

DAIRY PIPELINE

Department of Dairy Science
Blacksburg, VA 24061
540/231-6870 Fax: 540/231-5014
www.vtdairy.dasc.vt.edu

Volume 37, No. 4 May 2016



A Fresh Look at the Margin Protection Program (MPP) for Dairy

—Kevin Spurlin, Extension Agent, Grayson County; spurlink@vt.edu

The last Farm Bill dramatically changed the way the federal government supports the dairy industry. Gone are the old price support program and MILC payments. The dairy industry demanded a better support program than one based solely on milk prices, and the result was the Margin Protection Program for Dairy (MPP Dairy). MPP Dairy is not just a tool for dairy producers, it is “the tool” subsidized by the federal government to support the dairy industry. Non-subsidized risk management tools exist, but those will not be discussed here. So, how can dairymen make the most of the MPP Dairy program?

Dairymen need to understand that MPP Dairy is insurance, not a mere subsidy. Dairy producers are better off if the program does not pay out, as was true for price supports or MILC payments. Each of these programs kicks in when dairy markets are suffering.

One complaint of the old programs was how they used one milk price trigger across the U.S., and that trigger did not reflect the variability in financial conditions across dairy regions. More importantly, they didn't account for cost of production, which also differed across the country. MPP Dairy was an improvement by using a type of income over feed cost (IOFC) trigger based on readily available feed ingredients and milk market data. While the MPP Dairy margin trigger is the same nationwide, dairymen may choose the appropriate “insurance” coverage for their individual farms by deciding on the margin threshold and the percent of milk production covered. The program gives producers more control, but that means producers now have to study the program. It is no longer automatic.

The MPP Dairy program has been available for one year. Most of the comments I have heard were not positive. The result was most dairymen selected the \$4 catastrophic level for 2016. This is like reducing auto or health insurance because you didn't hit a deer or get hospitalized last year. Very few people buy insurance for a financial return. They buy insurance for peace of mind when there is potential for

something bad to happen. That's risk management.

Dairymen saw conditions that led to <\$8 margin levels from January through August, or 4 of the 6 program periods of 2015. Each month had a margin level calculated, and the range was a high of \$8.33569 in January, to a low of \$7.44659 in July. Correlate those margins to what your individual farm experienced. As you do, remember MPP Dairy uses an IOFC margin for all animals on your farm. When you do the calculations for your own farm, remember to add the feed costs of dry cows and heifers. How was July financially for you in 2015? What about January? Each month's margins can be found online at <http://www.fsa.usda.gov/programs-and-services/Dairy-MPP/index>. Contact your Extension Agent or accountant if you need assistance calculating your own margins.

Consider that by choosing the \$4 margin protection level in 2016, a dairyman is indicating that he or she can withstand another \$3.44/cwt erosion in margin from the worst of 2015 before he or she wants insurance to pay. Data showed that 33% of Virginia producers had \$6.50 coverage in 2015. In essence, they were willing to pay the premium of \$0.09/cwt (<\$4 million lbs. annual production) to guarantee no more than a \$0.94 loss of their margin from 2015 lows. Another way to think about it is that by paying the \$0.09/cwt premium, those producers guaranteed a net minimum margin level on their covered milk of \$6.41/cwt, or the coverage threshold minus the premium payment (\$6.50/cwt margin - \$0.09 premium). Remember, insurance is not a breakeven calculation. The question is, “what is peace of mind worth?” \$100? A \$0.01 or \$0.475/cwt premium? Keep in mind that there is greater flexibility by covering only a percentage of the milk produced. If you think one half of the year will be good, cover 50% of your milk. There are many ways to take advantage of this program, but it requires a different way of thinking. More importantly, it is not automatic. Don't be afraid to seek advice. This tool can benefit your farm, but only if used wisely and not solely on emotion.

“Dairymen need to understand that MPP Dairy is insurance, not a mere subsidy.”



Upcoming Events

See [VTDairy](#) for details.

May 14, 2016

Progressive Ag Safety Community Day – Franklin Co. Parks and Rec., Rocky Mt.

May 23, 2016

Hokie Cow Classic, Blacksburg Country Club

June 10-11, 2016

Franklin County Open Youth Livestock Show

June 10-11, 2016

Maryland [Show like a Pro Workshop](#)

June 17, 2016

State Youth Dairy Judging Workout, Shenandoah Co.

July 15, 2016

VA Dairy Expo Berryville, VA

August 1, 2016

State 4H/FFA Dairy Youth Field Day Clarke & Frederick Counties

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.

“...there may be more than just IgG levels in colostrum that are important to consider.”

