
3.30 (1.63 lbs.)	0.60
5.50 gals. (2.72 lbs.)	1.00

Useful formulas for calculating water volume and flow rates:

To find the capacity of water storage containment in gallons:
Multiply the water volume in cubic feet times 7.5
Note: 1 Cubic Foot per Second of Flow = 27,000 gallons per hour
1 Acre Foot = 326,000 gallons

CONTROL OF ALGAE / BACTERIA* IN LIVESTOCK WATERING PONDS, TANKS AND TROUGHS AND DRIP SYSTEMS IN LIVESTOCK WATERING TANKS:

Stock watering ponds, tanks, and troughs:
For the control of algae/bacteria* in stock water ponds, tanks, and troughs, add ¼ tsp. or .0002 lbs. of **Agri-Life®** to 30 gallons of water for a final ppm of 0.7 ppm. Do not exceed 1 ppm (¼ tsp. or .0002 lbs. per 20 gallons). Apply by boat or from side of pond at equal intervals or directly to tanks or troughs.

For drip-system use in livestock watering tanks:
Tanks fed by a continuous flow of spring or well water may be equipped with a chemical drip-system designed to meter-in **Agri-Life®** based upon water flow rates. Systems should be adjusted to maintain a concentration of 0.7 ppm copper in incoming stock water (0.15 fl. oz. of product per minute to a water flow of 100 gallons per minute). Treat continuously or as needed to control and prevent algae re-growth.

IN NON-SPRINKLER, NON-DRIP IRRIGATION CONVEYANCE SYSTEMS AND CHEMIGATION SYSTEMS, DITCHES, CANALS, AND SIMILAR OPEN IRRIGATION CONVEYANCES:
For continuous addition, add 2 fl. oz. per hour of **Agri-Life®** for each 1,000 gallons of water per hour. For conveyance systems longer than 30 miles, dispense this rate among injection points every 30 miles. Do not exceed the total dosage of 1 Gallon **Agri-Life®** in 60,000 gallons of water (1 ppm metallic copper).

When using the slug application method, the maximum annual application rate of 13 lbs. metallic copper (26.26 gals. of Agri-Life) per year per 5 miles of conveyance. Apply copper into irrigation conveyance system or lateral at up to a maximum rate of 0.5 lbs. metallic copper (1.0 gals of Agri-Life) per cubic foot per second of water per 5 to 30-mile treatment depending on water hardness, alkalinity and algae concentration. This application method may only be used in constructed irrigation conveyance systems, laterals and aqueducts.

TO CONTROL ALGAE OR BACTERIA* IN SPRINKLER, DRIP OR OTHER TYPES OF CLOSED IRRIGATION EQUIPMENT:
Use 1 pint of **Agri-Life®** per 7,500 to 300,000 gallons of water. Agitation is not required. Do not mix with basic substances.
Agri-Life® must be applied continuously for the duration of the water application.

EXAMPLE CALCULATION
CHEMIGATION AND IRRIGATION FLOW RATES
(0.06 ppm Cu^{2+})

Water Flow Rate gallons per minute (gpm) per acre/ft.	Water Flow Rate cubic feet per minute (cfm)	Dosage Rate ppm Metallic Cu^{2+}	Agri-Life® fl. oz./min	Feeder Pump Setting Agri-Life® mL/min
3,000	400	0.06	0.4	11.8
6,000	800	0.06	0.8	23.6
9,000	1,200	0.06	1.1	32.5
12,000	1,600	0.06	1.5	44.3

*Non-public health bacteria

CHEMIGATION AND IRRIGATION FLOW RATES
(1.0 ppm Cu^{2+})

Water Flow Rate gallons per minute (gpm) per acre/ft.	Water Flow Rate cubic feet per minute (cfm)	Dosage Rate ppm Metallic Cu^{2+}	Agri-Life® fl. oz./min	Feeder Pump Setting Agri-Life® mL/min
3,000	400	1.0	6.4	189.3
6,000	800	1.0	12.8	378.5
9,000	1,200	1.0	19.1	564.8
12,000	1,600	1.0	25.5	754.1

BIOLOGICAL FISH PONDS AND AQUACULTURE SYSTEMS:
Before treating ponds containing fish with **Agri-Life®**, measure total alkalinity (not hardness or pH). The toxicity of copper to fish increases as the total alkalinity decreases. Sensitivity to copper varies between fish species. For copper sensitive species, do not exceed 0.06 ppm metallic copper. When algae concentrations are high, to avoid suffocation of fish after treatment, either treat in a series of smaller doses over time or have emergency aeration available. Apply at the rate of 1/4 to 1/2 gallon of **Agri- Life®** per acre foot (326,000 gallons) of water to yield concentrations ranging from 0.05 ppm to .09 ppm metallic copper, respectively.
Metallic copper concentration is directly proportional to amount of **Agri-Life®** added per acre foot. A maintenance dose of 4 to 8 ounces per acre foot may be used every 14 days. The rate is dependent on water temperature, fish density arid the degree of suppression targeted.

Computation for Aquacultural Ponds of Amount of Agri-Life® Applied to One Acre Foot (12 Inches Deep)		
Gallons (lbs. Cu^{2+}/A) Agri-Life®	**Gallons Water**	**Copper ppm**
0.25 (0.123)	326,000	0.05
0.50 (0.247)	326,000	0.09
0.63 (0.31)	326,000	0.11

For use in controlling algae in catfish ponds, copper can be applied throughout the spring and summer when water temperatures are consistently above 70° F when total alkalinity and hardness concentrations fall between 100 and 300 mg/L as $CaCO_3$.
Applications are no longer needed in the fall after fish are harvested or the average water temperatures fall below 70°F. Apply mid-morning at a rate of 0.31 lbs. metallic copper per acre-foot (0.11 ppm metallic copper). Use copper only if you plan to harvest fish before fall and anticipate problems with off-flavoring algae. Do not make routine copper treatments for algae control in fingerling ponds or in broodfish ponds because off-flavors are not a problem in those fish. Do not use this treatment regimen in waters of low hardness and alkalinity (less than 50 ppm as $CaCO_3$) because copper may stress or kill fish.

