Cooperative Extension Service

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Effectiveness of Fluridone (Sonar® RTU) for Controlling Southern Naiad (Bushy Pondweed) in Residential Pond Location – Rayne, Louisiana 2024

Problem:

Southern naiad is an annual aquatic plant known for its dense, branching growth of submerged vegetation. Its leaves are typically dark green to greenish-purple, narrow and ribbon-like, arranged in pairs or whorls of three, and usually less than 1/2 inch long and 1/8 inch wide. Single seeds are enclosed in the leaf sheaths, and the plant reproduces through both seeds and fragmentation. The small flowers located at the base of the leaves are only visible under magnification.

Southern Louisiana's warm climate creates an ideal environment for the growth of aquatic weeds like southern naiad, as elevated pond temperatures throughout much of the year promote vigorous plant development. While these aquatic plants can enhance the overall ecology of farm ponds by supporting aquatic life, they can also become problematic if left unchecked, interfering with recreational activities and complicating pond management.

Objective:

To assess the effectiveness of controlling southern naiad (bushy pondweed) using a fluridone-based aquatic herbicide that is both cost effective and easily accessible to homeowners, while also providing a simple method of application.

Materials & Methods:

On August 8, 2024, an initial application of Sonar® RTU was made to a 1/4-acre pond with an average depth of 5 feet. The weather was sunny, and winds were calm. Sonar® RTU, which is packaged in a 32-ounce squeeze bottle, was applied by walking around the perimeter of the pond and directly squirting the product into the water. The Day 1 application rate was 32 ounces. Daytime temperatures were in the mid-90s°F.

Day 1 application

A second application of Sonar® RTU was conducted on August 28, 2024, using 16 ounces. The method of application remained the same, with the product evenly distributed around the pond. This application was originally scheduled for 21 days after the initial treatment, but due to rain forecasted on Day 21, it was applied a day early on Day 20. Conditions on August 28 were sunny with a slight breeze, and daytime temperatures were again in the mid-90s°F.

Day 20 application

The final application took place on September 18, 2024, 42 days after the first treatment. Following the same procedure, 16 ounces of Sonar® RTU was applied around the pond's edge. Weather conditions were partly cloudy with light winds, and daytime temperatures were in the low 90s°F.

Day 42 application

Sonar® RTU Application Rates/Timing Table (from Sonar® RTU Label)

Pond Size (Square Feet)	**Acres**	**Total Sonar Needed** (Bottles Needed)	**Day 1** (Application Amount)	**Day 21** (Application Amount)	**Day 42** (Application Amount)
5,445	1/8	32 oz. (1qt.)	16 oz.	8 oz.	8 oz.
10,890	1/4	64 oz. (2 qt.)	32 oz. (1 qt.)	16 oz.	16 oz.
14,540	1/3	96 oz. (3 qt.)	48 oz.	24 oz.	24 oz.
21,780	1/2	128 oz. (4 qt.)	64 oz. (2 qt.)	32 oz. (1 qt.)	32 oz. (1qt.)
32,670	3/4	192 oz. (6 qt.)	96 oz. (3 qt.)	48 oz.	48 oz. (1 qt).
43,560	1	256 oz. (8 qt.)	128 oz. (4 qt.)	64 oz. (2 qt.)	64 oz. (2 qt.)

Sonar RTU- Ready-To-Use Aquatic Herbicide – diy.SePRO.com

All application methods and rates were followed according to the label.

Results:

The application of Sonar RTU was confirmed to be effective against southern naiad.

Initial Assessment (Day 1 - August 8, 2024):

At the start of the study, the pond was estimated to be 80% covered with southern naiad.

First Follow-up Assessment (Day 20 - August 28, 2024):

A subsequent assessment revealed that less than 5% of southern naiad was controlled. However, close examination of the remaining weed indicated that the tips were turning white, and the overall plant color had shifted from green to a reddish hue, suggesting initial stress.

Second Follow-up Assessment (Day 42 - September 18, 2024):

By day 42, approximately 50% of the southern naiad was controlled. Observations showed increased plant stress, with more southern naiad tips exhibiting white coloration, while the overall plant color remained reddish. Coontail gradually showed up along the edges which is assumed to be due to the lack of competition it is now receiving from southern naiad.

Third Follow-up Assessment (Day 61 - October 7, 2024):

At this point, control of southern naiad increased to 80%. The plants continued to show signs of stress, characterized by white tips and persistent reddish coloration. Some coontail along the edges have now started to show signs of stress by turning white.

Final Assessment (Day 83 – October 29, 2024):

By day 83, the pond was found to have achieved 85% to 90% control of southern naiad. Plants still exhibited signs of stress, with white tips and a reddish, brownish hue, indicating that while the treatment was effective, some level of plant stress persisted and is expected to continue to work. Much of the coontail has exhibited white tips and continues to show signs of stress.

Conclusion:

The Acadia Parish LSU AgCenter recreational pond demonstration has effectively showcased Sonar® RTU as a valuable tool for controlling southern naiad. Although initially slow-acting due to its systemic nature, Sonar® RTU ultimately demonstrated its efficacy, achieving over 90% control of this aquatic weed, much to the satisfaction of the homeowner.

Various chemical options are available for controlling southern naiad, each featuring different active ingredients. The homeowner opted for Sonar® RTU because of its ease of application and favorable cost compared to other alternatives the homeowner researched. The cost of Sonar® RTU totaled $240 for the homeowner. In fact, the homeowner saved approximately $450 using Sonar® RTU when factoring in the costs of both the alternative chemical and the necessary application equipment.

This demonstration highlights the successful use of targeted herbicides such as Sonar® RTU in managing aquatic weeds, offering a practical solution for homeowners dealing with similar issues. It serves as a testament to the potential benefits of informed herbicide selection, enabling effective control of problematic aquatic weeds while meeting the needs of those maintaining recreational ponds.

The LSU AgCenter does not endorse any products. The homeowner selected this aquatic herbicide and the LSU AgCenter extension agent monitored its effectiveness on the targeted weed.

Acknowledgement:

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