ScPR® Specimen Label



COPPER GROUP CLASSIFIED HERBICIDE

# **AQUATIC HERBICIDE**

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For use in still or flowing water sites including: golf course, ornamental, fish, and fire ponds; fresh water lakes, ponds, reservoirs, fish hatcheries, industrial waters to include cooling water sources and hydroelectric reservoirs, crop and non-crop irrigation and drainage systems (canals, streams, ditches, and laterals), and potable water reservoirs.

Active Ingredient	
Copper ethylenediamine complex <sup>†</sup> (CAS# 13426-91-0)	22.9%
Other Ingredients	<u>77.1%</u>
TOTAL	100.0%
<sup>†</sup> Metallic copper equivalent = 8%	

# KEEP OUT OF THE REACH OF CHILDREN WARNING / AVISO

FIRST AID					
If swallowed	Call a poison control center or doctor immediately for treatment advice.				
<ul> <li>Have person sip a glass of water if able to swallow.</li> </ul>					
	• Do not induce vomiting unless told to do so by a poison control center or doctor.				
	<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>				
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.				
lf on skin or	Take off contaminated clothing.				
clothing	Rinse skin immediately with plenty of water for 15 - 20 minutes.				
	Call a poison control center or doctor for treatment advice.				
If in eyes	• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.				
	Remove contact lenses, if present, after the first 5 minutes, then continue				
	rinsing eye.				
	Call a poison control center or doctor for treatment advice.				
HOTLINE NUMBER					
Have the product container or label with you when calling a poison control center or doctor, or going					
for treatment. In case of emergency endangering health or the environment involving this product,					
call INFOTRAC	at <b>1-800-535-5053.</b>				

## PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Warning. May be fatal if swallowed. May be fatal if inhaled. Do not breathe vapor or spray mist. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

## Applicators and other handlers <u>must</u> wear:

- Long-sleeve shirt and long pants;
- Shoes plus socks; and
- Chemical-resistant gloves (such as nitrile or butyl rubber).

Exception: Aquatic Subsurface Application or Closed Application System

After Komeen has been diluted or tank mixed with water, users must, at a minimum, wear (**Note** - Mixers and loaders for this application method must still wear the PPE as described in the above section):

- Long-sleeved shirt and long pants; and
- 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.

## ENGINEERING CONTROLS

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:

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

# **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 with repeated applications. 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. Read all directions for use carefully before applying this product. Use only according to label directions.

Do not apply Komeen in a way that will contact workers or other persons, either directly or through drift; only protected handlers may be in close proximity to the mixing area or application equipment while in use. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

### **PRODUCT INFORMATION**

Komeen<sup>®</sup> controls many submersed and floating aquatic plant species including hydrilla (*Hydrilla verticillata*), Brazilian elodea (*Egeria densa*), naiad (*Najas* spp.), coontail (*Ceratophyllum demersum*), elodea (*Elodea canadensis*), water lettuce (*Pistia stratiotes*), water fern (*Salvinia* and *Azolla* spp.), duckweed (*Lemna* and *Landoltia* spp.), water hyacinth (*Eichhornia crassipes*) and other submersed and floating aquatic weed species that are sensitive to copper. Under certain water quality conditions, such as low water hardness, Komeen may also control Eurasian watermilfoil (*Myriophyllum spicatum*), sago pondweed (*Potamogeton pectinatus*) and American pondweed (*Potamogeton nodosus*).

Komeen can also be effective in controlling various filamentous and macro algae, such as *Cladophora, Pithophora, Hydrodictyon, Chara*, and *Nitella*, in the same use sites.

Treatment with this product will not by itself make water potable. 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 any waters during any single application.

### **Treatment Notes**

Apply when weeds are actively growing. The most copper sensitive weed species require a minimum of three (3) to twenty-four (24) hours of contact with Komeen in order to provide effective control. Less susceptible species may require longer contact times or higher doses. Significant water movement may result in dilution of the treated water and reapplication may be necessary. Susceptible aquatic weeds will generally drop below the surface of the water within 3 to 14 days after treatment. If this effect is not observed, Komeen may be re-applied after a minimum of 14 days after the initial application. Once weeds drop below the surface, it can take up to 6 weeks to realize the full effect of the treatment.

