Crop Insurance Options and
Strategies for Row Crops in 2008

Rod M. Rejesus
Assistant Professor and Extension Specialist
Dept. of Ag. and Resource Economics
NC State University
Raleigh, NC 27695

Current Agricultural Economy for Row Crops Workshop
Bertie County Extension Center, Windsor, NC
January 23, 2008

GOALS TODAY

- Provide a basic overview of crop insurance alternatives for row crops in NC – corn, soybeans, wheat
- Provide a brief description of how these different insurance alternatives work
- Present some strategies to consider when choosing among the different insurance products

Introduction

- Crop insurance is one of the most important tools for managing risk in U.S. agriculture
- USDA-Risk Management Agency (RMA) introduced a number of different insurance products over the years
- Farmers have a several alternatives to choose from
Introduction

• Why is the choice of crop insurance product important?
• Each producer face different kinds/levels of risk depending on their own situation
• Not properly addressing production risks has financial consequences
  – Affects bottomline

Introduction

• Crop insurance is one strategy to manage production and/or price risk
  – Yield-based and revenue-based plans
• Not costless – weigh premium (cost) with the expected risk reduction (benefits)
  – Assess your own situation

Introduction

• Need to find most appropriate crop insurance product(s) to properly address their own risk situation
• Information on the different products and how to evaluate them is valuable
Crop Insurance Alternatives for Row Crops in NC

- **Farm level Products**
  - Actual Production History (APH)
  - Catastrophic Coverage (CAT)
  - Crop Revenue Coverage (CRC)
  - Revenue Assurance (RA-BP/HP)
  - Indexed Income Protection (IIP)
  - Adjusted Gross Revenue – Lite (AGR-Lite)

- **County level Products**
  - Group Risk Plan (GRP)
  - Group Risk Income Plan (GRIP BP/HP)

---

Crop Insurance Alternatives for Row Crops in NC

- **Farm level Products**
  - Yield-based Insurance
    - APH
  - Revenue-based Insurance
    - Without guarantee increase
      - RA-BP (base price option) and IIP
    - With guarantee increase
      - RA-HP (harvest price option) and CRC
    - Multi-crop – AGR-Lite

- **County level Products**
  - County Yield-based
    - GRP
  - County Revenue-based
    - GRP-BP option
    - GRP-HP option
Crop Insurance Alternatives for Row Crops in NC

• For Revenue-based Products (not AGR-lite):
  – Base Price – price before planting (i.e. corn BP is Feb. ave. closing price for CBOT Dec. futures contract)
  – Harvest Price – price at harvest (i.e. corn HP is Nov. ave. closing price for CBOT Dec futures contract)

Crop Insurance Alternatives for Row Crops in NC

• For Revenue-based Products:
  – Products with guarantee increase allows revenue guarantee to be calculated using HP if HP > BP
  – Actual price received by producers NOT used in calculating your actual revenue

Crop Insurance Alternatives for Row Crops in NC

• Corn - APH, CRC, RA, IIP, GRP, GRIP
• Soybeans - APH, CRC, RA, IIP, GRP, GRIP
• Wheat – APH, CRC, GRP, GRIP
• Cotton – APH, CRC, GRP, GRIP
How Does It Work? APH Policy

- Insures farm-level yields
- Yield coverage – 50% to 85% of APH yield
- Price coverage – 60-100% of RMA price
- Unit coverage – Basic and Optional units
- Premiums – depends on county, unit, APH yield, yield and price coverage

pack promise

How Does It Work? RA-BP and IIP

- Insures farm-level revenue
- Rev. coverage – 50% to 85% (IIP up to 75%)
- Price coverage – Base Price
- Unit coverage – Basic, optional, enterprise, whole farm units; IIP -- enterprise
- Premiums – depends on county, unit, APH yield, coverage level

pack promise

How Does It Work? RA-BP and IIP

- A note on IIP – same as the Income Protection Plan (IP) except that IIP is indexed to the county
- APH yield in IIP used to calculate guarantee is different from actual APH yield (may be higher or lower)
- But the mechanism for payment is same with IP (and the example that follows)

pack promise
How Does It Work? RA-HP & CRC

- Insures farm-level revenue
- Rev. coverage – 50% to 85%
- Price coverage – BP or HP (Allows guarantee to increase if HP > BP at harvest)
- Unit coverage – Basic, optional, enterprise; in RA-HP – plus whole farm
- Premiums – depends on county, unit, APH yield, coverage level

How Does It Work? AGR-Lite

- Whole-farm revenue protection plan
  - Insures adjusted gross revenue of whole farm (multiple crops/livestock) rather than individual crops
- Most farm-raised crops, animals, and animal products covered
- Can stand alone or with other insurance plans (APH)
  - Get discount if combined with APH

Howe Does it Work? AGR-Lite

- Uses producer’s 5-year historical farm average revenue as reported on IRS tax form (Schedule F) and annual farm report
- Have liability limits and other eligibility requirements
  - Lots of paperwork!
  - Mar. 15 – Sales Closing Date
  - Contact your Insurance Agent for details!
How Does It Work? GRP

- Based on county-level yields
  - Can have low individual yield and not get a payment
- Coverage level – 70% to 90%
- Protection level – % of $ max. value set by RMA for the county (60% to 150%)
- GRP premiums depend on county, coverage and protection level

