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AGRICULTURE

UF study may clear sugar harvest haze

Florida sugar cane growers experiment with harvest methods that don't involve burning their fields.

By Susan Salisbury

The Palm Beach Post

BELLE GLADE - When sugar cane is harvested each year in Palm Beach, Hendry, Martin and Glades counties, smoke, ash and fires are a familiar part of the process.

Just before the cane is cut, more than 375,000 acres are burned, field by field, to rid the crop of debris.

But worldwide, harvesting sugar cane without burning -- known as green cane production -- is gaining favor as development nears cane-growing areas and complaints about the smoke begin to rise.

A team of University of Florida researchers at the Everglades Research and Education Center in Belle Glade is examining the effect of green harvesting on the crop and fields here.

During harvest season, which begins in October, researchers will be working with growers to conduct field trials comparing burned and nonburned fields, said Rob Gilbert, an agronomist who is leading the team.

"We are not proselytizing green cane production," Gilbert said. "We are trying to take a scientific approach to inform policy."

Burning rids the fields of weeds, leaves and other unwanted material and makes it easier and faster for harvesting machines to cut the cane, Gilbert said. It also means hauling less tonnage to the mill, resulting in reduced fuel use.

DEBRIS REMAINS

With green harvesting, after the cane is cut and taken to the mill, the remaining debris is left on the fields, either as a mulch-like cover or raked into rows.

Ben Legendre, a sugar cane specialist at Louisiana State University, said cane burning is being phased out in Argentina, Australia, South Africa and Brazil. In Louisiana, 65 percent of the crop is harvested green.

In Florida, a regulated burn program that was made stricter in the early 1990s has kept complaints to a minimum. The Palm Beach County Health Department received just two complaints related to sugar cane burning in 2005 and has received three in 2006, said Randall Miller, environmental supervisor at the department's division of environmental health and engineering. A total of 35 complaints were received from 2001 through early 2006.

BEFORE BURN PERMITS

Before the current zone-based burn-permit program was instituted, the health department received an average of 18 sugar cane burning complaints a year, Miller said.

During the 2005-06 season, the Florida Department of Agriculture's Division of Forestry issued 8,285 sugar cane burn permits, said Ralph Crawford, assistant chief of fire protection. The growing areas are divided into four sections, with those near populated areas subject to tougher rules.

"The closer you are to eastern Palm Beach County, the more restrictive the burning is," he said.

Growers must apply for a separate permit for each field on the morning they want to burn. An automated computer system takes the application and, using weather data, determines whether to grant the burn permit.

Florida sugar producers say they would rather continue to burn fields because yields are higher and costs are lower, but they have used green-harvesting methods occasionally.

U.S. SUGAR EXPERIMENTS

Judy Sanchez, spokeswoman for U.S. Sugar Corp. in Clewiston, said the company is experimenting with green cane harvesting in Hendry County.

"The burn program we have in place right now has been working very well," Sanchez said. "We have a good relationship with the communities out here." Barbara Miedema, spokeswoman for the Sugar Cane Growers Cooperative of Florida in Belle Glade, said the company has been green harvesting a portion of its fields for years. If a burn permit cannot be obtained the day a field is scheduled to be harvested, the green method will sometimes be used instead to keep to the harvesting schedule.

"We would prefer to continue to be able to burn sugar cane," Miedema said. "It is not a real big nuisance anymore."

Researchers, who plan to have preliminary results by early 2008, are looking toward the future, when burning could become more of an issue here as development increases near agricultural areas.