NAAFP Farm Bill Decision Aid Insurance Tool

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November 16, 2014

Decision Aid's Insurance Tool

- ARC and PLC interact directly with crop insurance to provide a safety net for the 2014 farm bill
- Choosing the underlying insurance policy affects the amount of coverage available for SCO
- ARC provides a shallow loss coverage to reduce the effective deductible for the underlying crop insurance policy
- The Decision Aid offers a tool for analyzing the benefits and costs for alternative levels of insurance coverage and type of insurance policy under ARC and PLC

Decision Aid's Insurance Tool

- The Decision Aid simulates all possible combinations of insurance and ARC/PLC: 320 scenarios for non-cotton crops and 1,295 for cotton
- Results for the simulated scenarios are presented in terms of the average total receipts for the the life of the farm bill.
  - Market receipts
  - PLC or ARC average payments
  - SCO average indemnities net of premiums
  - Average insurance indemnities net of premiums
- Total receipts are calculated using "future" planted acres 2014-2018 provided for the crop, historical risk for crop yields (hopefully you provided 10 years), historical price risk (1982-2013), and the user's assumed average annual prices
- The base insurance scenario is the current insurance provided for the crops in the "Edit" screen

Insurance Analyzer

Nebraska Demo Farm's Farm Units

FSA #	Farm Name	Crop Practice	
1875	Home place	Grain sorghum Non-Irrigated	Edit Yields
1875	Home place	Grain Corn Non-Irrigated	Edit Yields
1875	Home place	Commodity Soybeans Non-Irrigated	Edit Yields
1875	Home place	Winter Wheat Non-Irrigated	Edit Yields

New Farm Unit

Select insurance to start the analysis

Available Tools

Help!

Yield Update

This tool calculates values for PLC yields using yield histories for your units listed on the left.

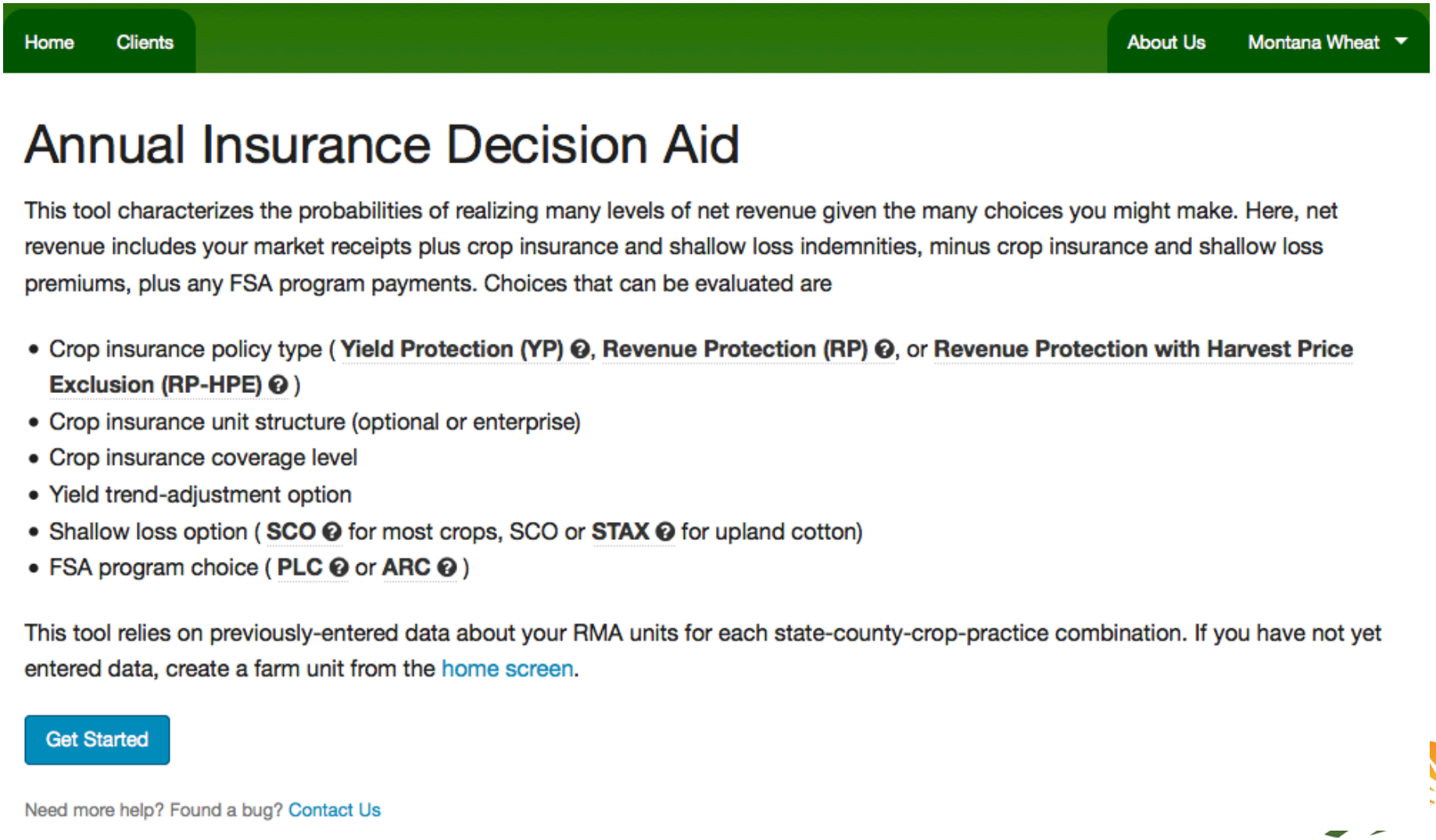
Base Acre Reallocation & PLC/ARC Decision Aid

