NEW FARM BILL CHOICES

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Our website:
http://www.arec.umd.edu/extension/crop-insurance
My Personal Journey

- Reading the language
- Working through examples.
- Preliminary lessons:
  - Everything is different.
  - Except where it isn’t: (PLC and countercyclical payments)
  - Everything is complicated.
  - Farmers will need to make some important decisions about program participation.

WARNING: TALOCA
There
Are
Lots
Of
Confusing
Acronyms

Crop Commodity Program Decisions
- What Program will you participate in for the next 5 years?
  - Price Loss Coverage (PLC)
  - With or without participation in supplemental coverage option (SCO)
  - Agricultural Risk Coverage, County option (ARC – CO)
  - Agricultural Risk Coverage, Individual option (ARC – IN)
- Update base acres?
- Update yields?
- Inter-relationships between Program decisions and crop insurance decisions.
Next step on my path to discovery: Constructing examples that include all elements of programs and insurance.

What we need for our examples:

- 7 different yield measures
- 6 different price measures
- 3 different area measures

Review of all assumptions

- Things which are known to a considerable degree:
  - Examples: county yields from the recent past, PLC reference prices.
- Characteristics of a particular farm, things known from that farm’s past.
  - Examples: program yields, base acres, Average Production History for insurance.
- Guesses or “scenarios” about the future.
  - Examples: future crop prices, future county yields.

Program alternatives under this scenario: Summary

<table>
<thead>
<tr>
<th>Program alternative</th>
<th>Market Income</th>
<th>Insurance Income</th>
<th>Program Payment</th>
<th>SCO Income</th>
<th>Insurance Payment</th>
<th>SCO Premium</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>County ARC + 75% rev.</td>
<td>58,300</td>
<td>1,300</td>
<td>5,922</td>
<td>0</td>
<td>2466</td>
<td>0</td>
<td>63056</td>
</tr>
<tr>
<td>PLC + rev. insurance</td>
<td>58,300</td>
<td>1,300</td>
<td>3,905</td>
<td>0</td>
<td>2466</td>
<td>0</td>
<td>61039</td>
</tr>
<tr>
<td>PLC + rev. insurance + SCO</td>
<td>58,300</td>
<td>1,300</td>
<td>3,905</td>
<td>7792</td>
<td>2466</td>
<td>1276</td>
<td>67465</td>
</tr>
</tbody>
</table>

*Normal* or average wheat income: 200 acres x 65 b/acre x $6.54/b = $85,020

86% of normal income: $73,117
Next step on my path to discovery:
Using the “decision tools”

The complicated details of the programs are built into a calculator.

Go to fsa.uspas.com Click on “APAS Custom Farm”

Lessons from the decision tools.

• Choice of PLC or ARC – CO can be made on a crop-by-crop basis.
• The “best” program for corn may not be the “best program” for wheat or barley.
• For two farmers in the same county:
  • ARC-CO will have identical per acre payments for a crop.
  • PLC will have different per acre payments depending on the farmer’s program yields.
Lessons from the decision tools.

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<table>
<thead>
<tr>
<th>County</th>
<th>Program yield</th>
<th>ARC-CO payment per acre</th>
<th>PLC payment per acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joe Baltimore</td>
<td>Baltimore</td>
<td>70</td>
<td>34.99</td>
</tr>
<tr>
<td>Hank Baltimore</td>
<td>Baltimore</td>
<td>210</td>
<td>34.99</td>
</tr>
</tbody>
</table>

Lessons from the decision tools.

• For two farmers with the same program yields but in different counties:
  • PLC will have identical per acre payments for a crop.
  • ARC-CO will have different per acre payments depending on the farmer’s county.

<table>
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<th>PLC payment per acre</th>
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<tbody>
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<td>Joe Baltimore</td>
<td>Baltimore</td>
<td>70</td>
<td>34.99</td>
</tr>
<tr>
<td>Joe Calvert</td>
<td>Calvert</td>
<td>70</td>
<td>16.55</td>
</tr>
<tr>
<td>Joe Caroline</td>
<td>Caroline</td>
<td>70</td>
<td>45.84</td>
</tr>
</tbody>
</table>

Why does ARC-CO differ from county to county?

<table>
<thead>
<tr>
<th>County</th>
<th>Corn ARC-CO (5 year average)</th>
<th>average yield 2000-2013</th>
<th>Olympic average yield 2008-13</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Mary’s</td>
<td>17.41</td>
<td>100</td>
<td>94</td>
</tr>
<tr>
<td>Queen Anne’s</td>
<td>20.43</td>
<td>131</td>
<td>114</td>
</tr>
<tr>
<td>Baltimore</td>
<td>34.99</td>
<td>126</td>
<td>135</td>
</tr>
<tr>
<td>Dorchester</td>
<td>50.18</td>
<td>132</td>
<td>130</td>
</tr>
</tbody>
</table>

When “normal” long term yields are higher than recent yields, then a return to normal will mean low or no ARC-CO payments.