How Does It Work? GRP Example

- Notes on GRP Payments:
  - Dependent on county yield reported by NASS
  - Released in March of the year following harvest – thus payments will take longer to receive
  - Less paperwork – no yield reports (only acreage reports) and no unit structures to worry about

How Does It Work? GRIP

- Based on county-level revenues
  - Can have low individual revenue and not get a payment
  - Use “base” price and “harvest” price
- Coverage level – 70% to 90%
- Protection level – % of $ max. value set by RMA for the county (60% to 150%)
- GRP premiums depend on county, coverage and protection level
How Does It Work? GRIP

• Notes on GRIP Payments:
  – Have “harvest” price option (to increase guarantee if HP > BP)
  – BP and HP used in calculations NOT based on actual prices received by producers
    • Set by RMA based on CBOT prices
  – Also rely on NASS county estimates, thus payments can take awhile

How Does it Work? Premium Costs Across Products

• Group products are typically less expensive than others
• Revenue products with HP options are typically more expensive
• APH product and revenue products without HP option somewhere in the middle

How Does it Work? Premium Cost Example

• Corn in Bertie County, NC (2007), non-irrigated, optional unit, 140 bu/ac APH, 70% coverage level

<table>
<thead>
<tr>
<th>Product</th>
<th>Est. Premium ($/ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>APH</td>
<td>10.89</td>
</tr>
<tr>
<td>CRC</td>
<td>17.80</td>
</tr>
<tr>
<td>RA-HP</td>
<td>14.96</td>
</tr>
<tr>
<td>RA-BP</td>
<td>12.63</td>
</tr>
<tr>
<td>HP</td>
<td>7.32</td>
</tr>
<tr>
<td>GRP</td>
<td>2.18</td>
</tr>
<tr>
<td>GRIP</td>
<td>7.32</td>
</tr>
</tbody>
</table>
Strategies and Recommendations

• Issues to keep in mind when choosing the right crop insurance product for you:
  – Year-to-year yield variability
  – Cash flow requirements
  – Cash Reserves
  – Subsidized premium

<table>
<thead>
<tr>
<th>Coverage Level %</th>
<th>50</th>
<th>55</th>
<th>60</th>
<th>65</th>
<th>70</th>
<th>75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium subsidy %</td>
<td>69</td>
<td>62</td>
<td>56</td>
<td>50</td>
<td>45</td>
<td>40</td>
</tr>
<tr>
<td>Your Premium Share %</td>
<td>33</td>
<td>36</td>
<td>34</td>
<td>41</td>
<td>41</td>
<td>46</td>
</tr>
</tbody>
</table>

packpromise

Strategies and Recommendations

• Evaluate the different products based on the “Risk-Return” Framework
• Returns (over time):
  – Which product gives the highest payments?
  – Which product pays out more often?
  – Which product has the lowest premiums?

packpromise

Strategies and Recommendations

• Risks (over time):
  – How do the different products change the likelihood of a profit shortfall?
  – What is the probability of receiving below break-even revenues for the different products?
• After using Risk-Return framework, look at policy details and consider the following product-specific recommendations

packpromise
Strategies and Recommendations

- APH Policy
  - Only protects yield losses, need to protect price declines with hedging/forward contracts
  - Use as much optional units as you can (more flexible)
  - Consider getting at least CAT
    - For producers with fairly stable production
    - Its essentially free!

Strategies and Recommendations

- RA-BP and IIP
  - Provides yield and price protection
  - May not be for aggressive users of forward contracts (can eliminate risk protection from insurance)
  - Not advisable in a volatile market (with a high chance of price upswings)
  - For IIP, consider how your farm yields relate to county yields

Strategies and Recommendations

- RA-HP and CRC
  - Provides yield and price protection
  - For aggressive users of forward contracts or futures (HP option tempers hedging losses)
  - Better suited for a volatile market (with a high chance of price upswings)
  - Typically more expensive (lowers returns but provides good risk protection)
Strategies and Recommendations

- **GRP and GRIP**
  - County-level yield/revenue protection
  - Good for farms that track county yields fairly well (i.e. no farm yields significantly below county in the past, no high risk ground)
  - Less expensive but payments come later
  - For producers in a strong financial position (one bad hit won’t terminate business)

- **AGR-Lite**
  - Revenue protection for multiple crops
  - For diverse operations
  - For producers with good records
  - For producers that can sell crop at prices higher than price elections/BP/HP.

- Contact your insurance agent for more details about the policies
- Effectively communicate your risk management goals to your agent!
Additional resources

- USDA-RMA Website (http://www.rma.usda.gov)
  - Fact Sheets; Premium Calculators
  - Official Announcements
- USDA-RMA Raleigh Regional Office
  - Information pertaining to North Carolina
- NC State Crop Insurance Website
  - http://www4.ncsu.edu/~rmrejesu/ncsu_crop_insurance_extension_page.htm
  - I will put my presentations & extension materials here

More Questions?

- Contact me:
  - Rod M. Rejesus
    Department of Agricultural and Resource Economics
    NC State University
  - Tel. No. (919)513-4605
  - Email: rod_rejesus@ncsu.edu