



Sonar[®] Genesis Aquatic Herbicide

FIFRA 24(c) - SPECIAL LOCAL NEED (SLN) LABEL

SePRO Corporation 11550 North Meridian Street, Suite 600, Carmel, IN 46032 USA

Sonar[®] Genesis Aquatic Herbicide

Classified for
"RESTRICTED USE"
in New York State
under 6NYCRR Part 326

ACCEPTED
FOR REGISTRATION

June 2, 2014

EPA Reg. No. 67690-54

24(c) Special Local Need Registration (SLN NY-120006)

New York State Department
of Environmental Conservation
Division of Materials Management
Pesticide Product Registration

FOR DISTRIBUTION AND USE ONLY IN THE STATE OF NEW YORK

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

ATTENTION

- 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.
- **In the state of New York, Sonar Genesis is registered under FIFRA Section 24(c) as a Special Local Need (SLN) registration. For the state of New York, this 24(c) supplemental labeling provides directions for use, including use precautions and limitations applicable to the use of Sonar Genesis and supersedes the Directions for Use on the product/package label.**
- **See product label for Precautionary Statements, Environmental Hazards, First Aid, Storage and Disposal, Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies.**
- This FIFRA Section 24(c) labeling must be in the possession of the user at the time of application.
- Notice to All Pesticide Applicators in the State of New York: Before application under any project program, notification of and approval by the NYS Department of Environmental Conservation is required, either by an aquatic permit issued pursuant to ECL Section 15.0313(4) or issuance of purchase permits for such use.
- This supplemental labeling must accompany every container of Sonar Genesis (EPA Reg. No. 67690-54) sold or distributed in New York State.
- Sonar Genesis (EPA Reg. No. 67690-54) is a Restricted Use Pesticide in New York State and may be sold, offered for sale, distributed, possessed or used only by a certified applicator or purchase permit holder.
- Swimming in treated waters is prohibited for a period of 24 hours following application of Sonar Genesis
- All restrictions and precautions on the EPA registered label are to be followed.

DIRECTIONS FOR USE

PRODUCT INFORMATION

Sonar Genesis is a selective systemic aquatic herbicide for management of freshwater aquatic vegetation in ponds, lakes, reservoirs, drainage canals and irrigation canals, including dry or de-watered areas of these sites. Sonar Genesis is absorbed from water by plant shoots and from hydrosol by the roots of aquatic vascular plants.



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Application rates and calculations of Sonar Genesis are provided to achieve a desired concentration of fluridone in parts per billion (ppb). **The maximum application rate for any single application must not exceed 50 ppb and the sum of all applications cannot exceed 90 ppb in ponds and 150 ppb in lakes, reservoirs and static canals per annual growth cycle.** For purposes of Sonar Genesis 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.

Use Restrictions and Precautions

- **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 Sonar Genesis through any type of irrigation system.
- **Hydroponic Farming:** Do not use Sonar Genesis treated water for hydroponic farming unless a FasTEST has been run and confirmed that concentrations are less than 1 ppb.
- **Greenhouse and Nursery Plants:** Do not use Sonar Genesis treated water for irrigating greenhouse or nursery plants. Use of FasTEST must confirm the fluridone concentration is <1 ppb.
- **Water Use Restrictions Following Applications With Sonar Genesis (Days)**

Application Rate	Drinking [†]	Fishing	Swimming	Livestock/Pet Consumption	Irrigation ^{††}
Maximum Rate (50 ppb) or less	0	0	1	0	See irrigation instructions below

[†] Note below, under *Potable Water Intakes*, the information for application of Sonar Genesis within ¼ mile (1,320 feet) of a functioning potable water intake.

^{††} 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, do not apply Sonar Genesis 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, Sonar Genesis may be applied 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.**
- **Irrigation:** Irrigation from a Sonar Genesis treated area may result in injury to the irrigated vegetation. Follow these precautions and inform those who irrigate from areas treated with Sonar Genesis of the irrigation time frames or FasTEST requirements presented in the



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table below. Follow the following time frames and assay directions to reduce the potential for injury to vegetation irrigated with water treated with Sonar Genesis. Greater potential for crop injury occurs where Sonar Genesis treated water is applied to crops grown on low organic and sandy soils.

Application Site	DAYS AFTER APPLICATION		
	Established Tree Crops	Established Row Crops/ Turf/Plants	Newly Seeded Crops/Seedbeds or Areas to be Planted Including Overseeded Golf Course Greens
Ponds and Static Canals [†]	7	30	Assay required
Canals	7	14	Assay required
Lakes and Reservoirs ^{††}	7	14	Assay required
Dry or De-watered Canals ^{†††}	0	0	^{†††}

[†] For purposes of Sonar Genesis 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.

