Scerre Label

FLURIDONE GROUP 12 HERBICIDE

# Sonar Genesis®

Aquatic Herbicide

For management of freshwater aquatic vegetation in ponds, lakes, reservoirs, potable water sources, drainage canals and irrigation canals.

For use in New York State, comply with Section 24 (C) Special Local Need labeling for Sonar Genesis, SLN NY

# Active Ingredient

Fluridone: 1-methyl-3-phenyl-5-[3-(trifluoromethyl)phenyl]-4(1	<i>I</i> )-pyridinone
Other Ingredients	
TOTAL	
Contains 0.5 pounds active ingredient per gallon.	

# Keep Out of Reach of Children DANGER / PELIGRO

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

FIRST AID		
If in eyes	Hold eye open and rinse slowly and gently with water for 15 to 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.	
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 on skin or	Take off contaminated clothing.	
clothing	<ul> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> </ul>	
_	Call a poison control center or doctor for treatment advice.	
HOTLINE NUMBER		
Have the produ	ct container or label with you when calling a poison control center or doctor, or	
	ent. In case of emergency endangering health or the environment involving this	
product, call INFOTRAC at 1-800-535-5053.		
<b>NOTE TO PHYSICIAN</b> : Probable mucosal damage may contraindicate the use of gastric lavage.		

# **PRECAUTIONARY STATEMENTS**

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Danger. Corrosive. Causes irreversible eye damage. Harmful if swallowed. Avoid contact with skin. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Wear long-sleeved shirt and long pants, socks, shoes, and chemical resistant (barrier laminate, butyl rubber  $\geq$  14 mils, natural rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, polyethylene, polyvinyl chloride (PVC)  $\geq$  14 mils, or viton  $\geq$ 14 mils) gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

# Gloves are required for the following application scenarios:

- Mixing/loading/applying with hand wand sprayer to ponds/lakes or static canals.
- Mixing/loading/applying with backpack sprayer to static canals.

# ENGINEERING CONTROLS (AIRCRAFT)

Aircraft pilots must use an enclosed cab that meets the definition listed in the WPS for agricultural pesticides 40 CFR 170.305. \*

\* Not for use in California.

# **ENVIRONMENTAL HAZARDS**

Do not apply to water except as specified on the label. Do not apply directly to tidal saltwater sites. Do not contaminate water by disposal of equipment washwaters. Lowest rates should be used in shallow areas where the water depth is considerably less than the average depth of the entire treatment site, for example, shallow shoreline areas. Trees and shrubs growing in water treated with this product may occasionally develop chlorosis. Follow use directions carefully so as to minimize adverse effects on non-target organisms.

# Non-Target Organisms Advisory Statement

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

# 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.

**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 requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Ensure spray drift to nontarget susceptible species does not occur.

DO NOT apply this product in any manner not specifically described in this label.

Observe all cautions and limitations on this label and on the labels of products used in combination with this product. It is the pesticide user's responsibility to ensure that all products in the listed *Sonar Genesis*<sup>®</sup> *EPA Reg. No.* 67690-54 *Page* 2 of 14

mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. **DO NOT** use this product other than in accordance with the instructions set forth on this label. Keep containers closed to avoid spills and contamination.

# IN CASE OF EMERGENCY

In case of large-scale spillage regarding this product, call INFOTRAC at 1-800-535-5053. In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- INFOTRAC: 1-800-535-5053

Steps to be taken in case material is released or spilled:

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing, and wash affectedskin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

# **PRODUCT INFORMATION**

This product is a selective systemic aquatic herbicide for management of freshwater aquatic vegetation in ponds, lakes, reservoirs, drainage canals and irrigation canals, including dry or dewatered areas of these sites. It is absorbed from water by plant shoots and from hydrosoil by the roots of aquatic vascular plants. For in-water treatments, it is important to maintain the specified concentration of this product in contact with the target plants for a minimum of 45 days. Rapid water movement or any condition which results in rapid dilution of this product in treated water will reduce its effectiveness. In susceptible plants, this product inhibits the formation of carotene. In the absence of carotene, chlorophyll is rapidly degraded by sunlight. Herbicidal symptoms appear in seven to ten days and appear as white (chlorotic) or pink growing points in many susceptible plant species. Under optimum conditions, a minimum of 30 to 90 days may be required before the desired level of aquatic plant management is achieved. Plant species susceptibility may vary depending on time of year, stage of growth, and water movement. For best results, apply this product prior to initiation of weed growth or when weeds begin active growth. Application to mature target plants may require an application rate at the higher end of the specified rate range and may take longer to control.

