

# ANNUAL REPORT

for the Fiscal Year **2008**



Agricultural  
Experiment Station



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**FRONT COVER**

Apple blossoms herald Vermont spring and one of the state's signature crops. UVM's "Organica" apple research harvested its first crop of organic apples in 2008. Also this year, from left, UVM Proctor Maple Research Center's Mark Isselhardt oversaw production of 1,002 gallons of syrup. Shelburne 4-H members showed cattle at the Champlain Valley Fair. Growing Vermont, a student-run, entrepreneurial experiment on campus put in its first year. Photos by Cheryl Dorschner and Stephen Mease.

**THIS PAGE**

A farm in Richmond wears barn red, white and blue. In 2008 the number of Vermont farms dropped by only 19 – fewer than any year in decades – bringing the total to 1,078.

**BACK COVER**

(clockwise, from top left) Judy Branch, Michael Vayda, Richard LeVitre, Deborah Neher, Jennifer Colby, Robert Parsons, Linda Berlin, Timothy Wilmot, Donald Ross, Aleksandra Drizo, David Barrington, Yolanda Chen, Dale Steen, Stephen Pintauro, Sid Bosworth, Frederick Schmidt

# Comfort for Cows, Savings for Farmers

## *Researchers Test Methods Toward Mastitis Prevention*

When, in 2005 a silky brown Jersey cow was the cover girl on *Nature Biotechnology*, she became the “poster bovine” for success in mastitis-resistance through genetic modification. University of Vermont Molecular Biologist David Kerr produced the gene that enabled that Jersey to ward off the common form of mastitis, *Staphylococcus aureus*.

But many species of bacteria cause mastitis; Kerr continues to find additional ways to prevent this widespread bacterial infection that is both painful to cattle and results in an estimated \$2 billion dollars annually in lost income to farmers due to veterinary costs, lower milk production, discarded milk and treatment costs. Despite advances in the control of mastitis caused by some species, other important bacterial species and strains continue to emerge.

Even with Kerr’s breakthrough in 2005 – a scientific advancement does not necessarily translate into a practice adopted commercially – he and other UVM research scientists continue to look for additional, and perhaps simpler, more affordable treatments of use to farmers.

Kerr’s current work looks for ways to improve cows’ ability to resist mastitis through traditional breeding. By studying cows challenged with mastitis, and

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# AGRICULTURE

## Farming: First and Foremost a Business

### *UVM Extension Builds Business Plans, Brainstorms Options*

Cheese lovers from Weston to Boston and beyond nod appreciatively when they hear the words “Woodcock Farm.” Weston Wheel, True Blue and, of course, Timberdoodle farmstead cheeses come to mind.

Farm owners Mark and Gari Fischer graze East Friesian sheep on 45 acres of organic pasture in Weston. By the time the Fischers first approached the UVM Extension Farm Viability Program for help in 2005, they had already produced nationally award-winning cheeses, distributed them throughout the Northeast and attracted the attention of *The New York Times*.

What the Fischers didn't have was a business plan and long-term goals. Allen Matthews, coordinator of the Farm Viability Program which is funded by a grant from the Vermont Housing

# Trees: On The Move

*What Makes Hardwoods Climb*

EN



# NUTRITION, HEALTH & FOOD SAFETY

## Keeping to Your Roots: A Growing Interest in Vermont Products

### *Researching the “Vermont” Brand*

Hearing the phrase, “Vermont made” conjures up images of Holstein cows, maple syrup, farmstead cheese, wood products, and, of course, Ben and Jerry’s ice cream. But how effective are marketing strategies directed toward “Vermont made” labeling and how do they affect consumers’ purchasing choices?

Dr. Jane Kolodinsky, Chair of the Department of Community Development and Applied Economics, specializes in applied economics – the application of the concepts of demand, consumer behavior and marketing principles to improve consumer wellbeing. Most recently, her research focus has been directed at assessing the “buy local” approach to branding Vermont products.

When asked, “How does your research result speak to a ‘buy local’ approach to branding Vermont products?” Kolodinsky replied, “We have research dating back about six years that show the term ‘Vermont’ makes a difference. Consumers associate ‘Vermont’ with quality and good craftsmanship. And, they want to support the local economy when they can. Consumers understand that the working landscape can only be preserved if local agricultural products are produced here.”

The findings also indicate that ‘Vermont fresh’ agricultural products may be marketed at a premium price. “But this is a double-edged sword,” according to Kolodinsky. “Yes, there are products made in Vermont that can and should be bought at a premium. There are specific segments of consumers willing and able to pay for these. Yet 95 percent of Vermonters have



# NUTRITION, HEALTH & FOOD SAFETY

Building Healthy  
Communities One  
Coalition at a Time







# Safety First: Savings Second

## *Best Practices Cut Insurance Costs*

In the barn, in the equipment shed, in the feed bills, in the employee roster – nowadays, dairy farmers must look every single place for ways to save money.

George Cook has identified an unexpected place to save on farm costs – farm safety.

As University of Vermont Extension's Farm Safety Specialist, Cook has worked with Vermont dairy farmers for 30 years to make farms safer places, because accidents are heart wrenching and life changing.

And, the fact is, accidents are also expensive. Medical bills, workers' compensation, lost time, reduced wages and insurance costs all make farm accidents costly for years to come.

The Vermont Farm Safety Pilot Program began in October 2007 as a partnership among UVM Extension, Vermont Dairy Task Force, Vermont Agency of Agriculture and Vermont Department of Labor to educate farmers on training their employees about safety issues in order to reduce farm injuries and accidents. With Cook coordinating the program groups have conducted educational programs at four sites statewide, performed farm safety audits, assisted farmers in developing custom farm safety plans and conducted follow-up sessions after the first year.

