

## "STRAWLOGGS" FUTURE BURNS BRIGHT

# They're Turning Straw, Corn Cobs Into Money

Four years ago, three Colorado entrepreneurs began cubing wheat straw into fuel logs called Strawloggs. Today, it has become a thriving industry with plants operating in five sites throughout the U.S. About 20 more systems are expected to be operating by this fall.

In 1983, Walt Strasser, a Julesburg, Col., farmer, read in FARM SHOW about a straw cubing machine made in England. Soon after, along with farmer partners Jim Sorensen and John Peterson, he flew to England to see the machine.

A closeup look at 2 of 16 English straw cube plants convinced the trio that the idea would work in the U.S. They bought a machine and formed The Qube Corporation to sell both "Strawloggs" and straw cubing machines.

The farmer-partners installed a cubing machine themselves in a quonset building on the Strasser farm. They now have exclusive U.S. distribution rights to import, sell, install and service the residue cubing machines which they buy from New Air Technical Services, Leicester, England.

Six machines are now operating at five sites: Two in Julesburg, Colo.; and one each in Burlington, Col.; Belmond, Iowa; Rockville, Ind.; and Langdon, N. Dak.

Strawloggs are 2 in. in dia., 6 to 8 in. long, and can be made from almost any crop residue, says Jim Sorensen, chief executive officer of Qube Corp. "Here in Colorado we're using wheat straw almost exclusively. Most of the other plants are using oat straw, sawdust or soybean residue, and the Indiana plant is using corn cobs along with other residues."

Strawloggs are being sold in 40 lb. bags or 20 lb. boxes. A box of 12 Strawloggs weighing 20 lbs. sells for \$4, while a bag containing 40 lbs. of log pieces of various sizes costs \$5.

"This winter we're selling more bags which is a good sign," says Sorensen. "The 40 lb. bags are for the real serious wood burners. We'd like to sell more of them because it means people are using Strawloggs in place of wood. The box is primarily a store item - an easy-to-handle product which the housewife can put in a grocery cart.

"Public acceptance of Strawloggs has been phenomenal," says Sorensen. "Thanks to extensive newspaper and TV coverage throughout the U.S., we're receiving, on average, 5 to 10 inquiries per day on either the machine and its process, or the Strawloggs product. Because the equipment is the only type of its kind in the U.S., advertising has not been necessary," says Sorensen.

The biggest problem is the economy and the currency exchange rate, notes Sorensen. "Everything we buy comes from England and, with the declining dollar, it's costing more to buy the equipment. A complete turnkey system for a 1,000 lb./hr. machine now costs \$187,000 compared to \$167,000 two years ago."

Qube Corp. is experimenting with a cubed barbecue fuel made from straw and other residues to replace charcoal. "We have high hopes for this product and its profit potential," says Joe Gooch, who owns and operates a Strawlogg plant near Rockville, Ind. "It burns much cleaner than charcoal, and it burns hotter and longer."



Big round bales of straw (in shredder) are converted into Strawloggs (2 in. dia. and 6 to 8 in. long) at the rate of up to 1,000 lbs. of processed "logs" per hour.

Qube Corp. sells turnkey Strawlogg plants under a licensed manufacturing agreement which enables the purchaser to own all of the equipment and operate the plant as well. The agreement was set up to unify the manufacturing and marketing of Strawloggs, says Sorensen. "We feel that the secret to the success of the Strawlogg industry is for all of the plants to work together to form a unified marketing and distribution complex. We furnish all the packaging, labels, and machines at cost for which we receive a 4% royalty. All research and development is done at the Julesburg plant. All plants have access to all of the new products we develop."

One of the newest plants was purchased last fall by Dwight Tyrell, who farms with son Tom near Belmond, Iowa. They're using a 1,000 lb./hr. machine to make Strawloggs out of oat straw mixed with sawdust. "We've marketed four tons of Strawloggs in the Cedar Rapids, Iowa area but we think the real market will be in Chicago," says Dwight.

Tyrell Farms, Inc., the family's 1,200-acre operation, has nearly \$250,000 invested in the equipment, including a new machine shed to house it. The machine itself cost \$187,000 installed.

The Tyrells baled 60 acres of oat stubble into round bales and got the sawdust from North Iowa Wood Products in nearby Belmond. They tried to harvest soybean residue and corn cobs last fall but both products were too wet to bale.

"Oat straw is our main residue source because when it's harvested in July or August the weather is usually dry. When you're harvesting corn and soybeans, the weather doesn't stay dry for very long. For example, last fall we saved a bunch of bean straw but it was too wet to collect when we combined so we had to dump it in a windrow and leave it for a week. Then we chopped it and stored it in a Harvestore silo."

