UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

May 12, 2015

Megan Pletka
Regulatory Agent for Life Science Group, Inc.
c/o Technology Sciences Group, Inc.
1150 18th Street, Suite 1000
Washington DC 20036

Subject: Notification per PRN 98-10: Add ABN "Agri-Life"; correct typographical errors
Product Name: Alonglife
EPA Registration Number: 88930-1
Application Date: April 15, 2015
Decision Number: 503881

Dear Ms. Pletka:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped “Notification” and will be placed in our records. The alternate brand name (ABN) "Agri-Life" has been added to the product record.

If you have any questions, please contact Tony Kish by phone at 703 308-9443, or via email at kish.tony@epa.gov; or Craig Reeves by phone at 703 347-0486, or via email at reeves.craig@epa.gov.

Sincerely,

Tony Kish, Product Manager 22
Fungicide Branch
Registration Division (7505P)
Office of Pesticide Programs

NOTIFICATION

88930-1

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

05/12/2015

ALONGLIFE®

{Alternate Brand Names: AGRI-LIFE IRRIGATION, TERRATEC, AGRI-LIFE RICE, RICETEC, AGRI-LIFE AQUACULTURE, AQUATEC, AGRI-LIFE, AGRI-LIFE FRUIT AND VEGETABLE, SEPTI-LIFE, LAKE-LIFE, POOL-LIFE}

MASTER LABEL Containing:
Sub Label A: Non-Agricultural Use
Sub Label B: Agricultural Crop Use

EPA Reg. No. 88930-1
EPA Est. No.

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

Sub Label A: Non-Agricultural Use

ALONGLIFE®

{Alternate Brand Names: AGRI-LIFE IRRIGATION, TERRATEC, AGRI-LIFE RICE, RICETEC, AGRI-LIFE AQUACULTURE, AQUATEC, AGRI-LIFE, AGRI-LIFE FRUIT AND VEGETABLE, SEPTI-LIFE, LAKE-LIFE, POOL-LIFE}

Algaecide/Bactericide*/Fungicide/Aquatic Herbicide/Molluscicide

KEEP OUT OF REACH OF CHILDREN

DANGER / PELIGRO

Si usted no entiende la etqueta, busque an alguien para que se la explique and usted en detalle.
(If you do not understand this label, find someone to explain it to you in detail.)

(See (back) (label) (booklet) for (First Aid) (and) (Additional Precautionary Statements) (Use Directions).)

ACTIVE INGREDIENT:
•Copper Sulfate Pentahydrate (CAS #7758-99-8).....19.8%
OTHER INGREDIENTS:.....80.2%
TOTAL:.....100.0%
•5% Metallic Copper Equivalent

EPA Reg. No. 88930-1
EPA Est. No.

Non-Flammable
DO NOT FREEZE

NET CONTENTS:

9.9 lbs. per Gallon 1.188 Kg/L

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

PRODUCT INFORMATION:

ALONGLIFE® is used for the suppression of bacterial odors and toxic gases in sewage lagoons, feedlot runoff pits, animal confinement facilities, and organic sludge pits containing organic matter of algae/bacteria*.
ALONGLIFE® is used to control algae, bacteria*, aquatic weeds, mollusks, leeches and snails in irrigation reservoirs, lakes, swimming areas, farm, industrial, retention and golf course ponds, ornamental water features or fountains, aquaculture ponds, livestock watering systems, biological fish ponds or systems, irrigation and chemigation systems, and waters destined for use as drinking water.
ALONGLIFE® is used to control Quagga and Zebra mussels in lakes, ponds, lagoons, reservoirs, sedimentation basins, canals and ditches.
ALONGLIFE® is used for control of algae and suppression of bacterial* growth in private and public pools, spas and hot tubs.

* Non-public health bacteria

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 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.
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 induct vomiting unless told to do so by the poison control center or doctor.
If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals
DANGER

Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Harmful if swallowed, inhaled or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

For applications in waters destined for use as drinking water, those waters must receive additional and separate potable water treatment. Do not apply more than 1.0 ppm as metallic copper in these waters.

PHYSICAL OR CHEMICAL HAZARDS

Do not use near or in containers composed of iron.

PERSONAL PROTECTIVE EQUIPMENT

- Applicators and other handlers must wear:
· Long-Sleeved Shirt
· Long Pants
· Chemical-resistant gloves made of any waterproof material (Chemical resistance category A)
· Protective Eyewear
· Shoes plus socks

USER SAFETY REQUIREMENTS

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

USER SAFETY RECOMMENDATIONS

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

ENVIRONMENTAL HAZARDS

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 to avoid depletion of oxygen due to decaying vegetation. Wait at least 10 to 14 days between treatments. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Consult with the State or local agency with primary responsibility for regulating pesticides before applying to public waters, to determine if a permit is required.

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.

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/Tribal agency responsible for pesticide regulation.

NON-AGRICULTURAL USE REQUIREMENTS

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

SPRAY DRIFT MANGEMENT

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

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

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

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

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

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

downwind edge of the application area by adjusting the path of the aircraft upwind. When there may be drift caused by wingtip or rotor vortices, the minimum practical boom length should be used.

For Ground Boom Application: Do not apply with a nozzle height greater than 4 feet above the crop.

SPECIFIC DIRECTIONS FOR USE

CONTROL OF BACTERIAL ODOR AND TOXIC GAS PRODUCED BY BACTERIAL ACTION:
Apply up to 1 Gallon ALONGLIFE® per 60,000 gallons (8,000 cubic feet) of organic matter (sewage). Application rates may vary depending on amounts of sewage in lagoons and pits. Apply by pouring ALONGLIFE® into the pit or lagoon. Several application points speed up dispersal. For faster results, disperse ALONGLIFE® evenly throughout sewage. Bacterial odors should be noticeably reduced in 1-2 weeks. Repeat application when odors recur. Minimum retreatment interval is 14 days.

Feedlot Runoff Lagoons: Add a portion of the required dosage of ALONGLIFE® at several locations around the lagoon to speed dispersal of the product. A minimum of two applications per year (spring and fall) is recommended. Additional applications may be required as needed or when the lagoon is pumped.