Twelve farms signed on during the first year. Participating dairy farmers must commit to a farm-safety audit on their farm, agree to follow through on recommendations, identify someone as farm safety manager to implement the program on their farms, develop and implement an individualized plan and conduct monthly on-farm safety training meetings with their employees.

Aaron and Chantale Nadeau did all that on their farm in Derby: Top Notch

Holsteins, named a Vermont Dairy of Distinction by the Vermont Dairy Promotion Council. The Nadeaus are always on the lookout for ways to improve.

"With the help of UVM Extension, we conducted a safety audit and made our farm a safer place for our employees," says Chantale. "For example we hung safety posters, showed employees DVD training sessions, and we include seasonal safety tip sheets in our workers' paychecks."

In May 2008, the Nadeaus and another participant in the

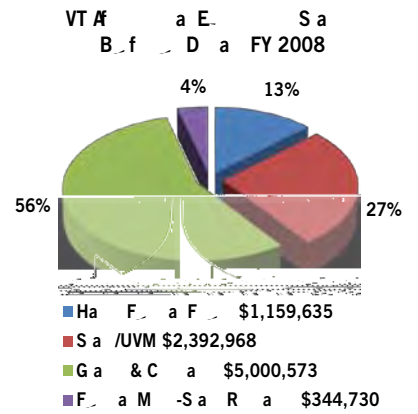
Vermont Farm Safety Pilot Program, Eric and Jane Clifford of Starksboro, reported to their insurance carriers on the changes they had implemented as a result of the program. The farmers asked whether they could realize insurance rate reductions in response to those changes.

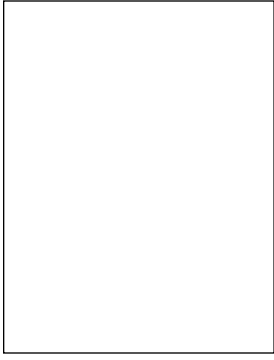
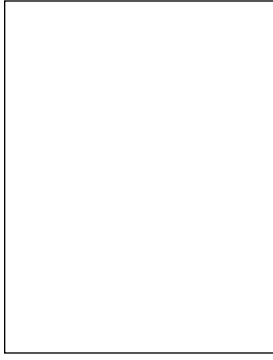
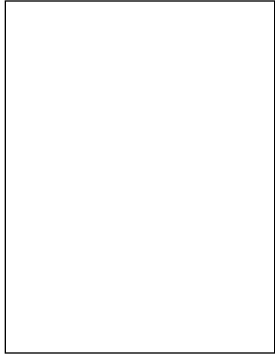
It worked. Farmers dedicated to safety may be eligible for significant workers' compensation insurance savings. One farm reported a 15 percent discount; the other saved 25 percent per year on insurance premiums. The savings ranged from about \$8,000 to \$48,000.

"Both farmers say that an active safety program was the key factor that brought down their rates," according to George Cook.



# DEANS' MESSAGE







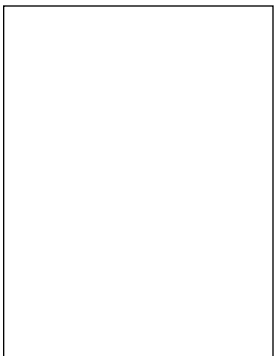
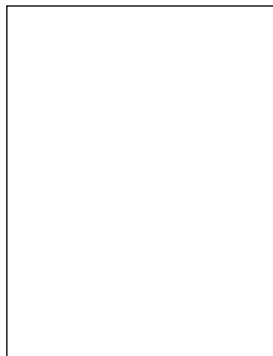
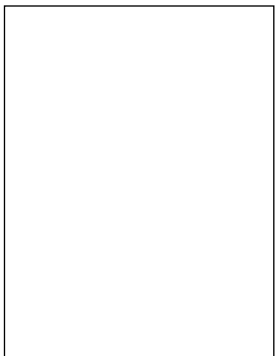
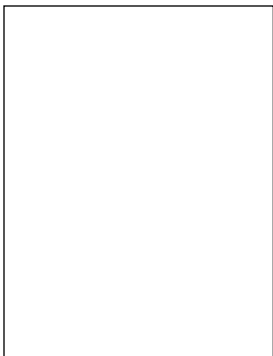
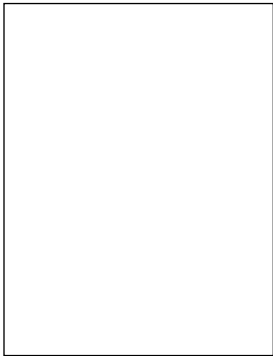
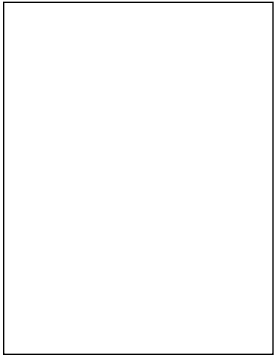
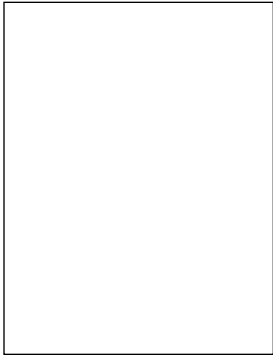
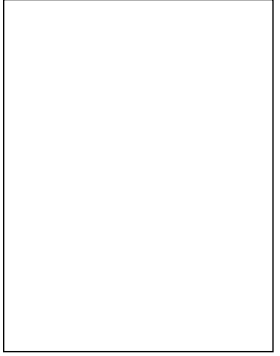
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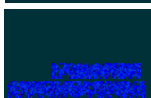
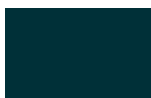
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