Komeen may be applied by aircraft, sprayer or spray boat as a surface spray, as a subsurface application through weighted hoses, or through injection equipment. Komeen may be applied in combination with other aquatic herbicides and algaecides, or mixed with adjuvants, a polymer (except CA), or surfactants as appropriate. As a surface or subsurface application, Komeen may be applied diluted or undiluted, whichever is most suitable to ensure uniform coverage of the treated area. Apply to the area where the greatest concentration of target plants or algae are located, and in a manner that will deliver the herbicide to the target organism.

Dilution with water may be necessary at the lower application rates to ensure uniform coverage of the treated area. Dilute the required amount of Komeen with enough water to ensure even distribution with the type of equipment being used.

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 and wait at least 14 days between treatments to avoid depletion of oxygen due to decaying vegetation (excluding water infrastructure and constructed conveyances such as drainage canals, ditches and pipelines or intakes and aqueducts for drinking water or irrigation use). 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 ( $\leq$ 6.5), low dissolved organic carbon (DOC) levels (3.0 mg/L or lower), and "soft" waters (i.e. alkalinity less than 50 mg/L), increase 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 koi, trout and other sensitive species of fish may be killed under such conditions.

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.

# **Resistance Management**

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.

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.

Report any incidence of non-performance of this product against a particular weed species to your retailer, or local SePRO representative at 1-800-419-7779. 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 SePRO representative at 1-800-419-7779, 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 or your local conditions. Tank mix products so that there are multiple effective mechanisms of actions for each target weed.

# Restrictions

- DO NOT enter or allow others to enter treatment area until application is complete.
- **DO NOT** apply Komeen directly to, or otherwise permit it to come into contact with any desirable plants as injury may result.
- **DO NOT** apply in such a way that concentrated product comes in contact with crops, ornamentals, grass or desirable plants.
- Pilots must use an enclosed cab that meets the definition listed in the WPS for agricultural pesticides (40 CFR 170.305).

## Precautions

• Wash spray equipment thoroughly before and after each application.

# **APPLICATION DIRECTIONS**

In lakes, reservoirs, and ponds, the application site is defined by this label as the specific location where Komeen is applied. Use the lower listed rate in soft water (less than 50 ppm alkalinity), for light infestations and less mature plants; use the higher concentration in hard water (above 50 ppm alkalinity), for dense infestations and when targeting more mature vegetation.

For aquatic weed control (including vascular plants and algae), do not exceed 1.0 ppm metallic copper (3.34 gallons of product or 2.74 lbs metallic copper per acre-foot) during any single application. When treating aquaculture ponds when fish are present, do not exceed a concentration of 0.4 ppm during any single application when targeting nuisance algae.

## Whole Waterbodies

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).

## Water Management Units

For large waterbodies such as lakes and reservoirs that support aquatic habitat, this product may be applied in multiple individual treatments to different, discreet sections of a waterbody, or water management units, within the 14-day retreatment interval, provided that the sum of those areas together constitute no more than half of the total area of the entire waterbody. 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.

# **Pre-Application Dose Determination**

For algae and aquatic plant treatments, applicators should conduct initial dose determination test 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.

TABLE 1 Application Concentrations for Submersed Aquatic Weed Control			
Weed Species	Metallic Copper Level Required For Control (ppm)		
Brazilian elodea (Egeria densa),			
Coontail (Ceratophyllum demersum),			
Elodea (Elodea canadensis),	0.50 - 1.0		
Naiad (Najas spp.),			
Sago pondweed (Potamogeton pectinatus) <sup>†</sup>			
American pondweed (Potamogeton nodosus) <sup>†</sup> ,			
Eurasian watermilfoil (Myriophyllum spicatum) <sup>†</sup> ,			
Hydrilla (Hydrilla verticillata),	0.75 - 1.0		
Pondweed spp. (Potamogeton spp.),			
Other susceptible submersed species			

When treating slow-moving water, apply the spray solution counter to the flow of water.

<sup>†</sup> Control generally only in low water hardness.

Komeen can also be effective on many species of algae at concentrations ranging from 0.2 to 1.0 ppm metallic copper. Follow the use directions described for aquatic weeds.