Animal Confinement Pits: If pits are located under the confinement buildings, add ALONGLIFE® directly to these pits. If the pits are outside, add ALONGLIFE® to transfer line to the pit.

Organic Sludge Pits: Apply 1 Gallon ALONGLIFE® in 60,000 gallons of sludge, mixing thoroughly.

FOR AQUATIC PLANT, ALGAE AND BACTERIA* CONTROL IN IMPOUNDED WATERS, LAKES, PONDS, LIVESTOCK WATERING SYSTEMS, RESERVOIRS, SWIMMING AREAS, FARM, INDUSTRIAL, RETENTION AND GOLF COURSE PONDS, AQUACULTURE PONDS, BIOLOGICAL FISH PONDS OR SYSTEMS, IRRIGATION AND CHEMIGATION SYSTEMS, ~~AND~~ ORNAMENTAL WATER FEATURES AND FOUNTAINS:
Apply ALONGLIFE® through metering pump, subsurface hoses or from a properly equipped moving boat into the body of water. No more than ½ of the body of water may be treated in a single application. For small ponds and ornamental water features and fountains, apply ALONGLIFE® by directly pouring 2 fluid ounces per 125 cubic feet (1/4 tsp per 20 gallons) of water for 1 ppm of copper into the water around half of the perimeter of the body of water. 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 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 ALONGLIFE® evenly to warm, still water on a sunny day when algae are near the surface. Several application points speed up dispersal.

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 60ºF (15.6º C). Higher dosages are required at lower 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.

FOR LEECH AND SNAIL CONTROL IN IMPOUNDED WATERS, LAKES, PONDS, LIVESTOCK WATERING SYSTEMS, RESERVOIRS, SWIMMING AREAS, FARM, INDUSTRIAL, RETENTION AND GOLF COURSE PONDS, AQUACULTURE PONDS, BIOLOGICAL FISH PONDS OR SYSTEMS, IRRIGATION AND CHEMIGATION SYSTEMS, ~~AND~~ ORNAMENTAL WATER FEATURES AND FOUNTAINS:
Apply ALONGLIFE® through metering pump, subsurface hoses or from a properly equipped moving boat into body of water. No more than ½ of the body of water may be treated in a single application. For small ponds and ornamental water features and fountains, apply ALONGLIFE® by directly pouring 2 fluid ounces per 125 cubic feet (1/4 tsp per 20 gallons) of water for 1 ppm of copper into the water around half of the perimeter of the body of water. 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 8.25 gallons per acre-foot of water (see use rate chart below).

USE RATES

Gallons of Product per acre/ft	Equivalent Metallic Copper (ppm)
0.33	0.06
0.50	0.09
3.30	0.60
5.50	1.00
8.25	1.50

Before treating bodies of water, consult proper state authorities, such as the fisheries commission or conservation department to obtain any necessary permits. Do not apply copper sulfate to water less than 40 ppm alkalinity without first testing for fish toxicity in a separate container.
Treatment of algae can result in oxygen loss from the decomposition of dead algae, which may cause fish suffocation. Treat one-third to one-half of the water area in a single operation, and wait 14 days between treatments. Begin treatment along the shore and proceed outward in bands to allow fish to move into untreated areas. In regions where ponds freeze in winter, treatment should be done 6 to 8 weeks before expected freeze time to prevent masses of decaying algae under an ice cover.

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
Calculate the Acre-Feet of water in the body of water to be treated by calculating the surface area in square feet. Then divide by 43,560 (sq.ft./acre). Then multiply by the average depth in feet.
1 Acre Foot of Water = an area of water measuring 43,560 sq. ft. x 1 foot deep
1 Acre Foot of Water = 43,560 cubic feet = 325,851.6 gallons
1 Cubic Foot of Water = 62.4 pounds
1 Acre Foot of Water = 43,560 x 62.4 = 2,720,000 pounds

DIRECT AQUATIC RATES

Crop	Maximum per Application Rate (lbs. Cu2+/A)	Maximum Annual Rate (lbs. Cu2+/A)	Minimum Retreatment Interval (days)	Instructions
Algae, Cyanobacteria, Aquatic Weeds, (Elodea spp., Hydrilla, Potamogeton spp., Irrigation Canal Weed, Annual Naiads) for all aquatic application sites	1 part per million (ppm)	n/a	14	No more than 1/2 of the water body may be treated at one time. If the treated water is to be used as a source of potable water, the metallic copper concentration must not exceed 1 ppm.
Schistosome-Infected Freshwater Snail Control	1.5 ppm	n/a	n/a	No more than 1/2 of the water body may be treated at one time. If the treated water is to be used as a source of potable water, the metallic copper concentration must not exceed 1 ppm.
Leech Control	1.5 ppm	n/a	n/a	No more than 1/2 of the water body may be treated at one time. If the treated water is to be used as a source of potable water, the metallic copper concentration must not exceed 1 ppm.

TO CONTROL QUAGGA AND ZEBRA MUSSELS IN LAKES, PONDS, LAGOONS, RESERVOIRS, SEDIMENTATION BASINS, CANALS AND DITCHES:
Treat mussels only as a curative measure. Treat one-half of the surface of the body of water at a time. For control of adult and juvenile mussels, apply at the rate of 1 gallon of ALONGLIFE® per 60,000 gallons of water to yield a rate of 1.0 ppm metallic copper. For the control of veligers in the larval mollusk stage, treat at the rate of 3 gallons of ALONGLIFE® per 1,000,000 gallons of water to yield a concentration of 0.18 ppm metallic copper.

CONTROL OF ALGAE / BACTERIA* IN RESERVOIRS AND TANKS FOR WATER DESTINED FOR USE AS DRINKING WATER:
ALONGLIFE® is for use in waters destined for use as drinking water, these waters must receive additional and separate potable water treatment. DO NOT apply more than 1.0 ppm as metallic copper.

Water intended for human use in municipal water reservoirs and tanks:
Use ALONGLIFE® to control algae/bacteria* in municipal water supplies before they are purified for drinking, Apply 2 fluid ounces per 125 cubic feet (1/4 tsp per 20 gallons) of water for 1 ppm of copper. Apply by boat or from side of reservoir/ tank at equal intervals.
Reservoirs of water intended for drinking water use:
For the control of algae/bacteria* in water reservoirs destined for use as drinking water, refer to the USE RATES below for the specific application rates. Treated water must receive additional and separate potable water treatment. Applications may be repeated in 14 days. Apply by boat or from side of reservoir at equal intervals.

