

**After the Drought:
Crop Insurance and
Risk Management in 2013**

2013 UNL Women in Agriculture Conference

Prepared by:
Monte Vandevveer
Otoe Co. Extension Educator, Univ. of Nebraska-Lincoln

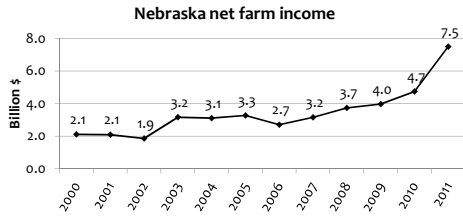
Outline

- * **How bad was 2012?**
 - * The financial picture before the drought
 - * Lower yields, higher prices in 2013
 - * Relief from crop insurance in 2012
- * **Production and crop insurance issues for 2013**
 - * Yield expectations
 - * Updating APH yield history
 - * Insurance premiums in 2013
 - * Coverage type and coverage levels

**Where did we stand
at the beginning of 2012?**

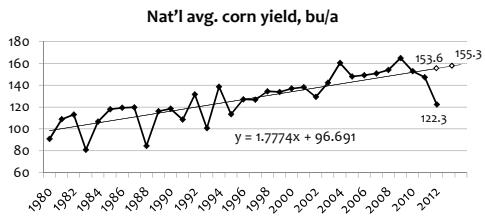
- * The financial picture before the drought
 - * Record net farm incomes in 2010 and 2011
 - * \$4.7 billion in 2010, \$7.5 billion in 2011
 - * (source: USDA Economic Research Service)
 - * Strong crop prices in these years, low grain stocks at beginning in 2012
 - * Ethanol growth driving demand
 - * Supply side: national yields below trend in 2011

Nebraska net farm income in 2011 broke 2010 record by \$2.8 billion



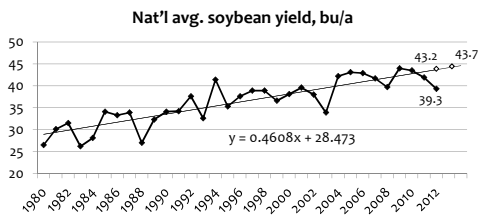
Source: USDA Economic Research Service

2012 national average corn yield was about 21% below trend



Source: USDA National Ag Statistics Service

2012 national average soybean yield was about 9% below trend



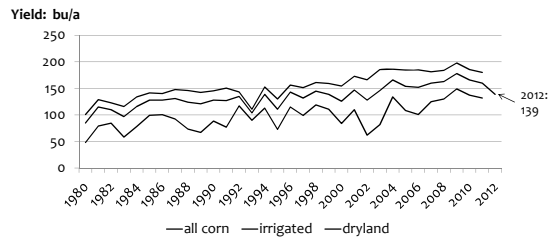
Source: USDA National Ag Statistics Service

Nebraska yields down in 2012; slightly better than national averages

- * 2012 results
 - * Nebraska average corn yield estimated at 139 bu/a (vs. national average of 122.3 bu/a)
 - * Nebraska average soybean yield estimated at 41 bu/a (vs. national average of 39.3 bu/a)
- * Nebraska yields supported by large irrigated area
 - * About 58-60% of corn acres, 46% of soybean acres in Nebraska are irrigated

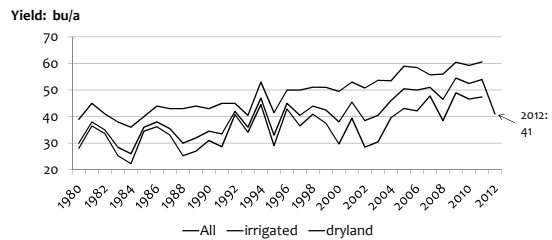
Source: USDA National Ag Statistics Service

Corn in Nebraska in 2012: overall yield down 13% from 2011



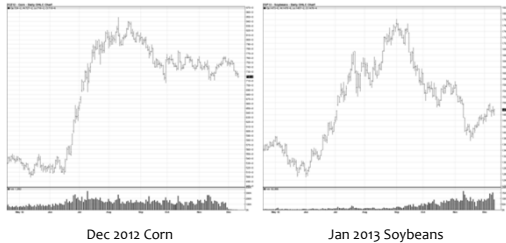
Source: USDA National Ag Statistics Service

Soybeans in Nebraska in 2012: overall yield down 24% from 2011



Source: USDA National Ag Statistics Service

Crop prices rose sharply in 2012 when drought effects became clear



So how do these effects sort out for Nebraska farm income in 2012?

- * Lower yields, higher prices: which effect was bigger?
- * Big differences between irrigated and dryland
 - * Yield losses not as sharp; may have been compensated by higher prices
 - * Dryland yields hit much harder; higher prices don't help if you don't have many bushels to sell
- * Also need to add in payments from crop insurance

Crop insurance now covers most of major crop acres in Nebraska

2012 Nebraska acreage

Crop	Planted Acres	Insured Acres	Insurance Participation Rate
Corn	9,950,000	8,975,138	90.2%
Soybeans	5,050,000	4,582,441	90.7%
Wheat	1,380,000	1,244,741	90.2%

Sources: USDA National Ag Statistics Service; USDA Risk Management Agency

Crop insurance payments in Nebraska for 2012 losses

- * Final amount not yet known
- * Can be estimated using the insurance loss ratio
 - * $LR = \text{Total Indemnities} / \text{Total Premiums}$
 - * Total Premiums in 2012 = \$667.5 million
 - * Loss ratio in 2002 drought = 2.01