This product is not corrosive to application equipment.

This label provides recommendations on the use of a laboratory analysis for the active ingredient. SePRO Corporation recommends the use of high-performance liquid chromatography (HPLC) for the determination of fluridone concentrations in water. It is recommended to contact SePRO Corporation for the incorporation of this test, known as a FasTEST, in a treatment program. FasTEST is referenced in this label as the preferred method for the rapid determination of the active ingredient in water. Other proven chemical analyses for the active ingredient may also be used.

Application rates and calculations for this product are provided to achieve a desired concentration of fluridone in parts per billion (ppb). The maximum application rate or sum of all application rates is 90 ppb in ponds and 150 ppb in lakes, reservoirs and static canals per annual growth cycle. For purposes of this product's labeling, a pond is defined as a body of water 10 acres or less in size. A lake or reservoir is greater than 10 acres. This maximum concentration is the amount of product

calculated as the target application rate, NOT determined by testing the concentration of fluridone in the treated water.

# Weed Resistance Management

For resistance management, Sonar Genesis is a Group 12 herbicide. Any weed population may contain or develop plants naturally resistant to Sonar Genesis and other Group 12 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same area. Appropriate resistance management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of Sonar Genesis or other Group 12 herbicides within a growing season or among growing seasons with different herbicide groups that control the same weeds.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or pest control advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and that considers mechanical control methods, cultural (e.g., timing to favor the desirable plants and not the weeds), biological (weed-competitive varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method. Prevent movement of resistant weed seeds to other areas by cleaning equipment.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your sales representative, pest control advisors, or local extension specialist for additional pesticide resistance-management and/or integrated weed-management recommendations for specific types of plants and weed biotypes.

# **Use Restrictions**

- **Obtain Required Permits:** Consult with appropriate state or local pesticide and/or water authorities before applying this product in or around public waters. Permits and posting or treatment notification may be required by state or local public agencies.
- Chemigation: Do not apply this product through any type of irrigation system.
- **Hydroponic Farming:** Do not use water from a Sonar-treated area for hydroponic farming unless one of the following has been verified for the relevant active water intake and its withdrawal of surface water:
  - A FasTEST has been run and the concentration in water at the intake is less than 1 ppb; or
  - A filtration or water treatment process following water intake has been verified analytically to reduce the concentration in potential irrigation water below 1 ppb.

- Greenhouse and Nursery Plants: Do not use water from a Sonar-treated area for greenhouse and nursery irrigation unless one of the following has been verified for the relevant active water intake and its withdrawal of surface water:
  - For the irrigation of woody ornamental plants, a FasTEST has been run and the concentration at the intake is less than 5 ppb; or
  - For the irrigation of other greenhouse or nursery plants, the concentration is confirmed less than 1 ppb; or
  - A filtration or water treatment process following water intake has been verified analytically to reduce the concentration in potential irrigation water below either the 1 or 5 ppb levels cited above.
- Water Use Restrictions Following Applications With Sonar Genesis (Days)

Application Rate	Drinking <sup>†</sup>	Fishin g	Swimmin g	Livestock/Pet Consumption	Irrigation <sup>††</sup>
Maximum Rate (150 ppb) or less	0	0	0	0	See irrigation instructions below

<sup>†</sup> Note below, under *Potable Water Intakes*, the information for application of this product within ¼ mile (1,320 feet) of a functioning potable water intake.

<sup>++</sup> Note below, under *Irrigation*, specific time frames or fluridone concentrations that provide the widest safety margin for irrigating with treated water.

- Potable Water Intakes: In lakes and reservoirs or other sources of potable water, <u>do not apply</u> this product at application rates greater than 20 ppb within one-fourth mile (1,320 feet) of any functioning potable water intake. At application rates of 4 to 20 ppb, this product <u>may be applied</u> where functioning potable water intakes are present. NOTE: Existing potable water intakes which are no longer in use, such as those replaced by potable water wells or connections to a municipal water system, are not considered to be functioning potable water intakes.
- Aircraft pilots must use an enclosed cab that meets the definition listed in the WPS for agricultural pesticides 40 CFR 170.305. \*
   \* Not for use in California

\* Not for use in California.