USE RATES

Gallons of Product per acre/ft	Equivalent Metallic Copper (ppm)
0.33	0.06
0.50	0.09
3.30	0.60
5.50	1.00

Stock watering ponds, tanks, and troughs:
For the control of algae/bacteria* in stock water ponds, tanks, and troughs, add ¼ tsp ALONGLIFE® to 30 gallons of water for a final ppm of 0.7 ppm. Do not exceed 1 ppm (1/4 tsp per 20 gallons). Apply by boat or from side of tank or trough at equal intervals.

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 ALONGLIFE® 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.

CONTROL OF ROOTED AND SUBMERGED PLANTS:
Rooted and submerged plants such as Hydrilla and Potomogeton can be controlled using ALONGLIFE® at 0.4 – 1.0 ppm which equals 0.22 -5.5 gals per acre/ft. Application rates are dependent on the density, stage of growth and the water depth. Only treat one half of the body of water at one time. Start at the edge and spray towards the center of the body of water. Applications may be repeated in 14 days.

CONTROL OF FLOATING AQUATIC PLANTS:
Water hyacinth and other floating aquatic vegetation can be suppressed BUT NOT ERADICATED by using a mixture of 1.03 gallons of ALONGLIFE® per 7 gallons of water. Apply this solution as a coverage spray to thoroughly wet all exposed vegetation. Only treat one half of the body of water at one time. In areas of heavy infestation, multiple applications may be required. Applications may be repeated in 14 days. Do not exceed 5.46 gallons of product per acre foot of water.

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 ALONGLIFE® 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 ALONGLIFE® in 60,000 gallons of water (1 ppm metallic copper).

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

EXAMPLE CALCULATION CHEMIGATION AND IRRIGATION FLOW RATES (0.06 ppm Cu)

Water Flow Rate gallons per minute per acre/ft. (gpm)	Water Flow Rate cubic feet per minute (cfm)	Dosage Rate ppm Metallic Cu	ALONGLIFE® fl oz/min	Feeder Pump Setting ALONGLIFE® mL/min
3,000	400	0.06	0.4	11.3
6,000	800	0.06	0.8	22.6
9,000	1,200	0.06	1.1	34.0
12,000	1,600	0.06	1.5	45.3

CHEMIGATION AND IRRIGATION FLOW RATES (1.0 ppm Cu)

Water Flow Rate gallons per minute (gpm)	Water Flow Rate cubic feet per minute (cfm)	Dosage Rate ppm Metallic Cu	ALONGLIFE® fl oz/min	Feeder Pump Setting ALONGLIFE® mL/min
3,000	400	1.0	6.4	188.7
6,000	800	1.0	12.8	377.5
9,000	1200	1.0	19.1	566.2
12,000	1600	1.0	25.5	755.0

BIOLOGICAL FISH PONDS AND AQUACULTURE SYSTEMS:
Before treating ponds containing fish with ALONGLIFE®, 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 ALONGLIFE® 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 ALONGLIFE® 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 ALONGLIFE® Applied One Acre Foot (12 Inches Deep)		
Gallons ALONGLIFE®	Gallons Water	Copper ppm
0.25	326,000	0.05
0.50	326,000	0.09

SWIMMING POOLS, SPAS & HOT TUBS:
Apply at the rate of 2-4 quarts of per 60,000 gallons (8,000 cu. ft.), (0.5 to 1.0 ppm metallic copper) to control bacterial odors and algae throughout the year.

For hot tubs or spas, apply at a rate of 0.1 – 0.2 fl. oz. per 100 gallons of water. Measure the amount of product to be used with a calibrated measuring device. Do not use a measurement cup or device that may also be used for human or pet food. For best results, apply before visible algae appear. If visible algae are present, use the higher rate. For maintenance treatment and where visible algae are not present, use the lower rate. Do not discharge treated effluent where it will drain into lakes, streams, ponds or public water.

Every 14 days, test the copper level using a standard commercial swimming pool copper test kit. Add ALONGLIFE® to raise level back to 0.9 ppm (see tables). The amount of ALONGLIFE® to be added is proportional to the starting concentration and volume of water. Do not exceed 1.0 ppm metallic copper.

MAINTAINING METALLIC COPPER CONCENTRATION IN POOLS

Pool Volume (gallons)	**7,000**	**8,000**	**9,000**	**10,000**	**11,000**	**12,000**	**13,000**	**14,000**
Measured Metallic Copper Level in Pool	**ADDITIONAL FLUID OUNCES OF ALONGLIFE® ADDED TO MAINTAIN CONTROL**							
0.9 ppm	0	0	0	0	0	0	0	0
0.8 ppm	1	1	2	2	2	2	2	3
0.7 ppm	3	3	4	4	5	5	5	6
0.6 ppm	4	5	5	6	6	7	8	9
0.5 ppm	6	1	7	8	10	10	11	12
0.4 ppm	8	9	10	11	13	13	14	15
0.3 ppm	9	10	12	13	15	15	16	18
0.2 ppm	11	12	14	15	17	18	20	21
0.1 ppm	12	14	15	17	19	20	22	24

MAINTAINING METALLIC COPPER CONCENTRATION IN SPAS

Spa Volume (gallons)	**100**	**200**	**300**	**400**	**500**	**700**	**800**	**900**	**1,000**
Measured Metallic Copper Level in Spa	**ADDITIONAL MILLILITERS OF ALONGLIFE® ADDED TO MAINTAIN CONTROL**								
0.9 ppm	0	0	0	0	0	0	0	0	0
0.8 ppm	1	1	2	3	3	4	5	6	6
0.7 ppm	1	3	4	5	6	9	10	11	13
0.6 ppm	2	4	6	8	9	13	15	17	19
0.5 ppm	3	5	8	10	13	18	20	23	25
0.4 ppm	3	6	9	13	16	22	25	28	32
0.3 ppm	4	8	11	15	19	27	30	34	38
0.2 ppm	4	9	13	18	22	31	35	40	44
0.1 ppm	5	10	15	20	25	35	40	45	51

An alternate method is to apply at the rate of 1 fluid ounce of ALONGLIFE® 1,000 gallons of water. This will yield a rate of 0.45 ppm metallic copper. Repeat a maintenance dosage of 1 fluid ounce of ALONGLIFE® per 1,000 gallons of water once a month to maintain control. Application should be made before visible algae appear. Where visible algae are present apply at a rate of 2 fluid ounces of ALONGLIFE® per 1,000 gallons of water. This will yield a rate of 0.9 ppm metallic copper.

