

## **Invasive Weed Held In Check: Saltwater Helps Control Giant Salvinia**

CAMERON - "We sprayed it, we dried it, we burned it and we salt watered it," Ben Welch said as he stood next to his airboat in the Cameron Creole marsh near here.

The "it" Welsh referred to is *Salvinia molesta* or giant salvinia - an invasive weed that forms dense mats, which sometimes are several feet thick. The weed was first identified in Cameron Parish in 2001. The fast-growing aquatic plant can choke a waterway and kill plants and animals underneath its thick covering. It was first discovered in Louisiana at Toledo Bend in 1998 by a biologist with the Sabine River Authority. The weed can also clog irrigation systems and even compete with rice crops if it's introduced into rice fields. Native to South America, the plant has been a major problem for Brazil's rice industry and poses a threat to Louisiana farmers.

Welsh, owner of Welch's Airboat Service, has a contract with the Cameron Parish Police Jury and the Cameron Parish Drainage Board to control giant salvinia in 4,000 acres of the marsh known as the Henry-Davis property. The infested region is blocked off from other areas by high levees, roads and ridges.

When it was first identified in Cameron Parish, giant salvinia was 4-5 feet thick against bridges, and observers identified an area 5-6 miles long and as wide as 2 miles on the Cameron Drainage Canal.

Since then, Dearl Sanders, LSU AgCenter researcher, and Kevin Savoie, Louisiana Sea Grant Extension Fisheries Agent, have been working with the local agencies and Welch to control the weed.

In the hope of finding a less-expensive alternative to chemical control, the trio tried saltwater this past spring. The Henry-Davis property was pumped nearly dry and flushed with saltwater from the Intracoastal Waterway. "Saltwater did more good than anything else," Savoie said. The giant salvinia hasn't reappeared in areas of the marsh where saltwater was introduced, officials said.

On the other hand, in areas where levees held back the saltwater, giant salvinia presents a never-ending battle being fought with chemicals and other management tools.

Sanders, who said the Cameron Parish infestation is the only one he knows that's close to saltwater, is recommending the area be pumped dry and flushed with saltwater yearly for about three years. "Where saltwater can get, we just annihilated it," Welch said.

In other spots, Welch still fights the weed with frequent herbicide applications. One area was completely covered in May, but after spraying, it was mostly clear in mid-July, he said. All that remain are "little pockets." "It's like hide and seek," Welch said. "It's not there one day, but it's there later."

Since May 1999, many have been looking for the best method to control giant salvinia. They found that a herbicide called Reward, which is available for use in the state, is the best means of controlling the weed. One drawback, however, is expense. Reward costs about \$80 per acre for the chemical, and the application cost adds even more to the expense. In Cameron Parish, the Louisiana Department of Wildlife and Fisheries has supplied the Reward, and the local agencies have paid for the application.

One aspect of marsh management is controlled burning, Savoie said. Landowners periodically will burn off the dead, dry grasses on dry ground that emerges during periods of low water. It was during a burn that Welch discovered fire is not a friend of giant salvinia. When his crew burned some dry cover, the heat "baked" the salvinia, Welch said. That salvinia didn't come back.

"We have the benefit of a contractor who knows marsh management," Savoie said about Welch.

The Henry-Davis property is used for duck hunting and to graze cattle, Savoie said. But when open water is covered with giant salvinia, the ducks can't land. And even if they did, they'd have nothing to eat. Since the salvinia control program started, wigeongrass and other grasses that provide food for waterfowl and wildlife are coming back. "We are putting the area back into productivity," Savoie said.

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