TO CONTROL ALGAE IN RICE (Domestic and Wild) FIELDS: Application should be made when algae have formed on the soil surface in the flooded field. Applications are most effective when made prior to the algae's leaving the soil surface and rising to the water surface. Depending on water depth, 1 quart to 1 gallon per acre is normally sufficient. Use the lower rate at minimum water depth and the higher rate at maximum water depth. Higher use rates are acceptable, but never use more than 1ppm metallic copper. The maximum use rate per acre should be determined by the water depth, as shown in the table below, and flow. Agri-Life can be metered into the rice field as water is being applied or slug fed into each paddy when water is being held. The maximum annual application rate must be no greater than 5.48 lbs. of metallic copper per acre-foot per for control of algae control in water-seeded rice.

Water depth (inches)	Maximum application rate (gallons/A)
2	0.9
3	1.35
4	1.8
5	2.25
6	2.7

TO CONTROL TADPOLE SHRIMP IN RICE (Domestic and Wild) FIELDS: Application should be made to the flooded fields any time the pest appears from planting time until the seedlings are well rooted and have emerged through the water. Depending on depth, 1-4 gallons per acre is normally sufficient. Use the lower rate at minimum water depth and the higher rate at maximum water depth. Higher use rates are acceptable, but never use more than 2.5 ppm metallic copper.
Maximum use rate per acre should be determined by the water depth, as shown below. The maximum annual application rate must be no greater than 13.7 lbs. of metallic copper per acre-foot per year for control of tadpole shrimp.

For simultaneous control of both tadpole shrimp and algae: The maximum annual application rate must be no greater than 13.7 lbs. of metallic copper per acre-foot per year.

Water depth (inches)	Maximum application rate (gallons/A)
2	2.25
3	3.4
4	4.5
5	5.6
6	6.75

For aerial applications, ensure all aircraft mounted components used to hold or distribute and spray **Agri-Life®** are constructed of materials outlined in the Application and Handling section (see pg. 4) of this label. Never use materials for this application which are inconsistent with this labeling. Ensure all distribution connections are tight and free of leaks. Failure to follow these instructions could result in the compromise of air frame integrity. In this case air frame failure could result. See the Spray Drift Management section (see pg. 5) of this label for further restrictions on spraying **Agri-Life®**

FOR CONTROL OF LISTED PLANT DISEASES IN FOOD AND NON-FOOD CROPS, TROPICAL PLANTS, ANNUAL / PERENNIAL PLANTS, POTTED FLOWERING PLANTS, SCHRUBS AND VINES, TREES AND TURFGRASS IN NURSERIES, GREENHOUSES AND FIELDS:
Refer to the tables below for: crop, disease, application rate/acre range per application and maximum allowable load per growing season per acre, minimum treatment interval and application directions.

Agri-Life® contains 5% of metallic copper.
Agri-Life® contains 0.495 pounds of metallic copper per gallon. The pre-harvest interval (PHI) for **Agri-Life®** is 0 days.

CITRUS
Grapefruit, Kumquat, Lemon, Lime, Orange, Pomelo, Tangelo and Tangerine
Maximum annual rate for citrus is 25.45 gals of product (12.6 lbs. of metallic copper).

Disease	Rate/A fl. oz. (lbs. Cu^{2+}/A)	Minimum Treatment Interval (days)	Directions
Alternaria brown rot	30 to 70 (.116 to .271)	7	Apply at first indication of rain or first appearance of Brown Rot.
Greasy spot, Pink pitting	25.6 to 64 (.099 to .248)	7	Apply during mid-summer.
Scab	25.6 to 64 (.099 to .248)	7	Apply shortly before trees begin to flush. Re-apply At ⅔ petal fall. Re-apply four weeks later if necessary
Melanose *(Diaporthe citri)*	12.8 to 64 (.049 to .248)	7	Apply two times per year (applications must be 7 days apart) before onset of spring and autumn rains.
Citrus canker (*Xanthomonas citri*) (Suppression)	12.8 to 64 (.049 to .248)	7	Spray flushes 7 to 14 days after shoots begin to grow. Young fruit may require additional applications. Number and timing of applications will be dependent on disease pressure. Under heavy pressure, each new flush of growth should be sprayed. Heavily infected trees should be sprayed with a minimum concentration of 250 ppm with a follow up spray after 7-14 days.

*Non-public health bacteria

FIELD CROPS

Crop and Maximum Annual Rate of Product in Gallons per Acre (lbs. Metallic Copper)	Disease	Rate/A fl. oz. (lbs. Cu^{2+}/A)	Minimum Treatment Interval (days)	Directions
Alfalfa 2.26 gals. (1.12 lbs.)	*Cercospora* leaf spot, *Leptosphaerulina* leaf spot	19.2 to 32 (.074 to .124)	30	Apply 30 days before each harvest or earlier if disease threatens. Note: Spray injury may occur with sensitive varieties such as Lahontan.
Cereal Grains (Barley, Wheat, Oats) 2.14 gals. (1.06 lbs.)	Blotch, *Helminthosporium* spot, *Septoria* leaf blotch	19.2 to 25.6 (.074 to.10)	10	Make first application at early heading and follow with a second spray 10 days later. Use the higher rates when conditions favor disease.
Peanut 9.57gals. (4.74 lbs.)	*Cercospora* leaf spot, Foliar diseases of peanut	19.2 to 25.6 (.074 to .10)	7	Begin spraying at 35 to 40 days after planting or when disease symptoms first appear and repeat at 7 to 14 day intervals during humid weather. Use the higher rates when conditions favor disease.
Potato 50.50 gals. (25.0 lbs.)	Early blight (*Alternaria solani*), Late blight *Phytophthora infestans*), Grey mold (*Botrytis cinerea*), Dry rot (*Sclerotium rolfsii*)	19.2 to 32 (.074 to .124)	5	Apply at 5 to 10 day intervals starting when plants are 2 to 6 inches high in locations where disease is light. Apply up to 32 fl. oz. per acre when disease is more severe.
Sugar Beet 15.87 gals. (7.86 lbs.)	*Cercospora* leaf spot	19.2 to 57 (.074 to .221)	10	Begin applications when conditions first favor disease development and repeat at 10 to 14 day intervals. Use higher rates when conditions favor disease. (Addition of a sticker/spreader is recommended.)