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 ALONGLIFE®. Always rinse equipment free and clean of ALONGLIFE® each night with plenty of fresh, clean water. Always store ALONGLIFE® above 32ºF. Freezing may cause product separation. Seller makes no warranty for the performance of product which has been frozen.

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. ALONGLIFE® will freeze. Always keep container closed. Store ALONGLIFE® in its original container only. Bulk ALONGLIFE® 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 ALONGLIFE® 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 instructions, 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, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For Refillable Containers: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full of water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

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 instructions, 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.

Sub Label B: Agricultural Crop Use

ALONGLIFE®

{Alternate Brand Names: AGRI-LIFE IRRIGATION, TERRATEC, AGRI-LIFE RICE, RICETEC, AGRI-LIFE AQUACULTURE, AQUATEC, AGRI-LIFE, AGRI-LIFE FRUIT AND VEGETABLE, SEPTI-LIFE, LAKE-LIFE, POOL-LIFE}

Algaecide / Bactericide*/Fungicide/Aquatic Herbicide

KEEP OUT OF REACH OF CHILDREN

DANGER / PELIGRO

Si usted no entiende la etqueta, busque an alguien para que se la explique and usted en detalle.
(If you do not understand this label, find someone to explain it to you in detail.)

(See (back) (label) (booklet) for (First Aid) (and) (Additional Precautionary Statements) (Use Directions).)

ACTIVE INGREDIENT:
•Copper Sulfate Pentahydrate (CAS #7758-99-8).....19.8%
OTHER INGREDIENTS:.....80.2%
TOTAL:.....100.0%
•5% Metallic Copper Equivalent

EPA Reg. No. 88930-1
EPA Est. No.

Non-Flammable
DO NOT FREEZE

NET CONTENTS:

9.9 lbs. per Gallon 1.188 Kg/L

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

PRODUCT INFORMATION:

ALONGLIFE® is used for control of listed plant diseases in 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.
ALONGLIFE® is used for extending the shelf life of fruits and vegetables by reduction of the bacteria* and fungi that cause spoilage in post-harvest raw fruits and vegetables.
ALONGLIFE® is used to control algae and tadpole shrimp in rice fields.

* Non-public health bacteria

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 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.
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 induct vomiting unless told to do so by the poison control center or doctor.
If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals
DANGER

Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Harmful if swallowed, inhaled or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.
For applications in waters destined for use as drinking water, those waters must receive additional and separate potable water treatment. Do not apply more than 1.0 ppm as metallic copper in these waters.

PHYSICAL OR CHEMICAL HAZARDS

Do not use near or in containers composed of iron.

PERSONAL PROTECTIVE EQUIPMENT

- Applicators and other handlers must wear:
· Long-Sleeved Shirt
· Long Pants
· Chemical-resistant gloves made of any waterproof material (Chemical resistance category A)
· Protective Eyewear
· Shoes plus socks

USER SAFETY REQUIREMENTS

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

USER SAFETY RECOMMENDATIONS

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

ENVIRONMENTAL HAZARDS

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 to avoid depletion of oxygen due to decaying vegetation. Wait at least 10 to 14 days between treatments. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Consult with the State or local agency with primary responsibility for regulating pesticides before applying to public waters, to determine if a permit is required.

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.

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

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/Tribal agency responsible for pesticide regulation. Seek advice on identifying specific disease problems from your local Extension Agent, state land grant university or other knowledgeable persons.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this `label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water), is:
– coveralls over long-sleeved shirt and long pants
– chemical-resistant gloves made of any waterproof material
– chemical-resistant footwear plus socks
– protective eyewear

NON-AGRICULTURAL USE REQUIREMENTS

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

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

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

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

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

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

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

For Ground Boom Application: Do not apply with a nozzle height greater than 4 feet above the crop.

ALONGLIFE® may be applied with any type of application equipment that gives uniform coverage of all foliage, including ground, aerial and low volume sprayers as specified on this label. Equipment used for application should be PVC or 316 L stainless steel. ALONGLIFE® is compatible with most fungal and insecticidal biopesticides when applied at least two (2) days before or after application of the biopesticide.

Phytotoxicity - Although ALONGLIFE® has been tested on a wide variety of fruits, vegetables and nuts without phytotoxicity, there could be some varieties and cultivars that because of environmental factors and stages of growth could possibly foster systems. The per acre use rate of ALONGLIFE® is applicable for dilute spraying. Depending on the equipment used and the specific crop, the spray volume applied per acre will differ. Refer to the Minimum Recommended Spray Volume Table. Complete spray coverage is essential to assure optimum performance from ALONGLIFE®. When treating by aerial application or with low volume application equipment, unless you have had specific previous experience, it is advisable to test tor compatibility and tolerance to crop injury prior to full scale commercial utilization.

Consult ALONGLIFE® label for specific rates and timing of application by crop. Where application rates and intervals are provided in a range (e.g., 2-4 fluid ounces and 7 to 10 days) the higher rates and shorter spray time intervals are recommended when rainfall is heavy and/or disease pressure is high. Use the higher rates for large mature tree crops. The use of a surfactant, such as Cell-U-Wett™ is acceptable for plants having waxy or hairy surfaces. ALONGLIFE® works via surface contact with the plants and materials being treated. It is important to ensure that all surfaces are thoroughly wetted. ALONGLIFE® does not produce any visible residue or have a distinct odor. It does have a molecular residual, especially if applied with a surfactant.

SPECIAL PRECAUTIONS

- Do not ALONGLIFE® mix with acidic compounds such as Alliette™ or apply to crops within 14 days before or after application of same.
- This product may be reactive on masonry and metal surfaces such as galvanized roofing. Avoid contact with metal surfaces
- Do not spray on cars, houses, lawn furniture, etc.
- 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 ALONGLIFE® resulting in possible phytotoxicity or loss of effectiveness.
- Do not mix with pot ash.
- 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.

