Analyzing Proposed Dairy Margin Protection Program Enhancements

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Overview

• Motivation for the study
• Methods
• Results
• Conclusions
• Questions
Motivation

- Dairy Margin Protection Program hasn’t provided the support that was intended
- Very few producers have received payments over the first 3+ years of the program
- Major shift in the protection levels farmers are electing
Purpose

• Examine the program as it was designed to determine where some of the flaws are
  – Would the results look better in a different time period
• Looking for adjustments to the program to make it more effective
  – $5-9 coverage range instead of $4-8
  – Calculate the MPP payments on a monthly basis instead bi-monthly
What is in the Margin Protection Program

- The MPP provides
  - Base program starts if calculated margin falls below $4.00/cwt
    - Cost $100/Dairy
  - Supplemental program covers margins below $8.00/cwt at $0.50 increments
  - Can buy supplemental on 25 to 90 percent of production in 5 percent increments
## Premium Rates for Different Coverage Production Level

<table>
<thead>
<tr>
<th>Margin Coverage level</th>
<th>$/cwt (first 4 Million lbs)</th>
<th>$/cwt (4+ Million lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.50</td>
<td>0.010</td>
<td>0.020</td>
</tr>
<tr>
<td>5.00</td>
<td>0.025</td>
<td>0.040</td>
</tr>
<tr>
<td>5.50</td>
<td>0.040</td>
<td>0.100</td>
</tr>
<tr>
<td>6.00</td>
<td>0.055</td>
<td>0.155</td>
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<tr>
<td>6.50</td>
<td>0.090</td>
<td>0.290</td>
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<tr>
<td>7.00</td>
<td>0.217</td>
<td>0.830</td>
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<tr>
<td>7.50</td>
<td>0.300</td>
<td>1.060</td>
</tr>
<tr>
<td>8.00</td>
<td>0.475</td>
<td>1.360</td>
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</tbody>
</table>

- 2014 and 2015 premiums were reduced by 25% for coverage levels $4.50 to $7.50
- $4 Margin coverage is $100 per dairy
Margin Protection Program Calculation

- Margin = US all milk price (USDA/NASS) – 1.0728 x US corn price (USDA/NASS) – 0.00735 x soybean meal price (USDA/AMS, Central IL) – 0.0137 US alfalfa price (USDA/NASS)

- If the average margin falls below the trigger for “a consecutive 2 month” period then a payment is made (Jan-Feb, Mar-Apr, May-Jun, Jul-Aug, Sep-Oct, Nov-Dec)
2016 Net MPP Revenue

4 million lb. operation
Method

- Using AFPC Representative Dairy Farm production levels to calculate their net returns based off simulated margins
Representative Farm Process

- 3-6 producers in region
- Similar in size and scope
- Farms updated every 2-3 years with face-to-face meetings
- In many cases, we have a moderate and large farm in the same location to show the effect of economies of size
Bi-Monthly Net Returns
TXN3800
Bi-Monthly Net Returns for FLN550
WI145 SERF Results
$4-8 Net Returns/cwt
WI145 SERF Results
$5-9 Net Returns/cwt
WI145 Net Returns Using Different Start Years

![Graph showing WI145 net returns using different start years from 2000 to 2016. The graph indicates varying net returns with different start years, with notable increases around 2010 and 2012.](image-url)
MPP Payments at $6.50 Buy-up
Bi-Monthly vs Monthly
## Payment Differences TXN 3800
### Monthly vs Bi-Monthly
(Sept 2014 – Dec 2016)

<table>
<thead>
<tr>
<th>Payments</th>
<th>Total MPP ($)</th>
<th>Total $/Cow</th>
<th>Payments</th>
<th>Total MPP ($)</th>
<th>Total $/Cow</th>
<th>Diff $/Cow</th>
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</thead>
<tbody>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>$4.50</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>$5.00</td>
<td>0</td>
<td>0</td>
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<tr>
<td>$5.50</td>
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<td>1,364,714</td>
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</table>

- At $6.50 protection paying $44.31/cow/year
- At $8.00 protection paying $208.35/cow/year
# Payment Differences TXN3800

<table>
<thead>
<tr>
<th>Payments</th>
<th>Total MPP $</th>
<th>Total $/Cow</th>
<th>Payments</th>
<th>Total MPP $</th>
<th>Total $/Cow</th>
<th>Diff $/Cow</th>
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</table>
Summary

- The number of dairies signing up for the Margin Protection Program are decreasing and buying a lower protection levels each year.
- Starting the program in September of 2014 was detrimental to its success.
- Using a $5-9 range would have paid more often and the dairies likely would have continued to buy at a higher level.
Next Steps

• Future Research
  – Analyze all portions of the potential changes using whole farm simulation model on the representative dairies
  – Analyze additional alternatives to the current policy
    • Impact of 5 million pounds at the lower rate over 4 million pounds
  – Analyze the lower new price forecast expected out this spring