Final loss ratio	1.50	1.75	2.00
Insurance payout to farmers	\$1.001 billion	\$1.168 billion	\$1.335 billion

Crop insurance in 2013: Updating APH yield history

- Review: Actual Production History
- * 4 to 10 year history
 - * Use own production records when available
 - * Use county-based transition ("T") yields for missing years
 - * T-yields get bigger discount if more years of own records are missing
 - * Producers select coverage level between 50% and 85% of APH average yield

Special help on your APH: yield cups

- Yield cups: your APH average cannot decline more than 10% from one year to the next
- * Still use actual 2012 yield in history, but overall APH is cupped

	2008	2009	2010	2011	2012
Actual yield	128	134	144	120	40
APH average				131.5	113.2
Cupped APH				= 90% of 131.5	118.4

More help for your APH: yield floors

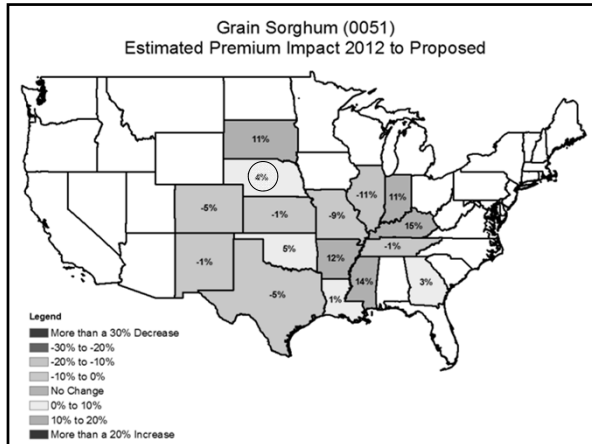
- * Yield floors: your APH average cannot be below some fraction of the county T-yield
 - * One year of own records: 70% of county T-yield
 - * 2, 3, 4 years of own records: 75% of county T-yield
 - * 5 or more years of records: 80% of county T-yield
- * May be most helpful for those with shorter yield histories: APH average less affected by crop failure

Crop insurance premiums: higher in 2013 after a big loss in 2012?

- * Premiums have 3 main components:
 - * Guaranteed yield: APH avg. x % coverage level
 - * Crop price: value of guaranteed bushels
 - * Premium rate: reflects riskiness of yield (expressed as %)
- * Example for dryland corn in York County:
 - * Guaranteed yield: $75\% \times 144 \text{ bu/a} = 108 \text{ bu/a}$
 - * Corn price for insurance: \$5.68/bu (2012 price)
 - * Rate for 75% RP coverage: 0.02936
 - * Premium = $0.02936 \times 108 \text{ bu/a} \times \$5.68/\text{bu} = \$18.01/\text{a}$

How will each premium component change in 2013?

- * Insurance rates
 - * Based on long-term experience; one bad year doesn't mean rates will go up
 - * Long-term loss experience for crop insurance in Nebraska suggests current rates provide a different picture
 - * Results of long-term study: rates may actually decline for some crops in spite of recent losses



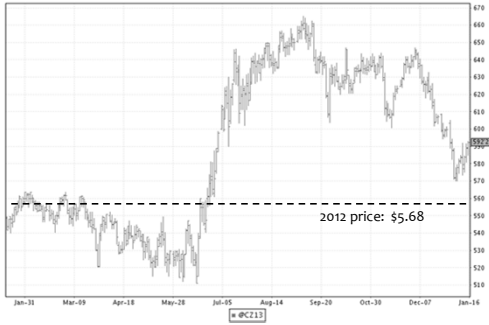
How will each premium component change in 2013?

- * Guaranteed yields
 - * Guaranteed yield = APH average x guarantee level (%)
 - * Adding a low 2012 yield to the APH history will reduce the average
 - * Result: lower guaranteed yield
 - * Longer yield histories see smaller effect from one bad year
 - * Yield cups or floors should limit this effect

How will each premium component change in 2013?

- * Crop prices for insurance
 - * Use futures prices at insurance sign-up time (prior to planting) to establish expected value of crop at harvest
 - * Corn: use February average price of the CBOT December futures contract
 - * Soybean: use February average price of the CBOT November futures contract

Dec 2013 Corn: still above year-ago



Nov 2013 Soybeans: also above 2012 level

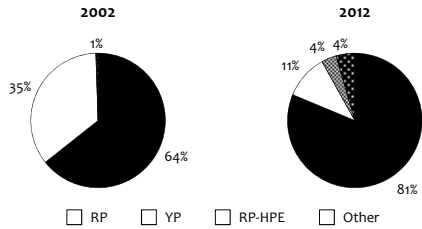


**Premiums in 2013:
direction uncertain**

- * Insurance rates: ↓ for corn, soybeans
 wheat: no change, sorghum ↑
- * Guaranteed yields: ↓ after lower 2012 yields
- * Crop prices: ↑ from 2012 (uncertain)
- * Competing effects: will higher crop prices (if they hold)
 swamp the effect of lower yields and rates?

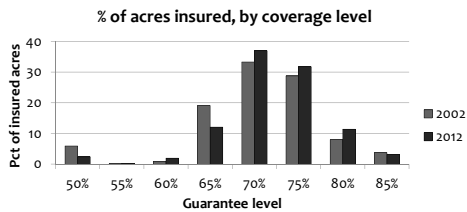
Revenue coverage the most popular form of crop insurance in Nebraska

Percent of Nebraska insured acres, by insurance plan



Source: USDA Risk Management Agency

70% of average is still the most popular coverage level



Source: USDA Risk Management Agency

2013 UNL Crop Production Clinics

*Questions?

*Comments?

*Thank you