This tool helps you decide whether to reallocate your base acres and whether to choose PLC, ARC-C, or ARC-I for each farm unit based on your data.

Farm Bill 2014 Insurance

This tool calculates net revenue for alternative insurance choices available through the 2014 Farm Bill and RMA.

Crop Insurance Interaction with PLC, and ARC



Crops on the Farm Eligible for Insurance are in Blue

Annual Insurance Decision Aid

Select a Crop

Your data reflect the following state-county-crop-practice combinations. Please choose the combination you wish to use for the analysis.

- Non-Irrigated Wheat in Richardson County, NE
- Non-Irrigated Grain sorghum in Richardson County, NE
- Non-Irrigated Soybeans in Richardson County, NE
- Non-Irrigated Grain Corn in Richardson County, NE

Crops on the farm which are eligible for insurance analysis are in blue. If a crop is not listed it is because RMA does not offer insurance for the particular crop/practice/type specified in the “Edit” input screen.

Your Data for Non-Irrigated Grain Corn in Richardson County, NE

For the state-county-crop-practice combination you just chose, your data contain the units listed below. These units will be both individually and jointly analyzed, for evaluating optional and enterprise unit structure crop insurance elections.

FSA #	Unit Name	CC Yield	APH
1875	Home place	80	161.0000

Projected Prices

For Grain Corn, RMA sets a 2014 projected price of 4.6200 dollars per bushel. If you would like to use a different projected price for the analysis, enter your price below.

Projected Price

4.62

Your Price Outlook

Specify your outlook for national marketing year average prices for Grain Corn in dollars per bushel

Grain Corn

	FAPRI	USDA	in $/bu
2014	3.4000	3.5000	3.4000
2015	3.7400	3.6800	3.7400
2016	3.9800	3.3800	3.9800
2017	4.1900	3.4700	4.1900
2018	4.2000	3.5300	4.2000

Analyze Options

User's Input Information for the Selected Crop

Richardson County, Nebraska

Corn, Non-Irrigated

Price Basis: -0.5

Total 2014 planted acres: 57.1

Simulation Info

Corn	2014	2015	2016	2017	2018
Projected Price	4.6200	3.9168	4.1682	4.3881	4.3986
Ave. Sim. National Price	3.4393	3.7839	4.0294	4.2405	4.2446
Ave. Sim. Harvest Futures	3.4956	3.8445	4.0929	4.3062	4.3178
Ave. Sim. County Yield	149	152	155	157	160

Results

Top Five Crop Insurance and Farm Policy Combinations Selected Based on Expected Total Net Returns 5 Years

Good Option Combinations

The following option combinations result in net revenue distributions with characteristics that would be considered desirable by many producers.