For more information on Dairy Extension or to learn about current programs, visit us at [VTDairy](#)—Home of the Dairy Extension Program at: www.vtdairy.dasc.vt.edu.

R. E. James

R.E. James, Dairy Extension Coordinator & Extension Dairy Scientist, Dairy Nutrition

Should We Be Looking at More than IgG Concentration in Colostrum?



—Taylor Yohe, Ph.D. Student with Dr. Kristy Daniels; danielsk@vt.edu

It is known that providing high quality colostrum is important for ensuring a calf receives a solid foundation for building the immune system. How we usually check colostrum quality, as well as failure of passive transfer of immunity in calves, is by measuring IgG or protein of the serum or plasma concentration (either directly or indirectly). And while IgG (antibodies) are an important component of the immune system, they are only one part of the immune system, which means there may be other aspects of colostrum that are important for calf immunity that are being ignored. For example, researchers have identified immune cells in colostrum and have looked into their ability to help the calf fight disease as well.

Recently, a study performed at Virginia Tech looked at immune cells in colostrum and their effects on immune cell profiles in calf blood and potential benefits on calf health. The study treatments consisted of feeding calves either whole colostrum (WC) or cell-free colostrum (CFC), which represented colostrum that was unaltered (i.e. containing immune cells), or colostrum that did not contain viable immune cells, respectively (**Figure 1**). The CFC treatment was prepared by rapidly freezing the colostrum in a plastic bag with liquid nitrogen to lyse the cells and then warming it back up (~98.6°F) before feeding. It was hypothesized that WC calves would have enhanced levels of immune cells in the blood compared to CFC

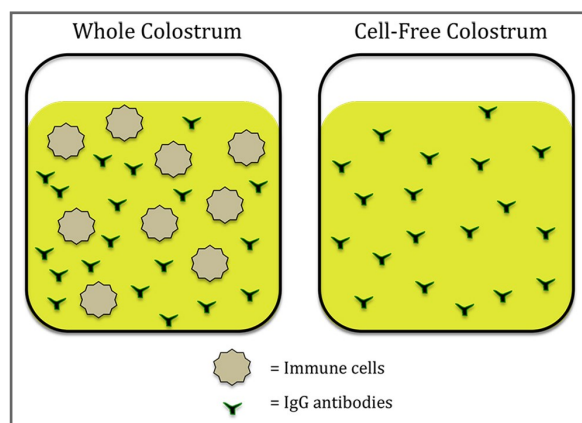


Figure 1. Whole colostrum (WC) and cell-free colostrum (CFC) used during the Virginia Tech study showing the presence of immune cells and IgG antibodies in WC fed to calves compared to only IgG antibodies in CFC fed to calves.

Langel, S. N., W. A. Wark, S. N. Garst, R. E. James, M. L. McGilliard, C. S. Petersson-Wolfe, and I. Kanevsky-Mullarky. 2015. Effect of feeding whole compared with cell-free colostrum on calf immune status: The neonatal period. *J. Dairy Sci.* 98:3729-3740.

calves. All calves were separated from their dams at birth to prevent suckling and were subsequently fed 2 quarts of colostrum within 3 hours of birth and then fed another 2 quarts between 5 to 8 hours after birth. Blood samples were taken before the first colostrum feeding and then at various time points after feeding colostrum. Antibody concentrations were determined and specific immune cells were isolated from the blood samples and quantified. The immune cells measured are able to show the difference in how the WC or CFC treatments would alter the calf’s immune system to be able to respond to disease. Also, fecal and respiratory scores were taken daily for each calf using the [Calf Health Scoring Chart](#) from the University of Madison-Wisconsin School of Veterinary Medicine to detect any symptoms of potential illness.

In summary, it was found that there was no difference in IgG concentrations (or any immunoglobulins) between treatments, increases in particular immune cells of interest (specific T lymphocytes) as well as decreases in other immune cells of interest (a specific T lymphocyte and monocytes) between treatments, and no differences in fecal scores, but an increase in CFC calves indicating respiratory illness compared to WC calves. Immunology can be a confusing field to understand, but altogether it was concluded that immune cells transferred to the calf via colostrum may aid in enhancing an immune response to a disease as seen by the differences in immune cells and the case of respiratory illness in CFC compared to WC calves.

Findings from this research support the idea that there may be more than just IgG levels in colostrum that are important to consider. Practically, feeding whole colostrum from her dam may pose some problems, but it may end up being beneficial for calf health as well. The verdict is still out on how important colostrum immune cells can be for developing a calf’s immune system, but signs are positive. It should be noted there is nothing wrong with using IgG to assess colostrum or serum in calves, but that there may be more to the story that we need to keep investigating to make sure our calves are getting the best colostrum to support their budding immune systems.