SMALL FRUITS

Crop and Maximum Annual Rate of Product in Gallons per Acre (lbs. Metallic Copper)	Disease	Rate/A fl. oz. (lbs. Cu^{2+}/A)	Minimum Treatment Interval (days)	Directions
Blackberry (Aurora, Boysen,Cascade, Chehalem, Logan, Marion, Santiam, Thornless Evergreen) 20.20 gals. (10 lbs.)	Anthracnose, Cane spot, Leaf spot, Pseudomonas blight, Purple blotch, Yellow rust	32 (.124)	7	Make fall application after harvest, Apply delayed dormant spray after pruning/training in the spring. If needed, agricultural type spray oil may be added.
	Leaf spot, Purple blotch	19.2 (.074)	7	Apply when leaf buds begin to open and repeat when flower buds show white. If needed, agricultural- type spray oil may be added. Note: Crop injury may occur in environmental conditions such as hot or prolonged moist periods. Discontinue applications if signs of crop injury appear.

(continued)

SMALL FRUITS *(cont.)*

Crop and Maximum Annual Rate of Product in Gallons per Acre (lbs. Metallic Copper)	Disease	Rate/A fl. oz. (lbs. Cu^{2+}/A)	Minimum Treatment Interval (days)	Directions
Blueberry 16.96 gals. (8.4 lbs.)	Bacterial canker	33 to 51.2 (.128 to .198)	7	Make application before fall rains and a second application 4 weeks later. Use the higher rates when conditions favor disease.
Cranberry	Fruit rot	51.2 (.198)	7	Make application in late bloom. Apply one or two additional applications at 7 to 14 day intervals depending on disease severity.
	Rose bloom	51.2 (.198)	7	Apply three sprays on 7 to 14 day schedule as soon as symptoms are observed.
	Bacterial stem canker	51.2 (.198)	7	Apply post-harvest and again in spring at bud swell. Apply one or two additional applications at 7 to 14 day intervals depending on disease severity.
25.45 gals. (12.6 lbs.)	Leaf blight, Red leaf spot, Stem blight, Tip blight (*Monilinia*)	51.2 (.198)	7	Apply delayed dormant spray the spring. Repeat at 7 to 14 day intervals through pre-bloom.
Currant, Gooseberry (Ribes) 32.32 gals. (16 lbs.)	Anthracnose, Leaf spot	64 (.248)	10	Make initial application after first leaves have expanded. Continue on a 10 to 14 day schedule during wet conditions in the spring. Make an additional application after harvest.
Raspberry	Anthracnose, Cane spot, Leaf spot, Pseudomonas blight, Purple blotch, Yellow rust	32 (.124)	7	Make fall application after harvest. Apply delayed dormant spray after training in the spring. If needed, agricultural-type spray oil may be added.
20.20 gals. (10 lbs.)	Anthracnose, Cane spot, Leaf spot, Purple blotch, Yellow rust	19.2 (.074)	7	Apply when leaf buds begin to open and repeat when flower buds show white. If needed, agricultural-type spray oil may be added. Note: Crop injury may occur if applied to foliage under certain environmental conditions such as hot or prolonged moist periods. Discontinue applications if signs of crop injury appear.
Strawberry 12.12 (6 lbs.)	Angular leaf spot (*Xanthomonas*), Leaf blight, Leaf scorch, Leaf spot	19.2 to 25.6 (.074 to .10)	7	Begin application when plants are established and continue on a weekly schedule throughout the season. Minimum retreatment interval is seven days. Apply in at least 20 gallons of water. Use the higher rates when conditions favor disease. Note: Discontinue applications if signs of crop injury appear.