^{††} 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 Sonar Genesis 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 Sonar Genesis 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 Sonar Genesis 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. It is recommended that a SePRO Aquatic Specialist be consulted prior to commencing irrigation of these sites.**

PLANT CONTROL INFORMATION

Sonar Genesis 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 Sonar Genesis. It is recommended to consult a SePRO Aquatic Specialist prior to application of Sonar Genesis to determine a plant's susceptibility to the planned treatment.



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Vascular Aquatic Plants Controlled by Sonar Genesis:

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)

Emerald 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 by Sonar Genesis:

Submersed Plants:

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

Emerald 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 (*Phalaris arundinaceae*)
southern watergrass (*Hydrochloa caroliniensis*)
torpedograss (*Panicum repens*)



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† Consult with a SePRO Aquatic Specialist about techniques to enhance efficacy of watermeal, including incorporation of Galleon S.C. Aquatic Herbicide into a Sonar Genesis 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 Sonar Genesis. 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.

Sonar Genesis may be applied or metered directly into the treated area or diluted with water prior to application. Add the specified amount of Sonar Genesis to water in the spray tank during the filling operation. Surface and subsurface application of the spray can be made with conventional spray equipment. Sonar Genesis 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. Sonar Genesis may also be directly metered into the pumping system where it is diluted with water.

Tank Mix Directions

Sonar Genesis 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. **Use in accordance with the most restrictive label limitations and precautions of the products used in the tank-mix.** 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 Sonar Genesis 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 Sonar Genesis to be applied to provide the desired ppb concentration of active ingredient in treated water may be calculated as follows:

Sonar Genesis gallons required per treated surface acre = 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 Sonar Genesis 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:

$$1 \text{ acre} \times 5 \text{ feet} \times 30 \text{ ppb} \times 0.0054 = 0.81 \text{ gallons per treated surface acre}$$

or

$$0.81 \text{ gallons} \times 4 \text{ quarts/gallon} = 3.2 \text{ quarts per treated surface acres}$$

or



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0.81 gallons x 128 ounces/gallon = 104 ounces per treated surface acre

Application to Ponds

Sonar Genesis may be applied to the entire surface area of a pond. For single applications, rates may be selected to provide 30 to 50 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 (feet)	Gallons of Sonar Genesis per Treated Surface Acre [†]	
	30 ppb	50 ppb
1	0.16	0.26
2	0.32	0.53
3	0.48	0.80
4	0.64	1.07
5	0.81	1.35
6	0.97	1.61
7	1.13	1.88
8	1.29	2.15
9	1.45	2.42
10	1.62	2.70

[†]To calculate the number of quarts of Sonar Genesis 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, Sonar Genesis 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.



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In lakes or reservoirs, the maximum application rate or any single application must not exceed 50 ppb and the sum of all applications cannot exceed 150 ppb per annual growth cycle.

A. Whole Lake or Reservoir Treatments (Limited or No Water Discharge)

Single Application to Whole Lakes or Reservoirs

Where single applications to whole lakes or reservoirs are desired, apply Sonar Genesis at an application rate of 10 to 50 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, choose an application rate lower in the rate range. 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 cannot 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 OF Sonar Genesis		
Average Water Depth of Treatment Site (feet)	Gallons of Sonar Genesis per Treated Surface Acre to Achieve [†]	
	10 ppb	50 ppb
1	0.05	0.26
2	0.10	0.53
3	0.16	0.80
4	0.21	1.07
5	0.27	1.35
6	0.32	1.61
7	0.37	1.88
8	0.43	2.15
9	0.48	2.42
10	0.54	2.70

[†]To calculate the number of quarts of Sonar Genesis 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.

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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 Sonar Genesis 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, choose an application rate lower in the rate range.** For other plant species, it is recommended to contact a SePRO Aquatic Specialist for assistance in selecting the appropriate concentrations and timing of application to meet specific plant management goals. When utilizing split or multiple applications of Sonar Genesis, 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 cannot exceed 150 ppb per annual growth cycle.

B. Partial Lake or Reservoir Treatments

Where dilution of Sonar Genesis 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 Sonar Genesis 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 the Sonar Genesis 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 ¼ Mile from a Functioning Potable Water Intake

For single applications, apply Sonar Genesis at application rates from 30 to 150 ppb. Split or multiple applications may be made; however, the sum of all applications cannot 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 of Sonar Genesis 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 cannot exceed 150 ppb per annual growth cycle.

Application to Sediments of Dry or De-Watered Aquatic Sites



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For application of Sonar Genesis 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 Sonar Genesis per surface acre per annual growth cycle. Apply Sonar Genesis 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. Sonar Genesis 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.

Application to Drainage Canals and Irrigation Canals

Static Canals:

In static drainage and irrigation canals, apply Sonar Genesis at the rate of 30 to 150 ppb per treated surface acre. The maximum application rate or sum of all application rates cannot 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. Sonar Genesis 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 of Sonar Genesis 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 of Sonar Genesis 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 Sonar Genesis 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.) x 0.9 = 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 Sonar Genesis required per day

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