FSA Program	Policy Type	Coverage %	Unit Structure	Shallow Loss Protection
PLC	RP-HPE	85%	Optional	SCO
ARC-C	RP-HPE	85%	Optional	None
PLC	RP-HPE	85%	Optional	None
PLC	RP	85%	Optional	SCO
PLC	RP-HPE	80%	Optional	SCO

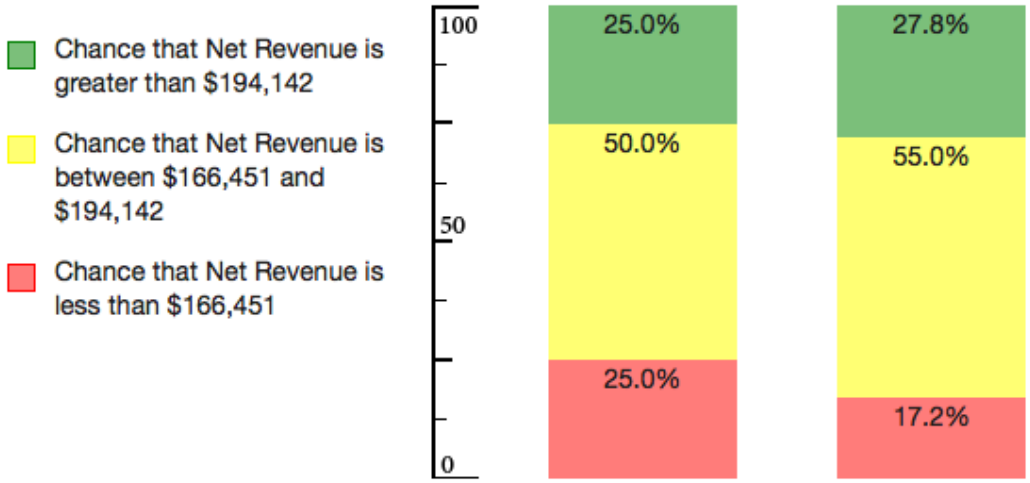
Change Prices | Choose another Crop

These are the best of the 320 scenarios simulated for non-cotton crops and 1,295 for cotton.

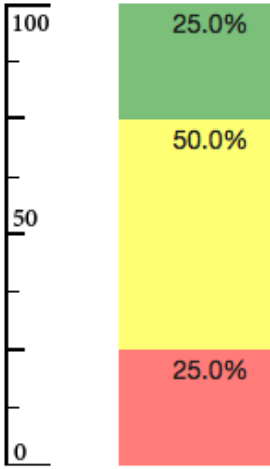
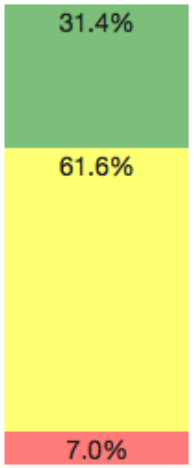
Insurance Analyzer

- Drop down menus are provided to allow user to test alternative combinations of insurance and farm policy
- Results are presented as the probability of total revenue for 5 years being less than or grater than target levels
  - Net Revenue is market receipts plus PLC or ARC payments minus insurance and SCO premiums
- Lower and upper targets for net revenue set assuming “ARC-C with current insurance option,” and a 25% chance of being less than lower target and 25% chance of exceeding upper target
- Experiment with ARC vs. PLC, different levels of insurance, and SCO added to PLC to reduce the red and increase the green

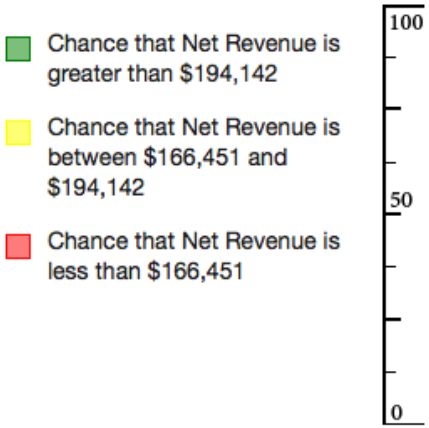
The left hand column is the default insurance and policy combination. The insurance level and type are entered as the current insurance information in the Edit screen



