

Irrigating and Fluridone (Sonar) in Clear Lake

The fluridone (Sonar) treatments for hydrilla in Clear Lake should not cause any problems under nearly all circumstances. If there were problems, they would probably first show up from using lake water to water plants, but even here problems are very unlikely. Over the last several years, the Hydrilla Eradication Program has measured fluridone levels hundreds of times in and around treatment areas in Clear Lake. These measurements show that the levels of fluridone are usually very low, so low that they will not hurt even the most sensitive plants, even within the treatment areas themselves.

The most sensitive plants are in the nightshade family, which has many familiar garden plants (see list below). These plants will be harmed by water that contains five (5) or more parts per billion (ppb) of fluridone. The only other highly sensitive plants are young grasses, such as in a newly planted lawn. Other plants will not be harmed unless the level reaches ten (10) ppb or more. Fluridone is a slow-acting herbicide so it would take two or three weeks of watering to cause damage.

Water samples are taken before and after each treatment. The Program completed an extensive analysis of 462 water samples for fluridone from 2004 through 2010. The samples came from inside and next to treatment areas. Of 462 samples, two had fluridone concentrations over 5 ppb. One of them had 5.7 and the other had 10.4 ppb. Most samples were much lower: 322 samples had less than 0.5 ppb, 83 had 0.5 to 1 ppb, and another 38 had 1 to 2 ppb. Over 99.5% of the time, the Sonar in the water could not harm even the most sensitive plants. Furthermore, since 2007, one of the two permanent sampling sites was in one of the largest, most sheltered and enclosed treatment areas, in Soda Bay. Such conditions lead to higher concentrations of fluridone, and the sampling site was intentionally placed in what should be a "worst case" situation. Similar results were found from 2010–2020 and there were no samples had concentrations over 5 ppb.

Although we are not aware of any damage around Clear Lake from using the lake water for irrigation, there is one situation where fluridone might build up to where it could hurt plants. That situation would happen in highly protected or sheltered areas that were receiving direct applications of Sonar. Such areas might include enclosed marinas with only a narrow access to the lake, narrow sloughs, or, possibly, very sheltered coves. These areas would only be at risk if they receive applications directly in the area. Fluridone will be very low in any location that is open to the usual wave action in the lake. If you are in a treatment area and believe it is a highly sheltered situation, we recommend using city or well water for irrigation.

Common Garden Plants in the Nightshade Family

Vegetables: tomatoes, potatoes, hot and sweet peppers, eggplant, and tomatillos

Ornamentals: petunias, flowering tobacco (*Nicotiana*), potato vines, *Datura*, *Browallia*, *Brugmansia*, *Cestrum*, *Nicandra*, *Nierembergia*, *Salpiglossis*, *Schizanthus*, and *Solandra*.