# **Use Precautions**

Irrigation: Irrigation from area treated with this product may result in injury to the irrigated vegetation. Follow these precautions and inform those who irrigate from areas treated with this product of the irrigation time frames or FasTEST requirements presented in the table below. Follow the following time frames and assay directions to reduce the potential for injury to vegetation irrigated with treated water. Greater potential for crop injury occurs where treated water is applied to crops grown on low organic and sandy soils.

	DAYS AFTER APPLICATION		
		Establishe	Newly Seeded
		d	Crops/Seedbeds or Areas to
		Row	be Planted Including
	Established	Crops/	Overseeded Golf Course
Application Site	Tree Crops	Turf/Plants	Greens
Ponds and Static Canals <sup>†</sup>	7	30	Assay required
Canals	7	14	Assay required
Lakes and Reservoirs <sup>††</sup>	7	14	Assay required
Dry or De-watered Canals <sup>†††</sup>	0	0	ttt

<sup>†</sup> For purposes of this labeling, a pond is defined as a body of water 10 acres or less in size. A lake or reservoir is greater than 10 acres.

<sup>++</sup> In lakes and reservoirs where one-half or greater of the body of water is treated, use the pond and static canal irrigation precautions. When applying this product to exposed sediments of aquatic sites such as lakes and reservoirs, follow these time frames prior to using water for irrigation once sites are reflooded.

When this product is applied to exposed sediments of dry or de-watered irrigation canals, treatments must be made at least 2 weeks prior to when the canals are to be refilled, and allow canals to refill for a minimum of 24 hours before using water for irrigation.

Where the use of Sonar Genesis treated water is desired for irrigating crops prior to the time frames established above, the use of FasTEST analysis is recommended to measure the concentration of fluridone in the treated water. Where a FasTEST has determined that the fluridone concentrations are less than 10 parts per billion, there are no irrigation precautions for irrigating established tree crops, plants, row crops or turf. For tobacco, tomatoes, peppers or other plants within the Solanaceae Family and newly seeded crops or newly seeded grasses such as overseeded golf course greens, do not use treated water if measured fluridone concentrations are greater than 5 ppb. Furthermore, when rotating crops, do not plant members of the Solanaceae family in land that has been previously irrigated with fluridone concentrations in excess of 5 ppb in the previous year without direct consultation with a SePRO Aquatic Specialist. It is recommended that a SePRO Aquatic Specialist be consulted prior to commencing irrigation of these sites.

# PLANT CONTROL INFORMATION

This product's selectivity is dependent upon dosage, time of year, stage of growth, method of application and water movement. The following categories, controlled and partially controlled are provided to describe expected efficacy under ideal treatment conditions using higher to maximum label rates. Use of lower rates will increase selectivity of some species listed as controlled or partially controlled. Additional aquatic plants may be controlled, partially controlled, or tolerant to this product. It is recommended to consult a SePRO Aquatic Specialist prior to application to determine a plant's susceptibility to the planned treatment.

# Vascular Aquatic Plants Controlled

# Submersed Plants

bladderwort (*Utricularia* spp.) common coontail (*Ceratophyllum demersum*) common elodea (*Elodea canadensis*) egeria, Brazilian elodea (*Egeria densa*) fanwort, cabomba (*Cabomba caroliniana*) hydrilla (*Hydrilla verticillata*) naiad (*Najas* spp.) pondweed (*Potamogeton* spp., except Illinois pondweed) watermilfoil (*Myriophyllum* spp., including *M. spicatum* x *sibiricum* hybrids)

# **Emersed Plants**

spatterdock (*Nuphar luteum*) water-lily (*Nymphaea* spp.) watershield (*Brasenia schreberi*)

# Floating Plants

common duckweed (*Lemna minor*) Salvinia (*Salvinia spp*.)