	Reference Scenario	Alternative Scenario
Average Net Revenue	$181,608	$184,540
FSA Program	ARC-C	PLC
Policy Type	RP	RP
Coverage Level	70%	75%
Unit Structure	Optional	Optional
Shallow Loss Option	None	SCO

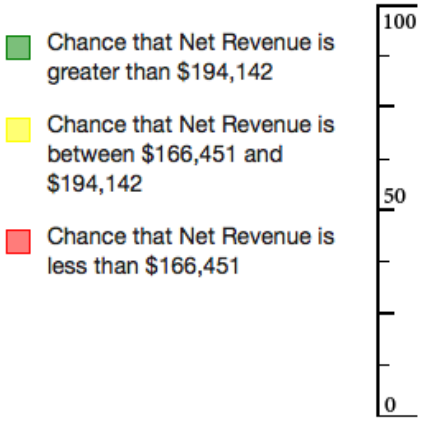
	Reference Scenario	Alternative Scenario
Chance that Net Revenue is greater than $660,763 Chance that Net Revenue is between $520,672 and $660,763 Chance that Net Revenue is less than $520,672		
Average Net Revenue	$596,913	$631,276
FSA Program	ARC-C	PLC
Policy Type	RP	RP
Coverage Level	75%	75%
Unit Structure	Optional	Optional
Shallow Loss Option	None	None

The chart below characterizes the probabilities of realizing various levels of net revenue f
market receipts plus crop insurance and shallow loss (SCO) indemnities, minus crop insu
FSA program (PLC or ARC) payments.

	Reference Scenario	Alternative Scenario
		
Average Net Revenue	$181,608	$179,056
FSA Program	ARC-C	PLC
Policy Type	RP	RP
Coverage Level	70%	60%
Unit Structure	Optional	Optional
Shallow Loss Option	None	SCO

Results

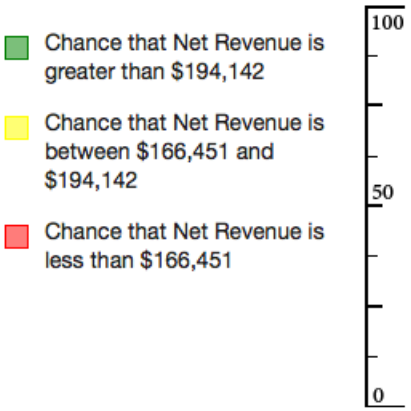
The chart below characterizes the probabilities of realizing various levels of net revenue f
market receipts plus crop insurance and shallow loss (SCO) indemnities, minus crop insu
FSA program (PLC or ARC) payments.



	Reference Scenario	Alternative Scenario
Average Net Revenue	$181,608	$185,793
FSA Program	ARC-C	PLC
Policy Type	RP	RP
Coverage Level	70%	85%
Unit Structure	Optional	Optional
Shallow Loss Option	None	None

Results

The chart below characterizes the probabilities of realizing various levels of net revenue f
market receipts plus crop insurance and shallow loss (SCO) indemnities, minus crop insu
FSA program (PLC or ARC) payments.



