Virginia Cooperative Extension
A partnership of Virginia Tech and Virginia State University

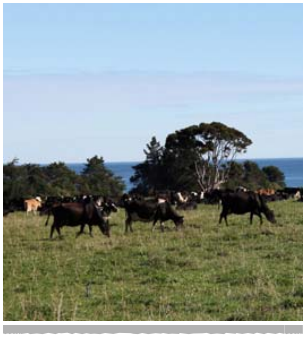
VirginiaTech
College of Agriculture and Life Sciences

School of Agriculture
Virginia State University

DAIRY PIPELINE

Department of Dairy Science
Blacksburg, VA 24061
540/231-4762 Fax: 540/231-5014
www.vtdairy.dasc.vt.edu

Volume 31, No. 4 May 2010



"...I was impressed with the awareness of the dairy industry across New Zealand. Even in the big city of Auckland, ...people responded by relating their personal life to the farm..."

Photos courtesy of Dr. Christina Petersson-Wolfe

A LOOK AT THE KIWI DAIRY INDUSTRY

New Zealand is one of those places that I have always wanted to visit, but never thought I would have the opportunity. That lofty goal of someday visiting the land of the Kiwis, was achieved in March of this year when I attended The International Dairy Federation (IDF) – Mastitis conference which was held in Christchurch, New Zealand. Isis Mullarky (a colleague from Virginia Tech) and I spent more than 48 hours in transit to enjoy a total of 8 days in New Zealand. Our first 4 days were spent in Christchurch, on the South Island, attending and presenting research at the IDF – Mastitis conference. This international meeting, held every 5 years, had 550 delegates. Third to New Zealand and Australia, the United States was represented by 30 delegates. Following the conference, the remaining days were spent visiting with Kiwi researchers, learning about the dairy industry in New Zealand, and touring the countryside.

As you may know, the dairy industry in New Zealand is based on a pastoral farming system with seasonal calving. Similar to the human population of 5 million, there are 4.25 million cows in New Zealand with an average herd size of 366 cows. Although two thirds of the cows reside on the North Island, the cows on the South Island record the highest milk yield and milk solids. Holstein-Freisian cows make up 22.4% of the entire population, 20.5% are crossbred animals and 8.4% are Jerseys. The remaining 48.6% of the cows include a small number of Ayrshires as well as all other breeds, including many beef crossed animals.

The entire population of Kiwi cows average approximately 8300 lbs of milk per lactation. This is obviously a lower production statistic than what we are accustomed to in our dairy system. However, the Kiwi cows are much smaller in size (Holsteins average just over 1000 lbs. in body weight) and are fed a more forage-based diet. With payment based primarily on milk solids, there is an emphasis on milk fat and protein percent, which average 4.9% and 3.7%, respectively. Related to milk quality, the average milk somatic cell count in New Zealand was 253,000 last year.

Artificial insemination is the predominantly used breeding method, with 75% of cows inseminated last year. Interestingly, services per conception average 1.34, which helps to ensure the 370 day calving interval. In terms of land use, the average number of cows per hectare is 2.83, which is a commonly used statistic in this type of a dairy system (one hectare is equivalent to 2.47 acres). At a premium, the cost per hectare is just over $35,000 NZD, which is approximately equal to $25,000 USD.

Anecdotally, I was impressed with the awareness of the dairy industry across New Zealand. Even in the big city of Auckland, if we were asked the reason for our visit, people responded by relating their personal life to the farm they were raised on, the neighbor that dairies or just the general knowledge that the dairy industry is one of the primary agriculture industries of the country. Biosecurity is of utmost importance to the country of New Zealand, and that was profoundly obvious during our visit. Along the way, we learned several new terms such as vats (bulk tanks), sheds (parlors) and races (paths which the cows walk to get to the sheds). This "green" country was absolutely magnificent and we thoroughly enjoyed our journey. If we are lucky enough, maybe we will get the opportunity to visit again in the future.

—Christina Petersson-Wolfe
Extension Dairy Scientist,
Milk Quality & Milking Management
(540) 231-4767; cspw@vt.edu

Upcoming Activities

State 4-H Dairy Quiz Bowl—Saturday, May 1, Goochland County.

State FFA Dairy Foods Career Development Event—Monday, June 21, Food Science Building Virginia Tech.

State FFA Dairy Cattle Career Development Event—June 22-23, Virginia Tech.

State FFA Dairy Handlers Activity—June 22-23, Virginia Tech.

Southeast Dairy Youth Retreat, July 6-10, South Carolina.

Virginia PDCA Show—Saturday, August 7, Rockingham County Fairgrounds, Harrisonburg.

**For information regarding any of the above Youth events, contact Dave Winston, dwinston@vt.edu or 540-231-5693.*

If you are a person with a disability and require any auxiliary aids, services or other accommodations for any Extension event, please discuss your accommodation needs with the Extension staff at your local Extension office at least 1 week prior to the event.

For more information on Dairy Extension or to learn about current programs, visit us at VT Dairy—Home of the Dairy Extension Program on the web at: www.vtdairy.dasc.vt.edu.

Bennet G. Cassell,
Dairy Extension Coordinator &
Extension Dairy Scientist,
Genetics & Management

Making Business Decisions Using the Partial Budget

Often I receive questions about the economics of different business decisions. Should I add mattresses to my stalls, build a new barn, hire another employee, purchase new equipment, milk more cows, and the list goes on. One of the more effective tools to evaluate individual changes in the business is a partial budget. Partial budgets allow you to analyze one specific decision and estimate the effect it has on your cash flow. Everything else in the operation is assumed to remain the same, except for the one idea you want to analyze. For instance, if you are interested in evaluating adding stall mattresses, the partial budget will show only changes in income and expenses due to the mattresses. You will not include increases in income resulting from other decisions, such as milking more cows. Also, most partial budgets look at cash flow over a 5 or 10 year period after the change. This gives you a longer term perspective on the feasibility of the idea being evaluated. Shown below is a brief example for a dairyman considering purchasing automatic detachers for the parlor.

Partial budgeting does not have to be a complicated process. In fact, everyone inadvertently does it! Each time you think of the extra costs associated with a change versus the effects on income, you are using a partial budget. However, potentially important changes, if not written down, can be easily missed. Making a list usually helps trigger thoughts on extra costs you may forget or revenue streams overlooked. Written partial budgets also make decisions more objective. It gives you a bottom-line number to project feasibility of a specific action. I encourage you to utilize this tool before making major capital purchases or before large changes to your business model. Contact your local dairy extension agent if you have questions on how to use this evaluation tool.

> "Partial budgets allow you to analyze one specific decision and estimate the effect it has on your cash flow."

Partial budget example - buy detachers:

Increased revenue	Year 1	Year 2
More milk – 12lbs/d *365d	$4,380	$4,380
Bank loan - $6,000	$6000	
Decreased expenses		
Reduce labor - $5/d*365d	$1,825	$1,825
Total benefit = (increased revenue + decreased expenses)	**$12,205**	**$6,205**
Decreased revenue		
Increased expenses		
Purchase detachers	$10,900	
9% loan payments	$1,543	$1,543
Total detriment = (decreased revenue + decreased expenses)	**$12,443**	**$1,543**
Yearly cash flow change (Total benefit – total detriment)	**-$238**	**$4,662**

—Beverly Cox
Extension Agent,
Franklin County
(540) 483-5161;
becox@vt.edu