# Vascular Aquatic Plants Partially Controlled

# Submersed Plants

Illinois pondweed (*Potamogeton illinoensis*) limnophila (*Limnophila sessiliflora*) tapegrass, American eelgrass (*Vallisneria americana*)

# **Emersed Plants**

alligatorweed (*Alternanthera philoxeroides*) American lotus (*Nelumbo lutea*) cattail (*Typha* spp.) creeping waterprimrose (*Ludwigia peploides*) parrotfeather (*Myriophyllum aquaticum*) smartweed (*Polygonum* spp.) spikerush (*Eleocharis* spp.) waterpurslane (*Ludwigia palustris*)

# Floating Plants

common watermeal (Wolffia columbiana)†

# Shoreline Grasses

barnyardgrass (*Echinochloa crusgalli*) giant cutgrass (*Zizaniopsis miliacea*) reed canarygrass (*Philaris arundinaceae*) southern watergrass (*Hydrochloa caroliniensis*) torpedograss (*Panicum repens*)

<sup>†</sup> Consult with a SePRO Aquatic Specialist about techniques to enhance efficacy of watermeal, including incorporation of Galleon S.C. Aquatic Herbicide into a treatment program, in difficult to control sites.

# MIXING AND APPLICATION DIRECTIONS

The aquatic plants present in the treatment site should be identified prior to application to determine their susceptibility to this product. It is important to determine the area (acres) to be treated and the average depth in order to select the proper application rate. Do not exceed the maximum labeled rate for a given treatment site per annual growth cycle.

This product may be applied or metered directly into the treated area or diluted with water prior to application. Add the specified amount of this product to water in the spray tank during the filling operation. Surface and subsurface application of the spray can be made with conventional spray equipment. This product can also be applied near the surface of the hydrosoil using weighted trailing hoses. A minimum spray volume of 5 to 100 gallons per acre may be used. This product may also be directly metered into the pumping system where it is diluted with water.

# **Tank Mix Directions**

This product may be tank mixed with other aquatic herbicides and algaecides to enhance efficacy and plant selectivity provided that this label does not prohibit such mixing. When tank mixing, read and follow the labeled precautionary statements, directions for use, weeds controlled, and other restrictions for each tank mix product. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. No labeled rate or dose should be exceeded. To ensure compatibility, a jar test is recommended before field application of any tank mix combination. It is recommended to consult with SePRO Corporation for latest tank mix recommendations.

**NOTE:** Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be at the exclusive risk of the user, applicator and/or application adviser, to the extent allowed by applicable law.

# Application Rate Calculation

The amount of this product to be applied to provide the desired ppb concentration of active ingredient in treated water may be calculated as follows:

**Gallons of product required** = surfaces acres X average water depth of treatment site (feet) **x** desired ppb concentration of active ingredient **x** 0.0054.

For example, the amount per acre of product required to provide a concentration of 30 ppb of active ingredient in a 1 acre pond with an average depth of 5 feet is calculated as follows:

1 acre x 5 feet x 30 ppb x 0.0054 = 0.81 gallons per treated surface acre or
0.81 gallons x 4 quarts/gallon = 3.2 quarts per treated surface acres or
0.81 gallons x 128 ounces/gallon = 104 ounces per treated surface acre

# **Application to Ponds**

This product may be applied to the entire surface area of a pond. For single applications, rates may be selected to provide 30 to 90 ppb to the treated water. Use the higher rate within the rate range where there is a dense weed mass, when treating more difficult to control species, and for ponds less than 5 acres in size with an average depth less than 4 feet. Application rates necessary to obtain these concentrations are shown in the following table. For additional application rate calculations, refer to the *Application Rate Calculation* section of this label. Split or multiple applications may be used to control more difficult target plants and/or where dilution of treated water is anticipated; however, the sum of all applications must not exceed a total of 90 ppb per annual growth cycle.

Average Water Depth of Treatment Site	Gallons of product per Treated Surface Acre <sup>†</sup>	
(feet)	30 ppb	90 ppb
1	0.16	0.48
2	0.32	0.97
3	0.48	1.45
4	0.64	1.94
5	0.81	2.43
6	0.97	2.91
7	1.13	3.40
8	1.29	3.88
9	1.45	4.37
10	1.62	4.86

<sup>†</sup>To calculate the number of quarts of product required, use the calculation as follows: gallons per surface acre x 4 quarts/gallon = quarts per surface acre

For example: targeting a concentration of 30 ppb in a one acre pond with average depth of 5 feet would require 0.81 gallons or 3.2 quarts.