TREE CROPS

Crop and Maximum Annual Rate of Product in Gallons per Acre (lbs. Metallic Copper)	Disease	Rate/A fl. oz. (lbs. Cu^{2+}/A)	Minimum Treatment Interval (days)	Directions
Almond, Apricot, Cherry, Plum, Prune 36.36 gals. (18 lbs.)	Bacterial Blast (*Pseudomonas*), Bacterial canker, Blossomcherry brown rot, Coryneum blight (Shot Hole)	51.2 to 64 (.198 to .248) on Almond, all others 60 to 90 (.232 to .348)	7	Make first application before fall rains and a second at late dormant. Use higher rates when conditions favor disease. If needed, agricultural-type spray oil may be added. For Cherries: Where disease is severe, an additional application shortly after harvest may be required. Note: Foliar injury may occur from post-bloom sprays on almonds, especially on Ne Plus varieties.
Apple	Anthracnose, Blossom blight, European canker (*Nectria*), Shoot blast (*Pseudomonas*)	51.2 to 64 (.198 to .248)	N/A only one application permitted per season.	Apply before fall rains. Use the higher rates when conditions favor disease. Note: Use on yellow varieties may cause discoloration. To avoid discoloration, pick before spraying.
	Apple scab, Fire blight, Phytophthora root rot, Verticillium wilt	51.2 to 64 (.198 to .248)	N/A only one application permitted per season.	Make one application between silver-tip and green-tip. Apply as a full cover spray for early season disease suppression. Note: Moderate to severe crop injury may occur from late application; discontinue use when green-tip reaches 1/2 inch.
	Apple scab	19.2 to 25.6 (.074 to .10)	5	Extended spray schedule where fruit finish is not a concern. Continued applications may be made at 5 to 7 day intervals between ½ inch green-tip and first cover spray. Note: Moderate to severe crop injury may result from this extended spray schedule. It is not intended for fresh market apples or for apples where fruit finish is a concern as it is likely to cause fruit russeting.
	Fire blight	19.2 to 25.6 (.074 to .10)	5	
32.32 gals. (16 lbs.)	Collar rot, Crown rot	32 (.124)	N/A only one application permitted per season.	Apply as a drench on the lower trunk area of each tree. Apply in early spring or in fall after harvest for best results. Do not apply to foliage or fruit. Only one application per year.
Avocado 38.18 gals. (18.9 lbs.)	Anthracnose, Blotch	51.2 to 64 (.198 to .248)	14	Apply when bloom buds begin to swell and continue application at bi-monthly intervals for five to six applications. Use the higher rates when conditions favor disease.
Banana	Sigatoka (Black and Yellow)	19.2 (.074)	7	Apply by air in 3 gallons of water. If needed, agricultural-type spray oil may be added. Apply on a 7 to 14 day schedule throughout the wet season. Apply at 21 day intervals during dry periods.
38.17 gals. (18.9 lbs.)	Black pitting	32 (.124)	7	Mix product in 100 gallons of water. Apply by spray to the fruit stem and the basal portion of the leaf crown. Apply during the first and second weeks after fruit emergence.
Cacao 31.81 gals. (15.75 lbs.)	Black pod	19.2 to 64 (.074 to .248)	14	Begin applications at the start of the rainy season and continue while infection conditions persist.

(continued)

TREE CROPS *(cont.)*

Crop and Maximum Annual Rate of Product in Gallons per Acre (lbs. Metallic Copper)	Disease	Rate/A fl. oz. (lbs. Cu^{2+}/A)	Minimum Treatment Interval (days)	Directions
Coffee	Coffee berry disease (*Collectotrichum coffeanum*)	38.4 to 64 (.149 to .248)	14	Apply first spray after flowering and before onset of long rains and then at 14 to 28 day intervals until picking. Use the higher rates when conditions favor disease.
	Bacterial blight (*Pseudomonas syringae*)	38.4 to 64 (.149 to .248)	14	Begin spray program before the onset of long rainy periods and continue throughout the rainy season at 14 to 21 day intervals. The critical time for spraying to control disease is just before, during and after flowering(s), especially when coinciding with wet weather. Use the higher rates when rainfall is heavy and disease pressure is high.
	Leaf rust (*Hemileia vastatrix*)	19.2 to 32 (.074 to .124)	14	Apply before the onset of rain and then at 14 to 21 day intervals while the rains continue. Use the higher rates when rainfall is heavy and disease pressure is high.
25.45 gals. (12.6 lbs.)	Iron Spot (*Cercospora coffeicola*), Pink Disease (*Corticium almonicolor*)	19.2 (.074)	14	Use concentrate or dilute spray. Begin treatment at the start of wet season and continue at monthly intervals for three applications.
Mango 96.96 gals. (48 lbs.)	Anthracnose	38.4 to 64 (.149 to .248)	7	Apply bi-monthly after fruit set until harvest. Use higher rates when rainfall is heavy and disease pressure is high.
Olive 36.36 gals. (18 lbs.)	Leaf spot, Olive knot, Peacock spot,	52 to 86 (.201 to .333)	30	Make first application before winter rains begin. A second application in early spring should be made if disease is severe. Apply the higher rates for heavy disease pressure or when conditions favor disease development.
Papaya 42.82 gals. (21.2 lbs.)	Anthracnose	26 to 52 (.101 to .201)	7	Apply before disease appears. Repeat at 10 to 14 day intervals under light disease pressure. Shorten spray intervals to 7 days under heavy disease pressure. Addition of a spreader is desirable. Use the higher specified rates when disease is severe.
Persimmon 11.11 gals. (5.5 lbs.)	Canker	16 (.062)	14	Apply every 14 days after beginning of fruit set until harvest.
Pear	Blossom blight (Pseudomonas)	19.2 (.074)	7	Apply before Fall rains and again during dormancy before Spring growth starts.
12.12 gals. (6 lbs.)	Fire blight	19.2 (.074)	5	Apply at 5 day intervals throughout the bloom period. Note: Russeting may occur in copper sensitive varieties. Excessive dosages may cause fruit russet on any variety.
Pecan 12.72 gals. (6.3 lbs.)	Kernel rot, Shuck rot (*Phytophthora cactorum*), Zonate leaf spot (*Cristulariella pyamidalis*)	19.2 to 32 (.074 to .124)	14	For suppression, apply in sufficient water to ensure complete spray coverage at 2 to 4 week intervals starting at kernel growth and continue until shucks open. Use the higher rates and shorter spray intervals if frequent rainfall occurs.

(continued)

TREE CROPS *(cont.)*

Crop and Maximum Annual Rate of Product in Gallons per Acre (lbs. Metallic Copper)	Disease	Rate/A fl. oz. (lbs. Cu^{2+}/A)	Minimum Treatment Interval (days)	Directions
Pistachio 16.96 gals. (8.4 lbs.)	Botryosphaeria Panicle and Shoot blight, Late blight (*Alternaria alternata*), Septoria leaf blight	32 to 64 (.124 to .248)	14	Make initial application at bud swell and repeat on a 14 to 28 day schedule. If disease conditions are severe, use the higher rates and shorter spray intervals.
Quince 32.32 gals. (16 lbs.)	Fire blight	19.2 (.074)	5	Apply at 5 day intervals throughout the bloom period. Apply in adequate water for thorough coverage.
Walnut 64.64 gals. (32 lbs.)	Walnut blight	38.4 to 64 (.149 to .248)	7	Apply at first spray at early pre-bloom prior to or when catkins are partially expanded. Make additional applications during bloom and early nutlet stage or as needed when frequent rainfall or extended periods of moisture occur. Thorough coverage of catkins, leaves and nutlets is essential for effective control. Note: Adequate control may not be obtained when copper tolerant species of *Xanthomonas* bacteria are present.

