



## **Northern New York Agricultural Development Program**

### **PRESS RELEASE**

May 5, 2004

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#### **Results of NNY Baleage Quality Research Now Available**

Results are now available from the Northern New York Agricultural Development Program research project that evaluated how additives affect the quality of baleage under Northern New York conditions. Baleage refers to hay harvested into large round bales with moisture content typically between 40% and 60%. More than 300,000 acres of hay are harvested each year across Jefferson, Lewis, St. Lawrence, Franklin, Clinton and Essex Counties.

“This study reinforced the benefits of proper harvesting and offers farmers insight on using additives to improve the quality of their baleage,” says Frans Vokey, who initiated the study. Vokey is a dairy educator with Cornell Cooperative Extension of Lewis County. “Additives are generally designed to enhance the natural fermentation process or to reduce nutrient loss when preserved forage is re-introduced to oxygen.

“Baleage is often faulted for having inconsistent fermentation patterns and highly variable feed value, even with properly harvested bales,” Vokey says. “Data on the effectiveness of additives in baleage is very scarce and I am not aware of any earlier research conducted under Northern New York conditions.”

Three different additives: two microbial inoculants and one chemical preservative were tested on second-cut alfalfa-grass hay baled in July 2002 at the John and Ron Williams dairy farm in Deer River. Samples taken from 60 bales were tested at six weeks, nine months and 11 months post-harvest for nutrient composition, fermentation end-product, and ethanol. The University of Delaware forage lab tested samples for yeast- and mold-spore counts.

“The results of this baleage trial indicate that proper harvesting is significant factor in achieving quality baleage. The untreated bales fermented well and were of high nutritional value through eleven months after harvest,” Vokey says. “In treated bales, the additives did influence the fermentation process with varying levels of pH and lactate and yeast and mold growth.”

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The Northern New York Agriculture Development Program selects and prioritizes research the results of which can be practically applied to farms in the six-county region of northern NY: Jefferson, Lewis, St. Lawrence, Franklin, Clinton and Essex Counties. For more information, contact Program Co-Chairs Jon Greenwood, 315-386-3231 or Joe Giroux, 518-563-7523, your local Cornell Cooperative Extension, or R. David Smith at Cornell University, 607-255-7286.

**Interest in Baleage Increasing Across NNY**

Vokey says interest in using baleage is increasing across the Northern New York region, and not just with dairy producers.

“Baleage would have advantages over corn silage for my operation,” says beef producer Don Holman, Holmdale Farms, Adams, NY. “Hay is less expensive to grow than corn. I can harvest hay in the summer when I don’t have a barn full of beef cows and I’m not driving a school bus. Baleage has a higher dry matter, higher protein content which would allow me to handle half the tons of feed. And, most importantly, baleage maintains the quality of my feeding program.”

**Chateaugay Farmer Uses Proper Harvesting to Cash Crop Baleage**

Doug Malette in Chateaugay has cash cropped hay and baleage since 1987. He sells about 20,000 small bales to horse owners and about 3,000 of the large round bales to dairy farmers each year. Over the past 14 years, he has experimented with all types of additives.

“We are trying to get the best quality hay we can make,” Malette says. “We find using a certain amount of preservative on our horse bales is the only way to do that in this corner of the country. We seldom see five to six days of hay drying weather here, so using the buffered, higher proprionic acid reduces the dust in the hay.”

He says the proof of what works shows when you “put treated hay and untreated hay free choice in front of a cow or horse and they eat the treated hay first and then the other.”

Mr. Malette says the bigger round bales work well for alfalfa and he has found proper harvesting has meant he has not had to use additives on the bigger bales.

“Proper harvesting is the key to it all. We watch the temperature and the moisture and we wrap our baleage within two to four hours of harvesting. We want to get the oxygen away from the hay as quickly as possible,” he says.

**Gouverneur Farmer Would Like to Try Research on Feed Bunks**

“We need more of this type of research work to determine if a particular treatment is cost-effective and justifies the costs of added equipment and additives,” says Peter Barney, agronomy and field crop specialist with Cornell Cooperative Extension of St. Lawrence County. “This study shows that good management can save money, and suggests additives may only be needed when the weather is less favorable. Each farmer must decide what his particular circumstances require.”

In past years, dairy farmer Dan Desormeaux of Gouverneur has rented equipment to make baleage. However, he has a conventional-style barn, so he could only feed baleage outdoors as a summer supplement while the cows were on drier pasture. Desormeaux now prefers chopping hay for storage in a concrete bunk. He says he would like to see research on using preservatives in feed bunks.

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Although he says, “Proper harvesting into a bunk has run as good as putting hay into a silo here,” Desormeaux says he would still be interested to see if bunk additives would reduce spoilage and keep the quality of the hay.

“If there is mold in the feed, the aggressive eaters can drop their milk production and it will take three or four weeks to get it back and some cows never do recover completely. I’ve seen the results of using a preservative on corn. If a feed - corn or hay - has a fresher look, smell and taste, the cows will eat better and they get more benefit out of it,” Desormeaux says.

For complete project results or for hay harvesting recommendations, contact Frans Vokey, Cornell Cooperative Extension of Lewis County, 315-376-5270. For more information on baleage and other forage topics, call Cornell Cooperative Extension in your county or visit the Cornell Small Farm website at [www.smallfarms.cornell.edu](http://www.smallfarms.cornell.edu). The farmer-driven Northern New York Agricultural Development Program conducts research projects which benefit regional farms; contact Jon Greenwood (315-386-3231) or Joe Giroux (518-563-7523) for more information.

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**300,000+ Acres of Hay Harvested in NNY (# acres/county, NYS Ag Statistics**

Service, 2001):

Clinton County:	30,300 acres
Essex County:	12,300 acres
Franklin County:	37,900 acres
Jefferson County:	91,300 acres
Lewis County:	45,900 acres
St. Lawrence County:	105,000 acres

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