GENERAL CHEMIGATION INSTRUCTIONS

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, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into 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 ALONGLIFE® 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.

ALONGLIFE® may be added through a traveling system continuously or at the last 30 minutes of solid set or hand moved irrigation systems. ALONGLIFE® 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 ALONGLIFE® 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.

ALONGLIFE® may be added through a traveling irrigation system or at the last 30 minutes of solid set or hand moved irrigation systems. ALONGLIFE® 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.

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 ALONGLIFE® 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.
ALONGLIFE® may be added through a traveling irrigation system continuously or at the last 30 minutes of solid set or hand moved irrigation systems. ALONGLIFE® 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 RECOMMENDED SPRAY VOLUME (GALLONS) PER ACRE WHEN APPLYING ALONGLIFE®

	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 instructions 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.

FROST INJURY PROTECTION BACTERIAL ICE NUCLEATION INHIBITOR

Application of ALONGLIFE® 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.

AMOUNT OF ALONGLIFE® PER VOLUME OF WATER FOR PROPER PARTS PER MILLION (PPM) OF APPLIED ACTIVE INGREDIENT (as Copper)

PPMs of A.I.	30 Gallons per Acre	50 Gallons per Acre	100 Gallons per Acre	125 Gallons per Acre	250 Gallons per Acre	500 Gallons per Acre
50	3.84 fl. oz.	6.4 fl. oz.	12.8 fl. oz.	16 fl. oz.	32 fl. oz.	64 fl. oz.
75	5.76 fl. oz.	9.5 fl. oz.	19.2 fl. oz.	24 fl. oz.	48 fl. oz.	96 fl. oz.
100	7.68 fl. oz.	12.8 fl.oz	25.6 fl. oz.	32 fl. oz.	64 fl. oz.	1 gal.
125	9.60 fl. oz.	16.0 fl. oz.	32.0 fl. oz.	40 fl. oz.	80 fl. oz.	1.25 gal.
150	11.52 fl. oz.	19.2 fl. oz.	38.4 fl. oz.	48 fl. oz.	96 fl. oz.	1.5 gal.

Low volume sprayers should use a minimum of 16 ounces for complete coverage.

The chart above is used to calculate correct ppm of active ingredient (A.I.) per volume of carrier water. These volumes can be used for either conventional or concentrated sprays.

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

SPECIFIC DIRECTIONS FOR USE

EXTENSION OF SHELF LIFE OF FRUITS AND VEGETABLES BY REDUCTION OF THE BACTERIA* AND FUNGI THAT CAUSE SPOILAGE IN POST-HARVEST RAW FRUITS AND VEGETABLES:
ALONGLIFE® is a post-harvest wash/spray to reduce spoilage and extend the shelf life of the raw agricultural commodities on this label. Apply with any type of application equipment that gives uniform and thorough coverage. Devices may include but are not limited to, dunk and dip tanks, spray applicators or fogging.

Add between 0.62 fl. oz. (1¼ tablespoons) and 1.86 fl. oz. (3¾ tablespoons) of ALONGLIFE® per 100 gallons of water to clean and control bacteria* and fungi that cause spoilage and contamination. This results in an application concentration of between 3 ppm and 9 ppm copper. Several application points speed up dispersal. Wash fruit or vegetables in solution by immersion, spraying, soaking or other similar method. Drain solution from fruit or vegetables. Fruits and vegetables must remain refrigerated to ensure effectiveness.

TO CONTROL ALGAE AND TADPOLE SHRIMP IN RICE FIELDS:
Apply ALONGLIFE® at the first sign of algae growth on the surface of the field or at any time tadpole shrimp appear between planting time and when the seedlings are well rooted and have emerged through the water. Applications are most effective when made prior to algae leaving the soil surface and rising to the water surface. Factors such as water depth, temperature, pH and the amount of algae can affect the amount of ALONGLIFE® required. If the depth of water is 8 inches, apply 9 gallons of product per acre. If the depth of water is 4 inches, apply 4½ gallons of product per acre. ALONGLIFE® can be metered into the rice field as water is being applied or slug fed into each paddy when water is being held. Do not exceed a metallic copper concentration in water of 2.5 ppm of metallic copper concentration (9 gallons of product per acre with 8 inch depth of water or 13½ gallons of product per acre foot of water). Do not exceed 1 ppm of metallic copper concentration (3.5 gallons per acre with 8 inch depth of water of 5.33 gallons or product per acre at a one foot depth of water) if tadpole shrimp are not present.

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 instructions.

Each gallon of ALONGLIFE® contains 0.5 lbs. of metallic copper.

CITRUS
Grapefruit, Kumquat, Lemon, Lime, Orange, Tangelo and Tangerine

Disease	Rate per Acre fl. Oz.	Minimum Treatment Interval (days)	Instructions
Brown Rot	30-70	7	Apply at first indication of rain or first appearance of Brown Rot
Greasy Spot, Pink Pitting	25.6-64	7	Apply during mid-summer
Scab	25.6-64	7	Apply shortly before trees begin to flush. Re-apply at 2/3 petal fall. Re-apply four weeks later if necessary
Melanose	12.8-64	7	Apply two times per year (applications must be 7 days apart) before onset of spring and autumn rains.
Canker (Suppression)	12.8-64 **12.6 lbs.	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 dosage of 250 ppm with a follow up spray after 7-14 days.

** Maximum Annual Load of metallic copper.

FIELD CROPS

Crop	Disease	Rate/Acre fl. oz.	Minimum Treatment Interval (days)	Instructions
Alfalfa	Cercospora Leaf Spot, Leptosphaerulina Leaf Spot	19.2-32 **1.12 lbs.	30	Apply 30 days before each harvest or earlier if disease threatens. NOTE: Spray injury may occur with sensitive varieties such as Lahontan.
Corn (Field Corn, Popcorn, Sweet Corn	Bacterial Stalk Rot	19.2-32 **4.2 lbs.	7	Begin treatment when disease first appears and repeat every 7 to 10 days. Use the higher rates and shorter spray intervals when conditions favor disease.
Peanut	Cercospora Leaf Spot	19.2-25.6 **4.74 lbs.	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	Early Blight, Late Blight	19.2-32 **25.0 lbs.	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 Beets	Cercospora Leaf Spot	19.2-38.4 **7.86 lbs.	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.
Wheat Barley, Oats	Helminthosporium Spot Blotch, Septoria Leaf Blotch	19.2-25.6 **1.06 lbs.	10	Make first application at early heading and follow with a second spray 10 days later. Use the higher rates when conditions favor disease.

