

August 2008

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Fuel spikes
custom rates
Page 6

Protect grain
prices Page 21



What's to see
at APD, EFD
Pages 28-31

Eco-farm wins

By JOHN VOGEL

ONCE known as the “original environmentalists,” farmers such as Tim Fessenden are reclaiming their hands-on leadership in the environmental community. In the case of Fessenden Dairy, balancing dairy and crop needs with quality priorities for air, soil and water makes this King Ferry, N.Y., operation a model of ecology.

That's why Tim, wife Ronda and their family will receive New York's 2008 Agricultural Environmental Management Award.

The Fessendens and Cayuga County's Soil and Water Conservation District will be honored at Empire Farm Days on Aug. 6. The Fessendens “are people who care about the people around them and the environment,” says Sandy Huey, watershed program manager for the county's conservation district.

“They're always open to new technologies,” Huey says.

Six generations of this family built one of the Northeast's cleanest dairy farms with more than 650 cows in production, 500 acres of silage corn and 700 acres of alfalfa. But much of the innovation on the farm was developed under the current generation's leadership.

The freestall and parlor system roll out an average of 31,700 pounds of milk per cow with only a 130,000 somatic cell count on recycled manure bedding. Manure solids are separated at a 66% solids recovery rate, reducing total manure volume by 33%.

“Recycled solids are made into better bedding by naturally heating them to 150 degrees,” explains Tim. “That preserves beneficial pathogens and dries the solids to about 45% moisture in the process.”

“About a third of the manure solids are sent down the road as compost,” he adds. Ronda markets them as certified organic Tender Loving Compost.



GROUND-ZERO ECOLOGISTS: Tim and Ronda Fessenden and daughter Kate (left) share an overview of the award-winning farm.

Key Points

- Fessenden Dairy earns top environmental management award.
- The farm serves as a model for protecting environment and community.
- Lagoon cover dramatically reduces greenhouse-gas emissions.

New odor reduction answer

Being next door to King Ferry, the Fessendens have worked for years to reduce dairy manure odors. “We think we've found the answer,” reports Tim. Manure liquids are piped underground via gravity flow to a two-stage satellite lagoon a mile from the barns — where

a new environmental management concept is taking shape.

In early July, work to cap the lagoons with a heavy, floating polymer cover was finished — at no cost to the Fessendens. Methane and carbon dioxide gases generated in the anaerobic lagoon are captured and flared off, earning carbon credits. Ithaca-based Environmental Credit Corp., the lead on this USDA Conservation Innovation Grant project, earns 85% of the carbon credits for 10 years. Similar projects are under way at four other New York dairies.

“Our primary benefit,” says Tim, “is odor control and reduced liquid manure volume. We'll be measuring how much methane is produced for possible future

innovations. The covers prevent rainfall from entering the lagoon.”

The farm has worked extensively with the conservation district and the Agricultural Environmental Management Program for years, utilizing a comprehensive nutrient management plan. French drains and diversion swales divert clean water away from traffic areas.

Nearly 50% of cropland is strip-cropped on contours and terraces. Close to 53 acres are dedicated to buffer strips and grass waterways to protect critical areas along Paines Creek.

See Page 7 for more AEM award details.

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