TABLE 2 Foliar Application Rates for Floating Aquatic Weed Control				
Weed Species	ppm metallic copper			
Duckweed (Lemna, Landoltia, and Spirodela spp.)	0.75 - 1			
Water fern (Salvinia and Azolla spp.)				
Water hyacinth (Eichhornia crassipes)				
Water lettuce (Pistia stratiotes)	0.5 - 0.75			

<sup>†</sup> The addition of a surfactant is recommended to improve efficacy on floating plants. Follow surfactant product labeling instructions for application rates and use directions. Add Komeen and appropriate surfactant to a recommended minimum of 50 gallons of spray solution per surface acre. Use an adequate spray volume to ensure good coverage of the plant. Do not exceed 3.34 gallons of Komeen per acre foot.

# **Application Rate Calculation**

**For large bodies of water**, determine the size (in acres) and the average depth (in feet) of the area to be treated. Application rates are calculated by using the following formula to obtain the appropriate copper concentration:

Desired concentration of copper (ppm) x Average depth of water (feet) x 3.34	=	Gallons
of Komeen per surface acre		

TABLE 3			
Average Water Depth of Treatment Site (feet)	Gallons of Komeen per Surface Acre to Achieve the Desired Copper Concentration		
	0.5 ppm	0.75 ppm	1.0 ppm
1	1.7	2.5	3.3
2	3.3	5.0	6.6
3	5.0	7.5	10.0
4	6.7	10.0	13.3
5	8.4	12.5	16.7
6	10.0	15.0	20.0
7	11.7	17.5	23.3
8	13.4	20.0	26.7
9	15.0	22.5	30.0
10	16.7	25.1	33.4

<sup>†</sup> For surface applications, dilute Komeen with water in a minimum ratio of 4:1 (Komeen:water). For subsurface applications, no dilution is required.

For smaller bodies of water, determine the size (in square feet) and the average depth (in feet) of the area to be treated.

TABLE 4			
Average Water Depth of Treatment Site (feet)	Fluid Ounces <sup>†</sup> of Komeen per 1,000 ft <sup>2</sup> to Achieve the Desired Copper Concentration		
	0.5 ppm	0.75 ppm	1.0 ppm
1	5.0	7.3	9.7
2	9.8	14.7	19.3
3	14.7	22.1	29.0
4	19.6	29.4	39.0
5	24.5	36.8	49.0
6	29.4	44.2	58.7
7	34.4	51.5	68.4
8	39.3	58.9	78.4
9	44.2	66.2	88.1
10	49.1	73.6	98.1

<sup>+</sup> When treating low volumes and measurements in tablespoons is desired, multiply the volume in fluid ounces by 2 to get the volume in tablespoons (one fluid ounce contains two tablespoons).

<sup>††</sup> For surface applications, dilute Komeen with water in a minimum ratio of 4:1 (Komeen:water). For subsurface applications, no dilution is required.

# **METHODS OF APPLICATION**

### Surface Application

Spray Komeen from shore or boat across the surface of the targeted area. Surface applications generally are recommended near shorelines and in shallower waters, and may be made from shore into shallow water.

### **Subsurface Application**

In deeper water, it is recommended to make a subsurface application of Komeen at listed rates through weighted trailing hoses in order to deliver application mix to the water depth of target vegetation. Do not drag hoses on the bottom. Do not exceed 3.34 Gallons of Komeen per acre foot.

### Adjuvants/Surfactants

Adjuvants or surfactants may be added to Komeen or to a Komeen/water premix to improve efficacy. Silicone surfactants are not recommended for use on floating plants as they generally can cause the plant to sink causing the spray solution to be washed off the plant. Adjuvants/surfactants may also enhance performance on other species. Consult the manufacturer's recommendations regarding the use of these products for improved control.

### **Aerial Application**

Dilute Komeen with water in a minimum ratio of 4:1 (Komeen:water). Apply the listed rate of Komeen in a recommended minimum of 10 gallons of total spray solution per surface acre. Add the listed rates of a drift control or sinking agent to the spray solution. Maintain constant agitation during addition of a polymer (except CA – polymers not approved for use with Komeen) and continue throughout the application.

# Drip System or Metering Pump Application For Flowing Water Treatments

For use in potable water, canals, ditches, and irrigation and drainage systems.