VEGETABLES
(Non-Leafy and Leafy)

Crop and Maximum Annual Rate of Product in Gallons per Acre (lbs. Metallic Copper)	Disease	Rate/A fl. oz. (lbs. Cu^{2+}/A)	Minimum Treatment Interval (days)	Directions
Asparagus 10.10 gals. (5.0 lbs.)	Rust (*Puccinia asparagi*)	16 (.062)	10	Begin applications when conditions first favor disease development and repeat at 10 to 14 day intervals.
Bean (Dry, Green) 9.57 gals. (4.74 lbs.)	Brown spot, Common blight, Halo blight	19.2 to 25.6 (.074 to .10)	7	For protective sprays, make first application when plants are 6 inches high; repeat on a 7 to 10 day schedule depending on environmental conditions. Use the higher rates for more severe disease.
Beet (Beet Greens) 15.87 gals. (7.86 lbs.)	*Cercospora* leaf spot, Downey mildew, Leaf blight	19.2 to 32 (.074 to .124)	10	Begin applications when conditions first favor disease development and repeat at 10 to 14 day intervals. Use the higher rates when conditions favor disease.
Carrot 10.10 gals. (5 lbs.)	*Alternaria* leaf spot, *Cercospora* leaf spot	19.2 (.074)	7	Begin applications when disease first threatens and repeat at 7 to 14 day intervals depending on disease severity.
Celery, Celeriac 10.70 gals. (5.3 lbs.)	*Cercospora*, early blight, *Septoria* late blight	19.2 (.074)	7	Begin applications as soon as plants are first established in the field, repeating at 7 day intervals depending on disease severity and environmental conditions.

(continued)

VEGETABLES *(cont.)*
(Non-Leafy and Leafy)

Crop and Maximum Annual Rate of Product in Gallons per Acre (lbs. Metallic Copper)	Disease	Rate/A fl. oz. (lbs. Cu^{2+}/A)	Minimum Treatment Interval (days)	Directions
Crucifers (Broccoli, Brussel Sprout, Cabbage, Cauliflower, Collard Greens, Mustard Greens, Turnip Greens) 5.35 gals. (2.65 lbs.)	Black leaf spot (*Alternaria*) Black rot, Downy mildew	19.2 to 25.6 (.074 to .10)	7	Begin application after transplants are set in the field or shortly after emergence of field seeded crops or when conditions favor disease development. Use the higher rates when conditions favor disease. Note: Reddening of older leaves may occur on Broccoli and a flecking of wrapper leaves may occur on cabbage.
Cucurbits (Cantaloupe, Cucumber, Honeydew, Muskmelon, Pumpkin, Squash,Watermelon 10.61 gals. (5.25 lbs.)	*Alternaria* leaf spot, Angular leaf spot, Anthracnose, Downey mildew, Gummy stem blight, Powdery mildew, Watermelon bacterial fruit blotch (Suppression)	19.2 to 25.6 (.074 to .10)	5	Begin applications prior to disease development and continue while conditions are favorable for disease development. Repeat at 5 to 7 day intervals. Use the higher rates when conditions favor disease. Note: crop injury may occur from application at higher rates and shorter intervals. Discontinue use if injury occurs.
Eggplant 15.95 gals. (7.9 lbs.)	*Alternaria* Blight, Anthracnose, Phomopsis	19.2 (.074)	7	Begin applications prior to development of disease symptoms. Repeat sprays at 7 to 10 day intervals depending on disease severity.
Okra 10.61 gals. (5.25 lbs.)	Anthracnose, Bacterial leaf spot, *Fusarium* wilt, Leaf spots, Podspot, Powdery mildew	19.2 to 32 (.074 to .124)	5	Begin treatment when disease first threatens and repeat every 5 to 10 days depending on disease severity. Use the higher rates and shorter spray intervals when conditions favor disease.
Onion, Garlic 12.12 gals. (6 lbs.)	Bacterial blight, Downy Mildew, Purple blotch	19.2 (.074)	7	Begin when plants are 4 to 6 inches high and repeat at weekly intervals. Minimum retreatment interval is seven days. Use the higher rates when conditions favor disease.
Pea 7.97 gals. (3.95 lbs.)	Powdery mildew, Downey mildew, Leaf spot	19.2 to 25.6 (.074 to .10)	7	Begin application when disease symptoms first appear and repeat at weekly intervals. Minimum retreatment interval is seven days. Use the higher rates when conditions favor disease.
Pepper 23.93 gals. (11.85 lbs.)	Anthracnose, Bacterial spot,	15.6 to 30 (.060 to .116)	3	Begin application when conditions favor disease development and repeat at 3 to 10 day intervals depending on disease severity. Use the higher rates when conditions favor disease.
Soybean 9.57 gals. (4.74 lbs.)	Blight	12.6 (.049)	7	For protective sprays, make first application when plants are 6 inches high; repeat on a 7 to 10 day schedule depending on environmental conditions.
Spinach 7.97 gals. (3.95 lbs.)	Anthracnose, Blue mold, *Cercospora* leaf spot, White rust, Downey mildew	19.2 to 25.6 (.074 to .10)	7	Begin application when disease first appears or when conditions favor disease development. Repeat at 7 to 10 day intervals. Use the higher rates when conditions favor disease Note: Flecking may occur in spinach leaves.

