

If you're looking for new ways to add to your bottom line, take a look at the money-making ideas featured here and on the next page.

If you've found or heard about a new income-boosting idea, we'd like to hear about it. Send details to: FARM SHOW Magazine, P.O. Box 1029, Lakeville, Minn. 55044 (ph 800 834-9665) or email us at: editor@farmshow.com.



Rob and May Miller are making and marketing pellets of weeds, grass and hay that's used for fuel, mulch, soil additives and other products.

On-Farm Pellet Business Turns Weeds Into Cash

By Jim Ruen, Contributing Editor

You can turn weedy hayfields into cash with pellet-making equipment. Rob and May Miller, son Mike and his wife Marylou are doing just that in upstate N.Y. The former dairy farmers are direct marketing pellets of weeds, grass and hay for fuel, mulch and soil additives, as well as for cat litter and pet bedding. When not pelleting waste forage, they also pelletize barley straw to clean up farm ponds, wood for fuel and kiln-dried pine for horse bedding.

"We started out making our Enviro Energy pellets from poor quality hay and weeds for use in pellet stoves," says Mike Miller. "We've expanded markets for the pellets as we find new products to market."

Raw material comes from area fields that are no longer actively farmed, or hay spoiled by rain. Old hay and crop fields grow up with weeds and grass. Left too long, they fill in with brush and trees.

"If the land isn't harvested at least once a year, it quickly turns worthless agriculturally," says Miller. "It grows up to goldenrod and other weeds that work well for our pellets."

Btu-wise, the pellets are similar to wood pellets, with 17 lbs. of pellets equal to about a gallon of fuel oil. However, some older pellet stoves can't handle the higher ash content. Newer stoves are better designed to handle the ash. As a result it has taken longer than expected to build a market for the grass fuel pellets.

Meanwhile, the Millers developed a secondary market for the grass pellets as mulch and soil additives. A single layer of pellets on the ground expands 5 to 6 times as they absorb water, producing several inches of weed-stopping mulch. The pelleting process destroys any seeds, so the mulch itself is weed seed-free.

The following season, the mulch can be dug into the soil where it loosens up hard clay and retains water in sandy soils. The pellets also add nutrients.

"We market the pellets as a mulch and soil amendment, not as a fertilizer, though we've had some tested and found them surprisingly high in nitrogen," explains

Miller. "We aren't licensed to sell the garden pellets as fertilizer. However, we do advise our customers to have a soil test taken before and after several years of using the pellets."

The pellets, which sell for \$4.50 per 40-lb. bag, can also be added directly to soil in gardens, in the field or even in pots for houseplants. "They practically explode in the ground as they absorb moisture," says Miller.

The Millers have developed a special low heat pelleting process to make soft grass pellets for the cat litter and pet bedding market. They also make pellet barley straw. Using barley straw to control algae growth in ponds is a well-established practice. Barley straw pellets are easier to handle and more effective than straw. Using their equipment, the Millers were able to make and sell the barley straw pellets for \$40 for a 40-lb. bag. Miller says that is significantly less than the \$2 to \$5 per pound commercial brands ask for theirs.

"It added another market for us and gave some area barley growers another market also," he says.

One thing that sets the Miller's Enviro Energy pellets apart from the competition is lack of binding ingredients. Most pelleting companies use plastic or other products to bind the pellets. The Millers prefer to sell all natural products.

"Anything you put in the pellets adds to the cost," says Miller. "We had to do a lot of experimenting with pressure, speed and flow, but we learned to make a good grass pellet with no additives."

The Millers use an electric-powered, 2 ton per hour Sprout Waldren pelletizer. Different materials require different pelleting dies, which the Millers have custom made. Changing products requires little more than switching a die.

Combined with augers, a tub grinder and hammermill, baggers and other equipment, the Millers have invested about \$600,000 in their pelleting system. "We haven't paid for it all, but we are ahead of the bank on payoff," says Miller.

In addition to selling fuel, garden and horse bedding pellets, the Millers work with Cornell University and other research institutions and alternative energy groups. Miller also

Her School Bus Is A Food Store On Wheels

Farm Show has published hundreds of stories over the years on school buses converted into a variety of uses. After the story in our last issue about a bus used to bring fruits and vegetables to farmers markets, we heard about a bus in Oklahoma that's literally a rolling grocery store.

The *Traveling Desperado* bus is owned by Gary and Paulette Rink, also known as Food Wranglers who have run "Rowdy Stickhorse Farm" for 20 years, raising Certified Naturally Grown (CNG) poultry, sheep, beef, goats and pigs. They sell meat, eggs, goat's milk, goat cheese and a variety of goat milk herbal soaps and creams, as well as herbs and essential oils that they produce themselves.

"We used to sell our products from the back of a truck at farmers markets, then we grew into a van and then a short bus," Paulette says. "As our product line grew we decided to convert a full size bus into a rolling store."

The Rinks purchased a 1985 bus for \$1,000 and removed all the seats, added a tongue and groove wood floor, tinted the windows, installed hand-sewn curtains, built rustic display cases and added a deck on the back. They spent \$2,300 on four chest freezers, converted two of them to refrigerators and wired each one individually with a circuit breaker. Shelves, trays and special display units are mounted on both sides of the bus.

Customers enter at the front, pick up their items and exit the back. "The best feature of this bus is the temperature control," Paulette says. "We can keep our food products cool or frozen. The air conditioning keeps us cool in summer and the heat keeps us warm in the winter."

Rink appreciates these creature comforts because she spends a lot of time in the bus. She's on the road Tuesday through Friday, putting on almost 300 miles a week. "One day I head to Enid, the next day I'm in Stillwater, and the next day I'm in Oklahoma City, 60 miles away," Rink says. She has regular customers in those cities and in many small towns along the way.

"The bus carries everything that we produce plus fresh-baked breads, local honey,



Gary and Paulette Rink converted this full-size bus into a rolling grocery store.



Customers enter at the front of bus, pick up their items, and exit the back.

fresh ground peanut butter, hand-made casseroles, fresh picked vegetables, home-canned items and spices from other vendors. You can't buy what we sell at any store," Rink says.

In Oklahoma City, Rink parks her bus near two hospitals where health care workers appreciate her curbside service. "I'm really a farmer's market on the road," Rink says, "and I'm there every week."

Rink stresses that her rolling food store has strong quality control and a personal service touch. "We care a lot about our customers and we take a lot of pride in what we produce, what we sell and how we sell it. The bus is an extension of that quality."

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They also pelletize barley straw to clean up farm ponds.

consults with individuals interested in doing their own pellets.

"Currently I am consulting with the University of Maine and a guy from Vermont who wants to pelletize switchgrass and Reed canarygrass," says Miller. "I'm available to

work with others who want to set up a business like ours."

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