For optimal control, apply Komeen as soon as submersed macrophytes or algae begin active growth or interfere with normal delivery of water (clogging of lateral head gates, suction screens, weed screens, and/or siphon tubes). Delaying treatment could perpetuate the problem causing massing and compacting of biomass. Heavy infestations and low flows may result in poor distribution resulting in unsatisfactory control. Under these conditions repeated applications or increasing the water flow rate during application may be necessary.

To achieve desired control with Komeen in flowing waters, maintain a minimum exposure period of three hours at a concentration of 0.5 to 1.0 ppm. Other factors to consider include: plant species, density of infestation and water temperature and hardness. Longer contact times and the highest rates may be required for less susceptible species or in difficult treatment conditions (e.g. dense weed beds, hard water, fast flowing water).

Prior to treatment it is important to accurately determine water flow rates. In the absence of weirs, orifices, or similar devices, which give accurate waterflow measurements, volume of flow can be estimated by the following formula:

# Cubic feet per second (cfs) = average width (feet) x average depth (feet) x average velocity<sup>†</sup> (feet/second) x 0.9

<sup>+</sup> The velocity can be estimated by determining the length of time it takes a floating object to travel a defined distance. Divide the distance (feet) by the time (seconds) to estimate velocity (feet/seconds). This measure should be repeated 3 times at the intended application site to calculate the average velocity.

After accurately determining the water flow rate in cfs or gallons/minute, find the corresponding Komeen rate in Table 5 or use the formula below.

	TABLE 5				
	Application Rates for Flowing Water				
Water F	Water Flow Rate		Komeen Drip Rate		
cfs	gal/min.	PPM Copper	Quart/ hr	ml / min	
1	450	0.5 - 1.0	0.55 - 1.1	8.7 – 17.3	
2	900	0.5 - 1.0	1.1 - 2.2	17.3 – 34.7	
3	1,350	0.5 - 1.0	1.65 - 3.3	26.0 - 52.0	
4	1,800	0.5 - 1.0	2.2 - 4.4	34.7 - 69.4	
5	2,250	0.5 - 1.0	2.75 - 5.5	43.4 - 86.7	
10	4,500	0.5 - 1.0	5.5 - 11	86.7– 173.4	
100	45,000	0.5 - 1.0	55 - 110	867.2 - 1,734.3	

cfs X 1.1 X desired concentration of metallic copper (ppm) = quarts/hour of application

Calculate the amount of Komeen needed to maintain the drip rate for a treatment period of 3 hours by multiplying either:

# Quart(s) / hour x 3; Milliliters / Minute x 180; or Fluid ounces / Minute x 180.

Rates will target up to 1.0 ppm copper concentration in the treated water for the treatment period. Lower concentrations may be used on susceptible plant species or if longer exposure/injection times are maintained. Introduction of Komeen should be made in the channel at weirs or other turbulencecreating structures to promote the dispersion of the chemical. For injection periods longer than three hours, calculate the amount of Komeen needed by multiplying the rate by desired time in minutes or hours as appropriate.

Use a drum or tank equipped with a valve or other volume control device that can be calibrated to maintain a constant drip rate. Use a stopwatch and appropriate measuring container to set the desired drip rate. Readjust accordingly if the canal flow rate changes during the treatment period. A small pump or other metering device may be used to meter Komeen into the water more accurately. Application can be made using diluted or undiluted material.

Results can vary depending upon species and density of vegetation, desired distance of control and flow rate, and impact of water quality on Komeen and efficacy. Periodic maintenance treatments may be required to maintain seasonal control (every 2 to 6 weeks). In addition, Komeen can be used in a rotational program with other herbicides labeled for flowing water for an integrated management

approach. It is recommended to consult a SePRO Technical Specialist to determine optimal use rate location of treatment stations and duration of treatment period under local conditions.

### **Pulse Application Method**

This method may only be used in constructed irrigation conveyance systems, laterals and aqueducts. Do not use this method of application in locations with functioning potable water intakes at or downstream from the application site.