When “normal” long term yields are lower than or close to recent yields, then a return to normal is more likely to generate ARC-CO payments.
Lessons from the decision tools.

- Choosing the “right” program can make a big difference:
  - $10 per corn base acre in Calvert Co.
  - $39 per corn base acre in Caroline Co.

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<td>70</td>
<td>45.84</td>
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</table>

Lessons from the Decision Tools

- Corn: ARC-CO is better than PLC.
- Soybeans: ARC-CO is better than PLC.
- Wheat: PLC or ARC-CO case by case.
- Barley: PLC is better than ARC-CO.

- (“Usually” better.)

- SCO (Supplemental Coverage Option) expected indemnities do not cover premiums for corn. (Tentative conclusion: needs further confirmation.)

Baltimore County average annual expected payments during 2014-2018

<table>
<thead>
<tr>
<th></th>
<th>ARC-CO</th>
<th>PLC</th>
<th>SCO indemnity</th>
<th>SCO premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>34.96</td>
<td>10.71</td>
<td>7.53</td>
<td>8.67</td>
</tr>
<tr>
<td>Wheat</td>
<td>16.23</td>
<td>10.96</td>
<td>Not available</td>
<td></td>
</tr>
<tr>
<td>Soybeans</td>
<td>22.21</td>
<td>1.46</td>
<td>3.42</td>
<td>5.20</td>
</tr>
<tr>
<td>Barley</td>
<td>23.55</td>
<td>46.92</td>
<td>Not available</td>
<td></td>
</tr>
</tbody>
</table>

Wheat is a close call, and PLC would be higher if a farmer’s payment yield was above 67, instead of the 45 used in these calculations.
Lessons from the Decision Tools

- To evaluate individual ARC, run one scenario with the "best" individual choices for your crops, and a second scenario for ARC-IN.
- In the sample cases I have run, ARC-IN is never better.

Reallocation of Base

- Two choices:
  - Keep the base acres allocated as they are now.
  - Keep the total number of base acres the same, but reallocate them so they reflect recent average cropping practices.
  - 5 year average returns per acre.

<table>
<thead>
<tr>
<th></th>
<th>Corn</th>
<th>Soybeans</th>
<th>Barley</th>
<th>Wheat</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Mary's</td>
<td>17.41</td>
<td>14.70</td>
<td>55.46</td>
<td></td>
</tr>
<tr>
<td>Queen Anne's</td>
<td>20.43</td>
<td>19.47</td>
<td>34.12</td>
<td>11.56</td>
</tr>
<tr>
<td>Baltimore</td>
<td>34.99</td>
<td>22.21</td>
<td>46.92</td>
<td>16.23</td>
</tr>
</tbody>
</table>

Barley base acres are a goldmine (if price projections used here are correct). If you have them, but now grow little or no barley do not reallocate. If you don't have barley base, but you've grown barley lately, do reallocate.

The further we go into the future, the more the prognosicators differ.

$4.95 trigger price for soybean PLC payments

$4.95 trigger price for barley PLC payments
How much does future price prognostication matter?

5 year PLC for Barley, using CBO prices, FAPRI prices, and USDA prices, and FAPRI prices.

<table>
<thead>
<tr>
<th>Program yield used</th>
<th>CBO prices</th>
<th>FAPRI prices</th>
<th>USDA prices</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Mary’s</td>
<td>65</td>
<td>31.26</td>
<td>22.94</td>
</tr>
<tr>
<td>Queen Anne’s</td>
<td>40</td>
<td>19.24</td>
<td>14.12</td>
</tr>
<tr>
<td>Baltimore</td>
<td>55</td>
<td>26.45</td>
<td>19.41</td>
</tr>
</tbody>
</table>

Barley base acres are a goldmine if USDA projected prices are correct. Less so if FAPRI price projections are correct.

What about Dairy?

- Enrollment decision in Market Protection Program (MPP) due December 5. (Friday).
- You can choose:
  - Basic ($4.00) free margin protection for 2015 ($100 flat fee).
  - Higher protection (up to $8.00) for 2015 with a premium.
  - No enrollment for 2015, with the option of entering the program in 2016.

Forecasted margin based on futures prices in late October 2014.

Source: Thraen, Ohio State, Buckeye Dairy News.
http://dairy.osu.edu/bdnews/Volume%2016%20issue%205/files/Volume%2016%20Issue%205.html
Probability of an MPP payment during 2015.

For 2015, premiums are much higher than expected indemnities.

Dollars spent in premiums for each dollar of expected indemnity payment, 2015, at different levels of coverage.

For coverage levels less than $6, there is zero expected indemnity payment.

For small dairy farms, $3-5 in premiums for each dollar in expected payments.

For large dairy farms, as much as $15+ in premiums for each dollar in expected payments.