# Application to Lakes and Reservoirs

The following treatments may be used for treating both whole lakes or reservoirs and partial areas of lakes or reservoirs (bays, etc.). For best results in treating partial lakes and reservoirs, treatment areas should be a minimum of 5 acres in size. Treatment of areas smaller than 5 acres or treatment of narrow strips such as boat lanes or shorelines may not produce satisfactory results due to dilution by untreated water. Rate ranges are provided as a guide to include a wide range of environmental factors, such as, target species, plant susceptibility, selectivity and other aquatic plant management objectives. Application rates and methods should be selected to meet the specific lake/reservoir aquatic plant management goals.

# Whole Lake or Reservoir Treatments (Limited or No Water Discharge) <u>Single Application to Whole Lakes or Reservoirs</u>

Where single applications to whole lakes or reservoirs are desired, this product may be applied at an application rate of 10 to 90 ppb. Application rates necessary to obtain these concentrations in treated water are shown in the following table. For additional rate calculations, refer to the *Application Rate Calculation* section of this label. Choose an application rate from the table below to meet the aquatic plant management objective. Where greater plant selectivity is desired such as when controlling Eurasian watermilfoil and curlyleaf pondweed, an application rate lower in the rate range may be chosen. For other plant species, it is recommended to contact a SePRO Aquatic Specialist for determining when to choose application rates lower in the rate range to meet specific plant management goals. Use the higher rate within the rate range where there is a dense weed mass or when treating more difficult to control plant species. Retreatments may be required to control more difficult to control species or in the event of a heavy rainfall event where dilution of the treatment concentration has occurred. In these cases, a second application or more may be required; however, the sum of all applications must not exceed 150 ppb per annual growth cycle. Refer to the section of this label entitled, *Split or Multiple Applications to Whole Lakes or Reservoirs,* for guidelines and maximum rate allowed.

SINGLE APPLICATION			
Average Water Depth of Treatment Site (feet)	Gallons of Product per Treated Surface Acre to Achieve <sup>†</sup>		
	10 ppb	90 ppb	
1	0.05	0.48	
2	0.10	0.97	
3	0.16	1.45	
4	0.21	1.94	
5	0.27	2.43	
6	0.32	2.91	
7	0.37	3.40	
8	0.43	3.88	
9	0.48	4.37	
10	0.54	4.86	

<sup>†</sup>To calculate the number of quarts product required, use the calculation as follows: gallons per surface acre x 4 quarts/gallon = quarts per surface acre

For example: targeting a dose of 10 ppb in a 20 acre lake with average depth of 5 feet would require 0.27 gallons per surface acre or 1.0 quarts.

# Split or Multiple Applications to Whole Lakes or Reservoirs

To meet certain plant management objectives, split or multiple applications may be desired in making whole lake treatments. Split or multiple application programs are desirable when the objective is to use the minimum effective dose and, through the use of a water analysis, e.g. FasTEST, add additional product to maintain this lower dose for the sufficient time to ensure efficacy and enhance selectivity. Water may be treated at an initial application concentration of 4 to 50 ppb. Additional split applications should be conducted to maintain a sufficient concentration for a minimum of 45 days or longer. In controlling Eurasian watermilfoil and curlyleaf pondweed and where greater plant selectivity is desired, an application rate lower in the rate range may be chosen. For other plant species, it is recommended to contact a SePRO Aquatic Specialist for assistance in selecting the appropriate concentrations and timing of applications of this product, the utilization of FasTEST is strongly recommended to determine the actual concentration in the water over time. For split or multiple applications, the sum of all applications must not exceed 150 ppb per annual growth cycle.

**NOTE:** In treating lakes or reservoirs that contain functioning potable water intakes and the application requires treating within ¼ mile of a potable water intake, no single application can exceed 20 ppb. Additionally, the sum of all applications must not exceed 150 ppb per annual growth cycle.

# Partial Lake or Reservoir Treatments

Where dilution with untreated water is anticipated, such as in partial lake or reservoir treatments, split or multiple applications may be used to extend the contact time to the target plants. The application rate and use frequency of this product in a partial lake is highly dependent upon the treatment area. An application rate at the higher end of the specified rate range may be required and frequency of applications will vary depending upon the potential of untreated water diluting *Sonar Genesis*<sup>®</sup> *EPA Reg. No. 67690-54 Page 10 of 14* 

the product's concentration in the treatment area. Use a rate at the higher end of the rate range where greater dilution with untreated water is anticipated.