For optimal control, apply as soon as algae begin active growth or interfere noticeably with normal delivery of water. Heavy infestations and low flow may cause poor distribution resulting in unsatisfactory control. Under these conditions repeated applications or increasing water flow rate during application may be necessary. Maximum annual application rate of 13 lbs metallic copper per year per 5 miles of conveyance per cubic foot per second (CSF). Apply product into irrigation conveyance system or lateral at up to a maximum rate of 0.5 lbs metallic copper (0.63 gallons of product) per cubic foot per second of water per 5 to 30-mile treatment depending on water hardness, alkalinity and algae concentration. High water hardness or alkalinity levels may require the use of higher rates within the rate range above to achieve control. When velocity levels are higher (>1 foot per second) distance between drop stations for pulse applications can be increased.

### Irrigation Ponds or Reservoirs

When applying to irrigation ponds or reservoirs, it is best to hold water for a minimum of 3 hours before irrigating to ensure proper exposure of Komeen at targeted rates to plants. If water is to be continually pumped from the treated system during application, application techniques (drip, injection, or multiple spray applications) should be made to compensate for dilution of Komeen within the targeted area.

### Tank Mix

Komeen may be tank mixed with other herbicides for control of a broader weed spectrum. Do not mix concentrates in tank without first adding water. To ensure compatibility, a jar test is recommended before field application. Komeen must not mixed with any product containing a label prohibition against such mixing and must be used in accordance with the more restrictive of the label limitations and precautions. Do not exceed any label dosage rates.

## Komeen + Sonar<sup>®</sup> (e.g. Sonar A.S., Sonar Genesis) Tank Mix

Komeen can be mixed with Sonar to broaden the submersed weed control spectrum of either product alone and be applied as a uniform surface spray or injected under the water's surface. For best results, apply this tank mix at a minimum of 0.5 ppm Komeen and a low to moderate rate of Sonar. Lower concentrations may be effective on more susceptible species and under certain conditions.

### Komeen + Diquat Tank Mix

Komeen can be mixed with diquat (diquat dibromide) for enhanced control of certain weed species including bladderwort, curlyleaf pondweed, leafy pondweed, Richardson's pondweed, small pondweed, cattail, elodea, duckweed, water lettuce, Eurasian watermilfoil, floating-leaf pondweed, coontail, salvinia, naiad, sago pondweed, pennywort, Chara, hydrilla and water hyacinth. For best results, apply Komeen/diquat (e.g. Littora<sup>®</sup>) combinations in a 2:1 ratio of Komeen:Diquat. Do not exceed maximum labeled rates for any product. For hydrilla control and control of other species with high sensitivity to copper, lower rates of Komeen may also enhance the activity of diquat. Komeen must be applied at a minimum of 0.1 ppm in combination with diquat. Higher rates may be needed in areas with dense weeds.

# Komeen + Endothall Tank Mix

Komeen can be mixed with endothall and applied as a uniform surface spray or injected under the water's surface for control of species including naiad, curlyleaf pondweed, elodea, coontail, watermilfoil, water stargrass, eelgrass, *Cladophora*, *Pithophora*, *Spirogyra*, *Chara*, American pondweed and sago pondweed. For best results, apply Komeen/endothall combinations at a recommended ratio of 4:3 v/v Komeen to endothall formulated product (e.g., Aquathol<sup>®</sup> K/ Hydrothol<sup>®</sup> 191).

## Spray Drift Management

### Aerial Applications

- 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 Applications**

- Apply with the spray release height recommended by the manufacturer, but no more than 4 feet above the water surface.
- 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 manufacturers 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.

# STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

**Pesticide Storage:** Store in a cool dry place. Do not store near feed or foodstuffs. In case of leak or spill, use absorbent materials to contain liquids and dispose in a manner consistent with the pesticide disposal instructions.

**Pesticide Disposal:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

## Container Handling

**Non-refillable Container. DO NOT reuse or refill this container.** Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity  $\leq$  5 gallons) 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.

**Triple rinse containers too large to shake (capacity > 5 gallons) as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

**Pressure rinse as follows:** Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

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**Misuse**: Federal law prohibits the use of this product in a manner inconsistent with its label directions. To the extent consistent with applicable law, the buyer assumes responsibility for any adverse consequences if this product is not used according to its label directions. In no case shall SePRO Corporation be liable for any losses or damages resulting from the use, handling or application of this product in a manner inconsistent with its label.

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