Fiber plant may be new crop

Grower says kenaf could be industry if Louisiana invests

By DICK WRIGHT
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JEANERETTE — Harold Willett’s small kenaf mill near here is up and running, and its milled kenaf core and fibrous bast are being sold.

Making kenaf a salable crop in Louisiana has been a long time coming.

Willett is optimistic the crop will find its place in state agriculture, but turning it into a real industry will take more capital, he said.

Kenaf — pronounced ke-NAFF — is a tall weedy plant with a stringy outside called bast and a spongy white core. Both are usable.

A hemp-like plant, kenaf can be a source of fibers for making burlap bags. The fiber is also useful in making paper.

American Newspaper Publishers Association interest in kenaf as a source of pulp for newsprint — the paper newspapers are printed on — was a major reason kenaf attracted American agricultural attention some years ago.

But while Natural Fibers of Louisiana, the company that mills kenaf here, sells some fiber for specialty papers, large-scale paper mills using kenaf have yet to be built.

Harold Willett and his grandson, Christopher Willett, the salesman in the enterprise, are finding that their best market for the lightweight, absorbent core is as horse bedding.

At the same time, they are patenting another use of the core as an absorbent to clean up oil spills.

“Make an industrial absorbent from kenaf,” Chris Willett said. “It has a high affinity to absorb, and it repels water for a certain period of time.”

He showed how kenaf core absorbs oil from water but does not absorb the water until it has been in water for several hours. Kenaf core continues to float for some time after it soaks up several times its weight in oil.

Both Harold and Chris Willett said kenaf has the potential for several other uses, and it is biodegradable, an environmental point in its favor.

Packing material could be one use, they said. Harold Willett said there is some interest in using the refined core as “filler.”
in foods like ice cream. The Willetts are considering making burlap from the fiber. They also have a box, modeled after the green recycling containers that go to the curb for pickup, made from molded kenaf. When the box wears out, Harold Willett said, it can be ground up and used for mulch.

Willet said kenaf had not been grown in the United States earlier because there was no harvester. "It was only done where there was hand labor, and there was no use of the core," Willett said. He said he was told the core was useless.

"I proved that was not true. In fact, the core is worth more than the fiber," he said.

Ray Ricaud, LSU professor of agronomy, grew varieties of kenaf in a field trial last year and plans to plant more this year. Kenaf is planted thickly on the row and grows to 12 and 14 feet high, or even 20 feet high in the right climate. "We don't know much of anything about it," Ricaud said.

Ricaud is observing its growing conditions, looking for pests and tracking yields. His first crop produced from 9.4 tons to 14.9 tons an acre in dry fiber, when the plants were cut about 15 feet tall. He said he had no problem with disease.

Natural Fibers of Louisiana is owned by Willett, a number of cane farmers and others.

At this point, the Willetts said kenaf fits well into sugarcane farming, but it will not replace sugarcane farming. Harold Willett said he believes it is a perfect crop for north Louisiana farmers. Kenaf is cheaper to grow than soybeans, he said.

Kenaf is a member of the hibiscus family, a cousin of okra and cotton. In the green growing stage, the shape of leaves of some varieties suggests it is marijuana. But the Willetts said kenaf is not a pleasure drug. They have heard reports, however, that smoking it causes temporary paralysis of vocal cords.

Harold Willett spent most of his career on sugarcane plantations, in sugar mills and, especially, designing and making sugarcane harvesting equipment. In "retirement," he is a consultant for better ways to harvest crops. He built the kenaf mill here.

The U.S. Department of Agriculture has funded much of the investigation of kenaf as a potential U.S. crop. Kenaf is a native of east Africa but a large part of the commercial growing is in India and Bangladesh where, Willett said, the harvest is done by hand.

He said the USDA asked him about how to harvest it in this country.

"Basically, we used the Louisiana cane harvesting system, and it works well," Willett said. "We have all the equipment we need here."

After consulting further on kenaf with the USDA, experimenting with it in Texas' Rio Grande valley, Willett decided to try it in south Louisiana. Last year, 16 area farmers grew 560 acres. They had planned to plant 800 acres but had to cut the acreage. Some 19 farmers are expected to plant kenaf this year. Willett wanted to build a larger mill, but had to scale back to fit a tight budget.

"We're the only producing mechanical separation plant in the world," he said.

But Louisiana will lose out on kenaf's potential if more funding for plant expansion and other uses is not forthcoming, Willett said.

The state of Texas is putting money into experiments there, and a plan to develop kenaf for paper pulp in Mississippi is funded by the Tennessee Valley Authority, he said. Willett said he sought financial help from the Louisiana Department of Agriculture and Forestry, but was told there is no money.

"We have the will, but we don't have the way," Willett said.

USDA genetics researcher Charles Cook said kenaf can fit into American growing practices as an alternative crop and source of non-wood fiber. It will save trees and it is a short-term investment, he said. So far, no insecticides are needed for kenaf, he said.

Andy Scott, who does USDA-related research in south Texas, said introducing a new crop is a challenge, and not many candidates succeed.

"The odds of coming up with a species that is going to be another wheat or corn or grain sorghum or rice are pretty astronomical," Scott said. "Kenaf is one that has about as good a chance as anything."