# Treatment Areas Greater Than 1/4 Mile from a Functioning Potable Water Intake

For single applications, this product may be applied at application rates from 30 to 150 ppb. Split or multiple applications may be made; however, the sum of all applications must not exceed 150 ppb per annual growth cycle. Split applications should be conducted to maintain a sufficient concentration in the target area for a period of 45 days or longer. The use of a FasTEST is recommended to maintain the desired concentration in the target area over time.

#### Treatment Areas within ¼ Mile of a Functioning Potable Water Intake

In treatment areas that are within ¼ mile of a potable water intake, no single application can exceed 20 ppb. When utilizing split or multiple applications for sites which contain a potable water intake, a FasTEST is required to determine the actual concentration in the water. Additionally, the sum of all applications must not exceed 150 ppb per annual growth cycle.

#### Application to Sediments of Dry or De-Watered Aquatic Sites

For application to sediments of dry or de-watered aquatic sites, including exposed sediments of lakes or reservoirs, irrigation canals, non-irrigation canals and drainage canals, apply a maximum of 4 gallons of product per surface acre per annual growth cycle. Apply product evenly to the sediment surface, with a minimum spray solution of 30 to 100 gallons per surface acre. High levels of organic matter in treated-sediments may reduce efficacy. This product may be applied with other aquatic herbicides labeled for this use. It is recommended that a SePRO Aquatic Specialist be consulted for further use recommendations.

# Direct foliar application to floating, topped-out and emerged aquatic vegetation

For application to floating, topped-out and emerged aquatic vegetation in ponds, lakes, reservoirs, drainage canals and irrigation canals, including dry or de-watered areas of these sites, apply a maximum of 4 gallons of product per surface acre per annual growth cycle. Apply product evenly to the treatment area using properly calibrated broadcast equipment in a minimum spray solution of 20 to 100 gallons per surface acre. For treatment of vegetation in or on water, do not exceed a water concentration of 150 ppb. Spot treatments can be made with up to 5% of this product by volume when application rate does not exceed 4 gallons of product per surface acre. It is recommended that a SePRO Aquatic Specialist be consulted for site specific recommendations.

# Application to Drainage Canals and Irrigation Canals

#### Static Canals

In static drainage and irrigation canals, apply this product at the rate of 30 to 150 ppb. The maximum application rate or sum of all application rates must not exceed 150 ppb per annual growth cycle.

#### Moving Water Canals

In slow moving bodies of water use an application technique that maintains a concentration of 10 to 40 ppb in the target area for a minimum of 45 days. This product can be applied by split or multiple broadcast applications or by metering in the product to provide a uniform concentration of the herbicide based upon the flow pattern. The use of a FasTEST is recommended to maintain the desired concentration in the target area over time.

# Static or Moving Water Canals Containing a Functioning Potable Water Intake

In treating a static or moving water canal which contains a functioning potable water intake, applications greater than 20 ppb must be made more than ¼ mile from a functioning potable water intake. Applications less than 20 ppb may be applied within ¼ mile from a functioning potable water intake; however, if applications are made within ¼ mile of a functioning potable water intake, a FasTEST analysis must be utilized to demonstrate that concentrations do not exceed 150 ppb at the functioning potable water intake.

# Application Rate Calculation — Moving Water Drainage and Irrigation Canals

The amount of product to be applied through a metering system to provide the desired ppb concentration of active ingredient in treated water may be calculated as follows:

- 1. Average flow rate (feet per second) **x** average canal width (ft.) **x** average canal depth (ft.) = CFS (cubic feet per second).
- 2. CFS x 1.98 = acre feet per day (water movement)
- 3. Acre feet per day **x** desired ppb **x** 0.0054 = Gallons of product required per day

# 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. \*

\* Not for use in California.

# Boom Height – Ground Boom

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. \*

\* Not for use in California.

#### **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.

# **Boom-less Ground Applications**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

# Handheld Technology Applications

Take precautions to minimize spray drift.

# STORAGE AND DISPOSAL

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

**Pesticide Storage:** Keep from freezing. Store in original container only. Do not store near feed or foodstuffs. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste.

**Pesticide Disposal:** Wastes resulting from use of this product may be used according to label directions or disposed of at an approved waste 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.

(Continued)

**Triple rinse containers to 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. 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 coantiainer upside down over application equipment or mix tank, or collect risnate for later use of disposal. Insert pressure rinising 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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