MPP Decision Guide 14-08



Best and Worst MPP-Dairy Participation Strategies for a 100-Cow Farm

Chuck Nicholson and Mark Stephenson

Smeal College of Business, Penn State University and University of Wisconsin, Madison

What would net revenues from the program have been for the best and worst participation strategies if MPP-Dairy had existed during 2007-2013?

The MPP-Dairy program can be used to provide a farm with insurance against catastrophically-low margins, as risk management to ensure that the farm receives a minimum margin level or as a countercyclical payments program similar to MILC. The decision about how to use the program should be based on a careful consideration of the farm's objectives, current financial status and preferences about risk. However, given that the MPP-Dairy program is not exactly like other risk management options because premiums are fixed for five years and are highly subsidized, there is a larger potential returns from positive MPP-Dairy traditional participation than from risk management approaches. It is relevant to understand the revenues that farms could experience with different participation strategies.

In this Decision Guide, we examine the outcomes from three strategies for a 100-cow farm with a 20,000-lb herd average (or, 2 million lbs per year of "production history" (PH) as defined under the program) if the MPP-Dairy program had been in place from 2007 to 2013:

- Catastrophic coverage (\$4 margin covered on 90% of milk);
- Coverage that results in the smallest net payments from MPP-dairy;
- Coverage that results in the largest payments from the MPP-Dairy program.

These three strategies provide an indication of the broad range of possible outcomes using MPP-Dairy for farms with a covered PH of less than 4 million lbs.

Catastrophic coverage would have cost a 100-cow producer \$0.01/cwt and would have returned \$0.08/cwt during these 7 years. A strategy to maximize MPP-Dairy payments would have covered 90% of PH in all years, but covered the maximumallowable \$8.00 margin in low-margin years (2009, 2012 and 2013) and chosen catastrophic coverage in higher-margin years (2007, 2008, 2010 and 2011). This strategy would have cost a 2,500-cow producer \$0.19/cwt and provided net payments of \$0.79/cwt. The strategy that provided the lowest returns was to choose the highest coverage (8.00/90) in years with no payments (2007, 2008, 2010 and 2011), and to low coverage levels in years when payments would have been made (2009, 2012, 2013). This strategy would have cost a 100-cow farm \$0.26/cwt and provided negative returns of -\$0.18/cwt although it would also have provided risk management protection. These results would be similar for somewhat smaller or larger dairies (any with a PH greater than 30 million lbs) but the actual dollar values would vary with farm size.

These results probably underestimate the net returns for catastrophic- and maximum-returns coverage and overestimate the costs of decisions resulting in the lowest returns because margins would have been lower if MPP-Dairy actually had been in operation during 2007 to 2013. In addition, it seems unlikely that farms would consistently make choices such as those assumed for the strategy that resulted in the lowest net returns. However, these results do not imply that participation during 2014-2018 would be exactly like those indicated here if a farm followed these participation strategies.

Table 1. Margin Coverage and Percentage of Production History Choices for Three MPP-Dairy Participation Strategies, Based on 2007 to 2013 Margins

Year, Outcome	Catastrophic Coverage	Lowest Net Returns from MPP- Dairy	Maximize Net Returns from MPP- Dairy
2007	4.00/90	8.00/90	4.00/90
2008	4.00/90	8.00/90	4.00/90
2009	4.00/90	4.50/25	8.00/90
2010	4.00/90	8.00/90	4.00/90
2011	4.00/90	8.00/90	4.00/90
2012	4.00/90	4.50/25	8.00/90
2013	4.00/90	5.50/90	8.00/90
Fees & premiums, \$/year	100	5,103	3,764
Fees & premiums, \$/cwt PH	0.01	0.26	0.19
Net payments, \$/year	1,694	-3,608	15,755
Net payments, \$/cwt PH	0.08	-0.18	0.79

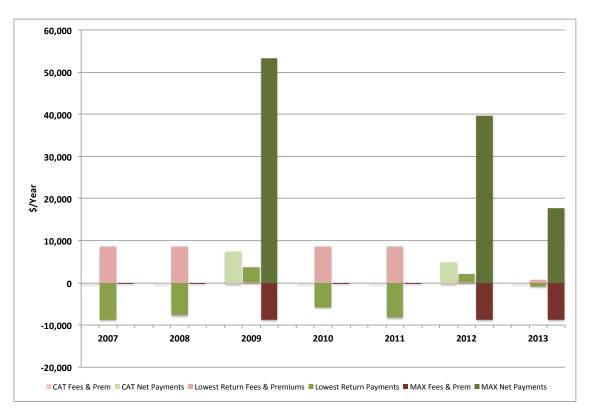


Figure 1. MPP-Dairy Fees & Premiums and Net Payments for Three Participation Strategies, 2007 to 2013

Participation strategies for MPP-Dairy have a large impact on fees & premiums required and net payments. The participation strategy with the lowest return would have cost a 100-cow dairy \$0.18/cwt during 2007 to 2013, but would have provided risk management to the farm.

The DMaP Team includes Marin Bozic, University of Minnesota, Brian Gould, University of Wisconsin, John Newton, University of Illinois, Charles Nicholson, The Pennsylvania State University, Andrew Novakovic, Cornell University, Mark Stephenson, University of Wisconsin, Cameron Thraen, The Ohio State University, and Christopher Wolf, Michigan State University.