** Maximum Annual Load of metallic copper.

SMALL FRUITS

Crop	Disease	Rate/Acre fl. oz.	Minimum Treatment Interval (days)	Instructions
Blackberry (Aurora, Boysen, Cascade, Chehalem, Logan, Marion, Santiam, Thornless Evergreen)	Anthracnose, Cane Spot, Leaf Spot, Pseudomonas Blight, Purple Blotch, Yellow Rust	32	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.
	Anthracnose, Cane Spot, Leaf Spot, Purple Blotch Yellow Rust	19.2	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 environmental

		**10.0 lbs.		conditions such as hot or prolonged moist periods. Discontinue applications if signs of crop injury appear.
Blueberry	Bacterial Canker	33-51.2	7	Make application before fall rains and a second application 4 weeks later. Use the higher rates when conditions favor disease.
	Fruit Rot, Phomopsis Twig Blight	25.6-51.2 **8.4 lbs.	7	Dormant Application: Begin applications when bloom buds begin to swell. Make additional applications at 7 to 14 day intervals before blooms open.
Cranberry	Fruit Rot	51.2	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	7	Apply three sprays on 7 to 14 day schedule as soon as symptoms are observed.
	Bacterial Stem Canker	51.2	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.
	Leaf Blight, Red Leaf Spot, Stem Blight, Tip Blight (*Monilinia*)	51.2 **6.3 lbs.	7	Apply delayed dormant spray the spring. Repeat at 7 to 14 day intervals through pre-bloom.
Currant, Gooseberry (ribes)	Anthracnose, Leaf Spot	64 **16.0 lbs.	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	8	Make fall application after harvest. Apply delayed dormant spray after training in the spring. If needed, agricultural-type spray oil may be added.
	Anthracnose, Cane Spot Leaf Spot, Purple Blotch, Yellow Rust	19.2 **10.0 lbs.	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	Angular Leaf Spot (*Xanthomonas*), Leaf Blight Leaf Scorch, Leaf Spot	19.2-25.6 **8.19 lbs.	7	Begin application when plants are established and continue on a weekly schedule throughout the season. 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.

** Maximum Annual Load of metallic copper.

TREE CROPS

Crop	Disease	Rate/Acre fl. oz.	Minimum Treatment Interval (days)	Instructions
Almond, Apricot, Cherry, Plum Prune	Bacterial Blast (*Pseudomonas*), Bacterial Canker, Coryneum Blight (Shot Hole)	51.2-64	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 NePlus varieties.
	Blossom Brown Rot, Coryneum Blight (Shot Hole)	51.2-64 on Almond, all others 60-90	5	Apply during early bloom. Do not apply after full bloom or injury may occur. Use the higher rates when rainfall is heavy and disease pressure is high.
	Black Knot* (Plum)	32-64	5	Make application at bud swell up to early bloom for early disease suppression. Apply before full bloom. Use higher rates when rainfall is heavy and disease pressure is high. NOTE: To avoid plant injury, do not use after full bloom.
	Cherry Leaf Spot* (Sour Cherries only)	38.4-64 **18.0 lbs.	7	Apply at petal fall as well as 1 to 2 times after petal fall. Use the lower rates where disease infection is light and use the higher rates for a dormant application or where disease infection is moderate to heavy. Do not apply to sweet cherry or the English Morello variety as severe injury will result. NOTE: Moderate to severe injury such as leaf spotting and defoliation may occur from post bloom applications.
Apple	Anthracnose, Blossom Blast, European Canker (*Necria*) Shoot Blast (*Pseudomonas*)	51.2-64	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	51.2-64	N/A only one application permitted per season.	Make applications 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	19.2-25.6	5	Extended spray schedule where fruit finish is not a concern. Continued applications may be made at 5 to 7 day intervals between 1/2 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 russetting.
	Fire Blight	19.2-25.6	5	
	Collar Rot, Crown Rot	32 **16.0 lbs.		Mix 32 oz with 100 gallons of water and apply 4 gallons of solution 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	Anthracnose, Blotch, Scab	51.2-64 **18.9 lbs.	14	Apply when bloom buds begin to swell and continue application at monthly intervals for five to six applications. Use the higher rates when conditions favor disease.
Banana	Sigatoka (Black and Yellow)	19.2	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.
	Black Pitting	32 **18.9 lbs.	7	Mix product in100 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	Black pod	19.2-64 **15.75 lbs.	14	Begin applications at the start of the rainy season and continue while infection conditions persist.
Coffee	Coffee Berry Disease (*Collectotrichum coffeanum*)	38.4-64	14	Apply first spray after flowering and before onset of long rains and then at 14-28 day intervals until picking. Use the higher rates when conditions favor disease.
	Bacterial Blight (*Pseudomonas syringae*)	38.4-64	14	Begin spray program before the onset of long rainy periods and continue throughout the rainy season at 14-21 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*)	19.2-32	14	Apply before the onset of rain and then at 14 - 21 day intervals while the rains continue. Use the higher rates when rainfall is heavy and disease pressure is high.