(continued)

VEGETABLES *(cont.)*
(Non-Leafy and Leafy)

Crop and Maximum Annual Rate of Product in Gallons per Acre (lbs. Metallic Copper)	Disease	Rate/A fl. oz. (lbs. Cu^{2+}/A)	Minimum Treatment Interval (days)	Directions
Tomato (for Fresh Market) 16.16 gals. (8 lbs.)	Anthracnose, Bacterial spot, Bacterial speck, Early blight, Gray leaf mold, Late blight, Septoria leaf spot	25.6 (.10)	3	Begin applications when disease first appears and repeat at 3 to 10 day intervals depending on disease severity.
Tomato (for Processing) 35.14 gals. (17.4 lbs.)	Anthracnose, Bacterial spot, Bacterial speck, Early blight, Gray leaf mold, Late blight, Septoria leaf spot	19.2 to 32 (.074 to .124)	3	Begin applications when disease and repeat at 3 to 10 day intervals depending on disease severity. Use the higher rates when conditions favor disease.
Watercress 4.28 gals. (2.12 lbs.)	*Cercospora* leaf spot	19.2 (.074)	7	Production fields must be drained of water at least 24 hours prior to each application and water must not be reapplied to the field for a minimum of 24 hours following each application. Copper must not to be applied to watercress during the aquatic production phase. Begin application when plants are first established in the field, repeating at 7 to 14 day intervals depending on disease severity. Do not exceed four applications per year. Apply using ground spray equipment at no less than 50 gallons of spray solution per acre.

VINES

Crop and Maximum Annual Rate of Product in Gallons per Acre (lbs. Metallic Copper)	Disease	Rate/A fl. oz. (lbs. Cu^{2+}/A)	Minimum Treatment Interval (days)	Directions
Grape 40.40 gals. (20 lbs.)	Black rot, Downy mildew, Phomopsis, Powdery mildew	19.2 to 32 (.074 to .124)	3	Begin applications at bud break with subsequent applications throughout the season depending on disease severity. Use the higher rates when conditions favor disease. Note: Foliage injury may occur on copper sensitive varieties such as Concord, Delaware, Niagara and Rosette.
Hops 5.35 gals. (2.65 lbs.)	Downy mildew	19.2 (.074)	10	Make crown treatments after pruning, but before training. Additional treatments are needed on 10 day intervals. Note: Discontinue use two weeks before harvest.
Kiwi 12.72 gals. (6.3 lbs.)	*Erwinia herbicola, Pseudomonas flourescens, Pseudomonas syringae*	38.3 (.148)	30	Apply with 200 gallons of water per acre. Make applications in a monthly basis. A maximum of three applications may be made per 12 month period.

MISCELLANEOUS

Crop and Maximum Annual Rate of Product in Gallons per Acre (lbs. Metallic Copper)	Disease	Rate/A fl. oz. (lbs. Cu^{2+}/A)	Minimum Treatment Interval (days)	Directions
Chives 5.35 gals. (2.65 lbs.)	Downy mildew	19.2 (.074)	7	Begin application when plants are established in the field. Repeat every 7 to 10 days depending on disease conditions.
Dill 7.97 gals. (3.95 lbs.)	*Phoma* Leaf spot, *Rhizoctonia* foliage blight	19.2 to 25.6 (.074 to .10)	7	Begin application when plants are first established in the field and repeat at 7 to 10 day intervals depending on disease severity and environmental conditions. Use the higher rates for severe disease.
Ginseng 10.61 gals. (5.25 lbs.)	*Alternaria* leaf blight, Stem blight	16.8 (.065)	7	Begin application when plants are first established in the field and repeat at 7 to 10 day intervals depending on disease severity and environmental conditions.

ORNAMENTALS

Spray foliage thoroughly for good coverage. Re-application rates and intervals can vary according to disease severity and adversity of environmental conditions. Lower rates may be as effective as higher rates and should be tried first. Routine preventive programs may be maintained using lower rates.

Use of low volume equipment is effective against Botrytis but may not be effective against established Powdery mildew and/or Xanthomonas infections.

Applications on actively growing tissues may be more effective than applications on dormant tissues.

USE PRECAUTION

- Rates above 15 fluid ounces (.058 lbs. metallic copper) of this product per 100 gallons of water may damage some tender, open blooms.

USE RESTRICTIONS

- **On Easter Lilies**, do not apply more than 2.5 pounds of copper [646.4 fl. ozs. (5.05 gals.) of this product] per acre per application. Do not apply more than 75 pounds of copper (151.51 gals. of this product) per acre per year. Minimum retreatment interval is 7 days. Do not apply any additional pesticide containing copper to this land for 36 months.

- **On All Other Ornamentals**, do not apply more than 2 pounds of copper [512 fl. ozs. (4.00 gals.) of this product] per acre per application. Do not apply more than 20 pounds of copper (40.4 gals. of this product) per acre per year. Minimum retreatment interval is 7 days.

ANNUAL AND PERENNIAL BEDDING PLANTS

Plant	Disease(s) / Pathogens	Agri-Life® fl. oz./100 gals. (lbs. Cu^{2+}/100 gals)
Alyssum	Botrytis, Downy mildew	13 to 20 (.050 to .078)
Begonia	Botrytis	13 to 20 (.050 to .078)
	Powdery mildew, Xanthomonas	15 to 30 (.058 to .116)
Chrysanthemum	Botrytis, Pseudomonas	15 to 25 (.058 to .097)
Daylily	Powdery mildew	15 to 25 (.058 to .097)
Fuchsia	Botrytis	13 to 20 (.050 to .078)
	Powdery mildew	13 to 25 (.050 to .097)
Geranium	Botrytis, Rust (Preventative)	15 to 20 (.058 to .078)
	Preventative: Pseudomonas, Xanthomonas	15 to 45 (.058 to .174)
	Theraputic: Pseudomonas, Xanthomonas	50 (.194)
	Theraputic: Rust	25 to 40 (.097 to .155)
Impatiens	Alternaria	15 to 35 (.058 to .136)
	Botrytis	13 to 15 (.050 to .058)
	Phytophthora	15 to 20 (.058 to .078)
	Powdery mildew	13 to 25 (.050 to .097)
	Pseudomonas	15 to 35 (.058 to .136)
Lisianthus	Botrytis	13 to 20 (.050 to .078)
	Erwina, Pseudomonas, Xanthomonas	13 to 25 (.050 to .097)
New Guinea Impatiens	Botrytis	13 to 15 (.050 to .058)
	Powdery mildew	13 to 20 (.050 to .078)
Pansy	Botrytis	13 to 20 (.050 to .078)
	Phytophthora	15 to 20 (.058 to .078)
Periwinkle	Botrytis	13 to 20 (.050 to .078)
	Phytophthora	15 to 20 (.058 to .078)
Ranunculus	Powdery mildew	15 to 25 (.058 to .097)