Corn cobs from a neighbor's field were also too wet to bale, says Dwight. "We left them in the field. When they dry out, we'll bale them and grind them with a hammer mill.

"When corn is combined, the cobs are usually too wet to bale, says Dwight. "Therefore, we need to use picked ear corn

which can be dried down in the crib. And there aren't many farmers who still pick corn."

Tyrell thinks that even foxtail weeds can be converted into Strawloggs. He expects his investment to pay for itself within five years. "We have high hopes for Strawloggs because they're so environmentally clean. Compared to many woods, they burn with less pollution and reduced levels of nitrogen, sulfur and creosote. A lot of city councils are now considering ordinances against burning firewood in fireplaces because of the air pollution."

Near Rockville, Ind., farmers Joe Gooch and Jeff Maddux have formed Agri-Mass, Inc., and installed a Strawloggs plant. They've already used wheat straw and grass hay to form Strawloggs, and have experimented with corn cobs. Their marketing target is central Indiana and Indianapolis, and parts of Illinois.

"We're purchasing the raw material from more than 45 farmers in the surrounding area," says Gooch, "and creating a market in Indiana for a previously discarded commodity."

Gooch and Maddux pick up the round bales of residue using a specially built trailer that can haul 16 to 20 bales at a time. If the farmer does the baling, they pay him \$10 a bale.

Gooch says he's optimistic about the use of corn cobs to make Strawloggs. "We have several seed corn plants nearby, so corn cobs represent a market that will be there every year. In contrast, cornstalks are often too wet to bale."

Agri-Mass, Inc., employs up to eight people on a full-time basis, and many high school students during the summer months on a part-time basis. The company is investigating local trucking and delivery contract opportunities, and also the possible employment of Strawloggs distributors throughout the marketing area.

In Iowa, Earl Wittrock installed a corn cob "brick maker" three years ago on his farm near Carroll. The machine, built by ComDec in Dijon, France, is pto-powered and 3-pt. mounted, and can be easily moved from place to place.

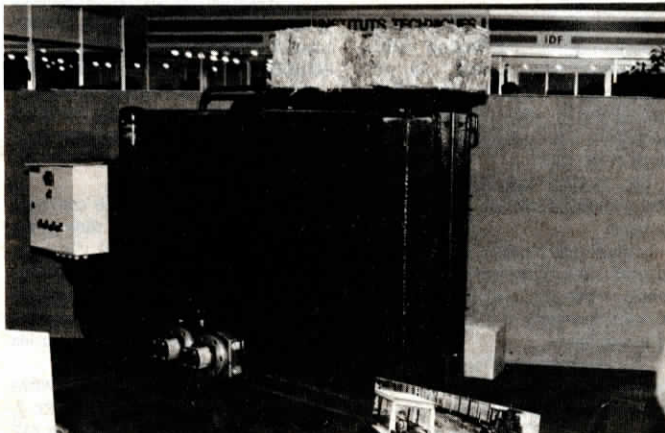
Wittrock can make about 150 15-lb. bricks an hour from corn cobs at about 14% moisture. High pressure - about 4,000 psi - is used to compress the cobs into 8 x 8 x 16 in. long bricks without adding water or any other additive. Cobs simply feed into the machine's 1-ton hopper and a pair of packers, powered by 5 in. dia. hydraulic cylinders, compresses them into bricks.

Wittrock says he has used straw, corn cobs and sawdust to make "bricks." "We haven't produced enough to go commercial or fill large orders. Mostly, we're selling bricks locally to private homes.

"It's been a lot of trial and error but I've been pleased with the interest in both the machine and the product. If a person just gets after it, the market is there."

The French-made machine has its own hydraulic pump. Wittrock has made some modifications of his own to simplify the machine. "We're also in the process of getting a company to build a less expensive machine that would use the tractor's hydraulic system. It would also build better blocks."

For more information on Strawloggs, contact: FARM SHOW Followup, Jim Sorensen, Qube Corporation, Star Route, Box 34A, Julesburg, Col. 80737 (ph 303 854-2333); or Dwight Tyrell, Belmond, Iowa (ph 515 444-4143); or Agri-Mass, Inc., RR 3, Box 229, Rockville, Ind. 47872 (ph 317 569-3151). For information on Wittrock's straw "brickmaker", contact: Earl Wittrock, Rt. 3, Box 7, Carroll, Iowa 51401 (ph 712 792-2663).



Corn feed into the machine's hopper. Hydraulic rams compress cobs into 15-lb. "bricks" (on top of hopper) with no water or other additive.