	Iron Spot (*Cercospora coffeicola*), Pink Disease	19.2 **12.6 lbs.	14	Use concentrate or dilute spray. Begin treatment at the start of wet season and continue at monthly intervals for three applications
Mango	Anthracnose	38.4-64 **18.2 lbs.	7	Apply monthly after fruit set until harvest. Use higher rates when rainfall is heavy and disease pressure is high.
Peach Nectarine	Bacterial Spot	19.2 **18lbs.	5	Post bloom application applied at first and second cover sprays. NOTE: Do not spray 3 weeks prior to harvest. Use only recommended rates. Spotting of leaves and defoliation may occur from use in cover sprays
Pear	Fire Blight	19.2 **16 lbs.	5	Apply at 5 day intervals throughout the bloom period. NOTE: Russetting may occur in copper sensitive varieties. Excessive dosages may cause fruit russet on any variety.
Pecan	Kernel Rot, Shuck Rot (*Phytophthora cactorum*), Zonate Leaf Spot (*Cristulariella pyamidalis*)	19.2-32	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.
	Ball Moss, Spanish Moss	38.4-64 **8.4 lbs.	14	Apply in 100 gallons of water in the spring when ball moss is actively growing, using 1 1/2 gallons of spray per foot of tree height. Make sure to wet ball moss tufts thoroughly. The addition of a non-ionic surfactant will improve control. A second application will be required after 12 months.
Pistachio	Botryosphaeria Panicle and Shoot Blight, Late Blight (*Alternaria alternata*),	32-64 **8.4 lbs.	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	Fire Blight	19.2 **16.0 lbs.	5	Apply at 5 day intervals throughout the bloom period. Apply in adequate water for thorough coverage.
Walnut	Walnut Blight	38.4-64 **25.2 lbs.	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.

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VEGETABLES

Crop	Disease	Rate/Acre fl. oz.	Minimum Treatment Interval (days)	Instructions
Bean (Dry, Green)	Brown Spot, Common Blight, Halo Blight	19.2-25.6 **4.74 lbs.	7	For protective sprays, make first application when plants are 6 inches high; repeat on a 7 to 14 day schedule depending on environmental conditions. Use the higher rates for more severe disease.
Beet (Table Beet, Beet Greens)	Cercospora Leaf Spot	19.2-32 **7.86 lbs	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	Alternaria Leaf Spot, Cercospora Leaf Spot	19.2 **5.0 lbs.	7	Begin applications when disease first threatens and repeat at 7 to 14 day intervals depending on disease severity.
Celery Celeriac	Bacterial Blight, Cercospora Early Blight, Septoria Late Blight	19.2 **5.3 lbs.	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.
Crucifers (Broccoli, Brussel Sprout, Cabbage, Cauliflower, Collard Greens, Mustard Greens, Turnip Greens)	Black Leaf Spot (*Alternia*) Black Rot (*Xanthomonas*) Downy Mildew	19.2-25.6 **2.65 lbs.	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)	Alternaria Leaf Spot, Angular Leaf Spot, Anthracnose, Downy Mildew, Gummy Stem Blight, Powdery Mildew, Watermelon Bacterial Fruit Blotch (Suppression)	19.2-25.6 **5.25 lbs.	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	Alternaria Blight, Anthracnose, Phomopsis	19.2 **7.9 lbs.	7	Begin applications prior to development of disease symptoms. Repeat sprays at 7 to 10 day intervals depending on disease severity.

Okra	Anthracnose, Bacterial Leaf Spot, Leaf Spots, Pod Spot, Powdery Mildew	19.2-32 **5.25 lbs.	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	Bacterial Blight, Downy Mildew, Purple Blotch	19.2 **6.0 lbs.	7	Begin when plants are 4 to 6 inches high and repeat at weekly intervals. Use the higher rates when conditions favor disease.
Pea	Powdery Mildew	19.2-25.6 **3.95 lbs.	7	Begin application when disease symptoms first appear and repeat at weekly intervals. Use the higher rates when conditions favor disease
Pepper	Anthracnose, Bacterial Spot, Cercospora Leaf Spot	13-25 **11.85 lbs.	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.
Spinach	Anthracnose, Blue Mold, Cercospora Leaf Spot, White Rust	19.2-25.6 **3.95 lbs.	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.
Tomato (for processing only, not for fresh market)	Anthracnose, Bacterial Speck, Bacterial Spot, Early Blight, Gray Leaf Mold, Late Blight, Septoria Leaf Spot	19.2-32 **17.4 lbs.	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	Cercospora, Leaf Spot	19.2 **2.12 lbs.	7	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 crop. Apply using ground spray equipment at no less than 50 gallons of spray solution per acre.

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VINES

Crop	Disease	Rate/Acre fl. oz.	Minimum Treatment Interval (days)	Instructions
Grape	Black Rot, Downy Mildew, Phomopsis, Powdery Mildew	19.2-32 **20.0 lbs.	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	Downy Mildew	19.2 **2.65 lbs.	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	*Erwinia herbicola, Pseudomonas flourescens, Pseudomonas syrinsae*	38.3 **6.3	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.

** Maximum Annual Load of metallic copper.

MISCELLANEOUS

Crop	Disease	Rate/Acre fl. oz.	Minimum Treatment Interval (days)	Instructions
Atemoya, Sugar Apple (Annona)	Anthracnose	25.6-38.4 **12.6 lbs.	7	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease.
Carambola	Anthracnose	38.4-64 **10.5 lbs.	7	Make initial application before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease.
Chives	Downy Mildew	19.2 **2.65 lbs.	7	Begin application when plants are established in the field. Repeat every 7 to 10 days depending on disease conditions.
Dill	Phoma Leaf Spot, Rhizoctonia Foliage Blight	19.2-25.6 **3.95 lbs.	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.
Guava	Anthracnose, Red Algae	25.6-38.4 **4.92 lbs.	7	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease.
Litchi	Anthracnose	25.6-38.4 **4.92 lbs.	7	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Use the higher rates for severe disease.
Macadamia	Anthracnose	38.4-64	7	Initiate sprays at first sign of flowering and repeat on a wekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease.

	Phytophthora Blight (*P. capsici*), Raceme Blight (*Botrytis cinerea*)	38.4-64 **9.44 lbs.	7	Apply during Raceme development and bloom periods. Apply in sufficient water for thorough coverage. Use the higher rates when conditions favor disease.
Mamey Sapote	Algal Leaf Spot	38.4-64 **8.4 lbs.	14	Apply when conditions favor disease development. Repeat on a 14 to 30 day schedule as disease severity and environmental conditions dictate. Use the higher rates when conditions favor disease.