(continued)

ANNUAL AND PERENNIAL BEDDING PLANTS *(cont.)*

Plant	Disease(s) / Pathogens	Agri-Life® fl. oz./100 gals. (lbs. Cu^{2+}/100 gals)
Snapdragon	Botrytis	13 to 20 (.050 to .078)
	Downy mildew, Rust	13 to 25 (.050 to .097)
Zinnia	Botrytis	13 to 20 (.050 to .078)
	Powdery mildew	15 to 30 (.058 to .116)
	Pseudomonas, Xanthomonas	13 to 25 (.050 to .097)
Additional annuals and perennials [1]	Powdery mildew	15 to 25 (.058 to .097)

[1] Additional annuals and perennials include Aster, Dahlia, Delphinium, Primrose, Salvia, Verbena, Veronica Vinca.

NURSERY PLANTS

Plant	Disease(s) / Pathogens	Agri-Life® fl. oz./100 gals. (lbs. Cu^{2+}/100 gals)
Dogwood	Powdery mildew	20 to 30 (.078 to .116)
	Botrytis	13 to 25 (.050 to .097)
Hydrangea	Botrytis, Powdery mildew	13 to 25 (.050 to .097)
Indian Hawthorn	Botrytis	13 to 25 (.050 to .097)
	Entomosporium	15 to 30 (.058 to .116)
Japanese Maple	Botrytis	13 to 25 (.050 to .097)
	Pseudomonas, Venticillium	15 to 25 (.058 to .097)
Lilac	Botrytis, Pseudomonas	13 to 25 (.050 to .097)
	Powdery mildew	15 to 25 (.058 to .097)
Rhododendron	Botrytis	13 to 25 (.050 to .097)

POTTED FLOWERING PLANTS

Plant	Disease(s) / Pathogens	Agri-Life® fl. oz./100 gals. (lbs. Cu^{2+}/100 gals)
Azalea	Botrytis	13 to 15 (.050 to .058)
Calla Lily	Botrytis, Erwina	13 to 20 (.050 to .078)
Chrysanthemum	Botrytis, Crown gall, Erwina, Powdery mildew	15 to 25 (.058 to .097)
Cyclamen	Botrytis	15 to 20 (.058 to .078)
	Erwina	15 to 20 (.058 to .078)
Daffodil	Botrytis	13 to 20 (.050 to .078)
Easter Lily	Botrytis	13 to 20 (.050 to .078)
Gerbera	Botrytis, Powdery mildew	15 to 25 (.058 to .097)
Hydrangea	Botrytis	13 to 25 (.050 to .097)
	Powdery mildew	12 to 25 (.047 to .097)
Kalanchoe	Botrytis	15 to 25 (.058 to .097)
	Erwina, Powdery mildew	15 to 35 (.058 to .136)

(continued)

POTTED FLOWERING PLANTS *(cont.)*

Plant	Disease(s) / Pathogens	Agri-Life® fl. oz./100 gals. (lbs. Cu^{2+}/100 gals)
Poinsettia	Botrytis	15 to 20 (.058 to .078)
	Scab	20 to 35 (.078 to .136)
	Powdery mildew (Preventative)	15 to 20 (.058 to .078)
	Powdery mildew (Theraputic)	20 to 35 (.078 to .136)
Rose Bush	Preventative: Black spot, Powdery mildew	15 to 30 (.058 to .116)
	Therapeutic: Black spot, Powdery mildew	35 to 50 (.136 to .194)
	Preventative: Botrytis, Cylindrocladium, Downy mildew	15 to 20 (.058 to .078)
	Therapeutic: Botrytis, Cylindrocladium, Downy mildew	25 to 50 (.097 to .194)
Tulip	Botrytis	13 to 20 (.050 to .078)

TROPICAL FOLIAGE PLANTS

Plant	Disease(s) / Pathogens	Agri-Life® fl. oz./100 gals. (lbs. Cu^{2+}/100 gals)
Dracaena	Rust	13 to15 (.050 to .058)
Ferns	Botrytis, Erwina, Rhizoctonia	13 to 20 (.050 to .078)
Ivy	Botrytis	13 to 20 (.050 to .078)
	Xanthomonas	15 to 50 (.058 to .194)
Tropical Foliage	Botrytis, Powdery mildew	13 to 25 (.050 to .097)
	Erwina, Pseudomonas, Xanthomonas	20 to 50 (.078 to .194)

STORAGE AND DISPOSAL

Pesticide Storage: Store in a safe place away from PETS AND KEEP OUT OF THE REACH OF CHILDREN. Store between 40° and 120° F, away from excessive heat. **Agri-Life®** will freeze. Always keep container closed. Store **Agri-Life®** in its original container only. Bulk **Agri-Life®** shall be stored and handled in stainless steel, fiberglass, polypropylenes, PVCs or plastic equipment. Keep away from galvanized pipe and any nylon storage or handling equipment.

Pesticide Disposal: Excess **Agri-Life®** must be disposed of through use. Do not contaminate lakes, rivers or streams as this may cause fish kills. 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 directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. In the event of a spill, neutralize with limestone or baking soda before disposal.
May deteriorate concrete.