** Maximum Annual Load of metallic copper.

ORNAMENTALS

Crop	Maximum per Application Rate (lbs. Cu^2+/A)	Maximum Annual Rate (lbs. Cu^2+/A)	Minimum Retreatment Interval (days)	Instructions
Lilies, Easter	2.5	75	7	Maximum of 75 pounds of metallic copper may be applied in a 12 month period. Do not apply any additional copper pesticide to this land for 36 months.
All Other Ornamentals	2	20	7	

TURFGRASS

Crop	Maximum per Application Rate (lbs. Cu2+/A)	Maximum Annual Rate (lbs. Cu2+/A)	Minimum Retreatment Interval (days)	Instructions
Turfgrass	3	21	10	Treat turfgrass for black algae and moss with a mix of 6 fl. oz of product per 10 gallons of water. Apply spray mix to 1000 sq. ft. of infested grass.

Refer to the tables below for the specific diseases by plant type (non-food) that can be treated by ALONGLIFE®. See the ornamentals chart for maximum rates of application and minimum retreatment intervals.

TROPICAL FOLIAGE PLANTS

Plant	Disease
Dracaena	Rust
Ferns	Rhizoctonia, Botrytis, Erwinia
Philodendron Selloum	Fireblight
Ivy	Botrytis, Xanthomonas
Palms	Botrytis, Erwinia, Pseudomonas, Xanthomonas

Tropical foliage (most all)	Botrytis, Powdery Mildew, Erwinia, Pseudomonas, Xanthomonas

ANNUAL / PERENNIAL FLOWERING PLANTS

Plant	**Disease**
Alyssum	Botrytis, Downy Mildew
Anemone	Powdery Mildew
Aster	Powdery Mildew
Begonia	Botrytis, Powdery Mildew, Xanthomonas
Carnation	Powdery Mildew
Chrysanthemum	Pseudomonas
Coleus	Powdery Mildew
Columbine	Powdery Mildew
Conef lower	Powdery Mildew
Coreopsis	Powdery Mildew
Cuphea	Powdery Mildew
Dahlia	Powdery Mildew
Daisy	Powdery Mildew
Dianthus	Powdery Mildew
Daylily	Powdery Mildew
Delphinium	Powdery Mildew
Echinacea	Powdery Mildew
Fuchsia	Botrytis, Powdery Mildew
Geranium	Botrytis, Rust, Pseudomonas, Xanthomonas
Hollyhock	Powdery Mildew
Hosta	Botrytis, Erwinia
Impatiens	Botrytis, Powdery Mildew, Phytophthora, Alternaria, Pseudomonas
Lantana	Powdery Mildew
Liatris	Powdery Mildew
Lisianathus	Botrytis, Erwinia, Pseudomonas, Xanthomonas

Lobelia	Powdery Mildew
Lupine	Powdery Mildew
Marigold	Powdery Mildew
Monarda	Powdery Mildew
New Guinea Impatiens	Botrytis, Powdery Mildew
Pansy	Botrytis, Phytophthora
Pentas	Powdery Mildew
Periwinkle	Botrytis, Phytophthora
Petunia	Powdery Mildew
Phlox	Powdery Mildew
Poppy	Powdery Mildew
Primrose (Primula)	Powdery Mildew, Botrytis, Erwinia
Ranunculus	Powdery Mildew
Rudbeckia	Powdery Mildew
Salvia	Powdery Mildew
Sedum	Powdery Mildew
Snapdragon	Botrytis, Downy Mildew, Rust
Verbena	Powdery Mildew
Veronica	Powdery Mildew
Vinca	Powdery Mildew
Viola	Powdery Mildew
Zinnia	Botrytis, Powdery Mildew, Pseudomonas, Xanthomonas

NURSERY PLANTS

Plant	**Disease**
Cherry Laurel	Xanthomonas
Conifers	Botrytis, Diplodia
Crape Myrtle	Botrytis, Powdery Mildew

Dogwood	Botrytis, Powdery Mildew
Elm	Erwinia
Hydrangea	Botrytis, Powdery Mildew
Indian Hawthorne	Botrytis, Entemosporium
Japanese Maple	Botrytis, Verticillum, Pseudomonas
Lilac	Botrytis, Pseudomonas, Powdery Mildew
Oak	Anthracnose
Photinia	Entemosporium
Pinus	Dothistroma
Cotoneaster, Malus	Apple Scab
Mountain Ash	Botrytis
Ornamental Crab-apple	Fireblight
Rhododendron	Botrytis, Cylindrocladium, Rhizoctonia
Silver Buttonwood	Powdery Mildew
Sycamore	Anthracnose, Botrytis

POTTED FLOWERING PLANTS

Plant	**Disease**
African Violet	Botrytis, Powdery Mildew
Calla Lilly	Botrytis, Erwinia
Chrysanthemum	Botrytis, Crown Gall, Erwinia, Powdery Mildew
Cineraria	Botrytis
Cyclamen	Botrytis, Erwinia
Daffodil	Botrytis
Easter Lilly	Botrytis
Exacum	Botrytis
Gerbera	Botrytis, Powdery Mildew
Gloxinia	Botrytis
Hibiscus	Botrytis, Pseudomonas, Xanthomonas

Holiday Cactus	Botrytis, Erwinia, Pseudomonas, Xanthomonas
Hyacinth	Botrytis
Hydrangea	Botrytis, Powdery Mildew
Iris	Botrytis, Erwinia
Kalanchoe	Botrytis, Erwinia, Powdery Mildew
Poinsettia	Botrytis, Powdery Mildew, Erwinia, Scab, Xanthomonas
Rose Bush	Botrytis, Cylindrocladium, Downy Mildew, Powdery Mildew, Black Spot
Spathiphyllum	Cylindrocladium, Phytophthora, Botrytis, Cylindrocladium
Tulip	Botrytis
Azalea	Anthracnose, Botrytis, Cylindrocladium

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 ALONGLIFE®. Always rinse equipment free and clean of ALONGLIFE® each night with plenty of fresh, clean water. Always store ALONGLIFE® above 32ºF. Freezing may cause product separation. Seller makes no warranty for the performance of product which has been frozen.

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. ALONGLIFE® will freeze. Always keep container closed. Store ALONGLIFE® in its original container only. Bulk ALONGLIFE® 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 ALONGLIFE® 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 instructions, 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, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For Refillable Containers: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full of water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

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 instructions, 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.