CONTAINER HANDLING:

For Nonrefillable Containers ≤5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available. If recycling is not available, puncture and dispose of in a sanitary landfill.

For Nonrefillable Containers >5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling if available. If recycling is not available, puncture and dispose of in a sanitary landfill.

LIMITED WARRANTY AND LIMITATION OF REMEDIES

To the extent consistent with applicable law, seller warrants that the product conforms to the chemical description and is reasonably fit for the purpose stated on the label for use under normal conditions, but makes no other warranties of FITNESS OR MERCHANTABILITY, expressed or implied, or any other warranty if the product is used contrary to the label directions, or under abnormal conditions or under conditions not foreseeable to the seller. To the extent consistent with applicable law, in no case shall the seller be liable for more than the cost of this product to the buyer and will in no event be liable for any consequential, special or indirect damages connected with the use or handling of this product. To the extent consistent with applicable law, this product is offered and the buyer or user accepts it subject to the foregoing terms which may not be varied.

Copper Sulfate Pentahydrate	GROUP	M01	FUNGICIDE
Copper Sulfate Pentahydrate	GROUP	NOT CLASSIFIED	HERBICIDE

Agri-Life®

Fungicide / Bactericide*/ Algaecide

*Non-public health bacteria

ACTIVE INGREDIENT:

- Copper Sulfate Pentahydrate (CAS #7758-99-8).....19.8%

OTHER INGREDIENTS: 80.2%

TOTAL: 100.0%

- 5% Metallic Copper Equivalent

Agri-Life® contains 0.495 pounds of metallic copper per gallon.
9.9 lbs. per Gallon 1.188 Kg/L
Agri-Life® is a fully dissolved copper product.

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.)

Non-Flammable DO NOT FREEZE

See booklet for Additional Precautionary Statements and Use Directions.

FIRST AID

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information, call the National Poison Center at 1-800-222-1222. **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 physician immediately for treatment advice. **If Swallowed**: Call a poison control center or doctor immediately for advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. **If on Skin or Clothing**: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information, call the National Poison Center at 1-800-222-1222. **Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

Manufactured for:
Life Science Group, Inc.
Highland, Michigan, USA – (248) 438-5323

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

DANGER: Corrosive. Causes irreversible eye damage. Harmful if swallowed. Harmful if absorbed through skin. Do not get in eyes, on skin, or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

PHYSICAL OR CHEMICAL HAZARDS

Do not use near or in containers composed of iron. Do not mix or allow coming in contact with reducing agent. Hazardous chemical reaction may occur.

ENVIRONMENTAL HAZARDS

Fish Advisory Statement: This copper product is toxic to fish and aquatic organisms. Unlike most organic pesticides, copper is an element and will not break down in the environment and will therefore accumulate in sediment with repeated applications. Copper is a micronutrient, but its pesticidal application rate exceeds the amount of copper needed as a nutrient.

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 biomass. This oxygen loss can cause fish and invertebrate suffocation. To minimize this hazard, do not treat more than ½ of the water body (excluding water infrastructure and constructed conveyances such as drainage canals, ditches and pipelines or intakes and aqueducts for drinking water or irrigation use) to avoid depletion of oxygen due to decaying vegetation. Wait at least 14 days between treatments. Begin treatment along the shore and proceed outward 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. Application of algaecides to high density blooms of cyanobacteria can result in the release of intracellular contents into the water. Some of these intracellular compounds are known mammalian hepato- and nervous system toxins. Therefore, to minimize the risk of toxin leakage, manage cyanobacteria effectively in order to avoid applying this product when blooms of toxin-producing cyanobacteria are present at high density. In situations where rapidly reproducing toxic algal species pose a public health threat to drinking or recreational water resources, applicators must receive authorization from applicable state, local or tribal water resources authorities to apply copper at intervals shorter than 14 days should the circumstance demand.

Certain water conditions including low pH (≤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. The application rates on this label are appropriate for water with pH values > 6.5, DOC levels >3.0 mg/L, and alkalinity greater than 50 mg/L. Avoid treating waters with pH values <6.5, DOC levels >3.0, and alkalinity less than 50 ppm (e.g., soft or acid waters), as trout and other sensitive species of fish may be killed under such conditions if present. Consult your state department of natural resources or fish and game agency before applying this product to public waters. Permits may be required before treating such waters.

For terrestrial uses, this pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has a potential runoff for several months or more after application. Poorly drained soil 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. 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 washwater or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirement specific to your State and Tribe, consult the State or Tribal agency responsible for pesticide regulation.

STORAGE AND DISPOSAL

Pesticide Storage: Store in a safe place away from PETS AND KEEP OUT OF THE REACH OF CHILDREN. Store between 40° and 120° F, away from excessive heat. **Agri-Life®** will freeze. Always keep container closed. Store **Agri-Life®** in its original container only. Bulk **Agri-Life®** shall be stored and handled in stainless steel, fiberglass, polypropylenes, PVCs or plastic equipment. Keep away from galvanized pipe and any nylon storage or handling equipment. **Pesticide Disposal**: Excess **Agri-Life®** must be disposed of through use. Do not contaminate lakes, rivers or streams as this may cause fish kills. 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 directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. In the event of a spill, neutralize with limestone or baking soda before disposal. May deteriorate concrete. **CONTAINER HANDLING: For Nonrefillable Containers ≤5 gallons:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available. If recycling is not available, puncture and dispose of in a sanitary landfill. **For Nonrefillable Containers >5 gallons:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling if available. If recycling is not available, puncture and dispose of in a sanitary landfill.

NET CONTENTS:

☐ 2.5 Gallons ☐ 5 Gallons

☐ 55 Gallons ☐ 270 Gallons

EPA Reg. No. 88930-2
EPA Est. No. 89146-CA-1