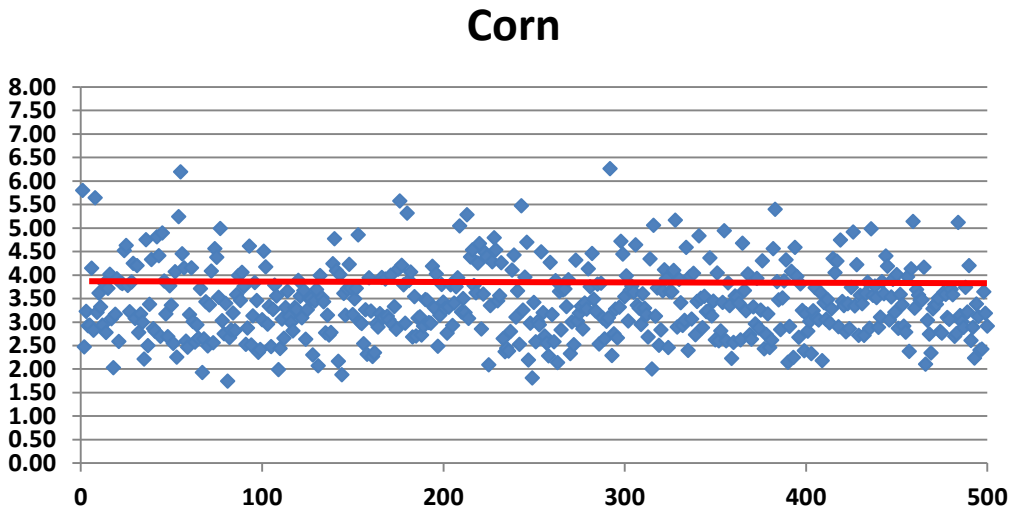
	Reference Scenario	Alternative Scenario
Average Net Revenue	$181,608	$185,969
FSA Program	ARC-C	PLC
Policy Type	RP	RP
Coverage Level	70%	80%
Unit Structure	Optional	Optional
Shallow Loss Option	None	SCO

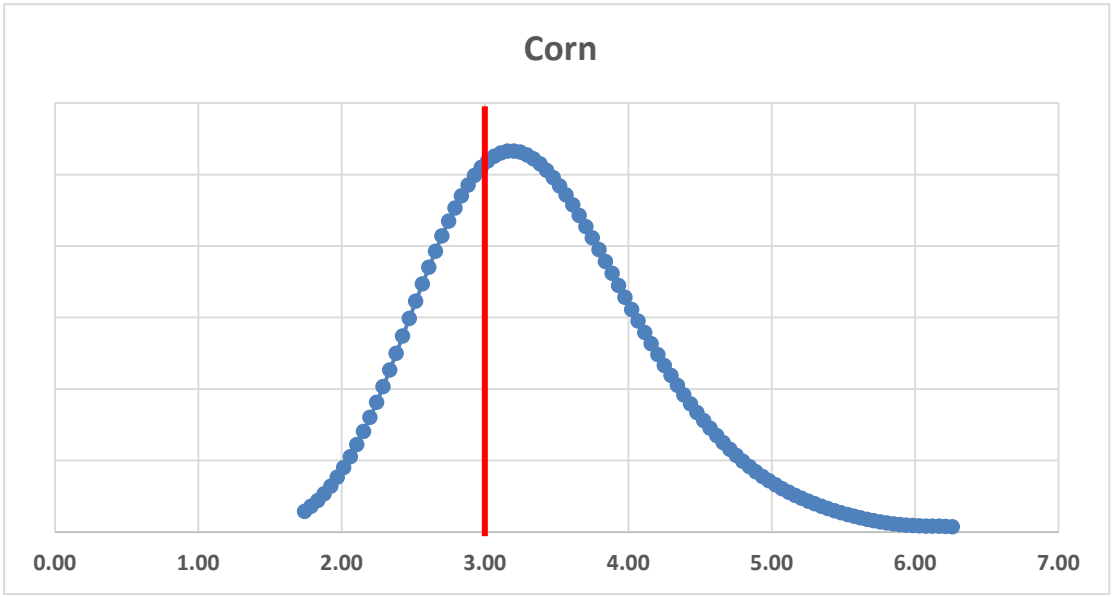
Risk is Key to Decision

- Price risk exists because we do not know what the prices will be for the next 5 years
- If user specifies a mean corn price of $3.40/bu there is a 69% chance of price less than the reference price
  - See the number of dots in the next slide that are below the reference price out of 500 simulated prices
  - We simulate 500 draws of prices and yields for each year to calculate the average payments for different policy and insurance options under risky conditions
  - Decision Aid simulates prices and county yields using historical risk for 1982-2013
  - We include all correlation of prices and yields
- For your farm enter 10 or more yields to get the full benefit of the insurance option

Risk is Key to Decision

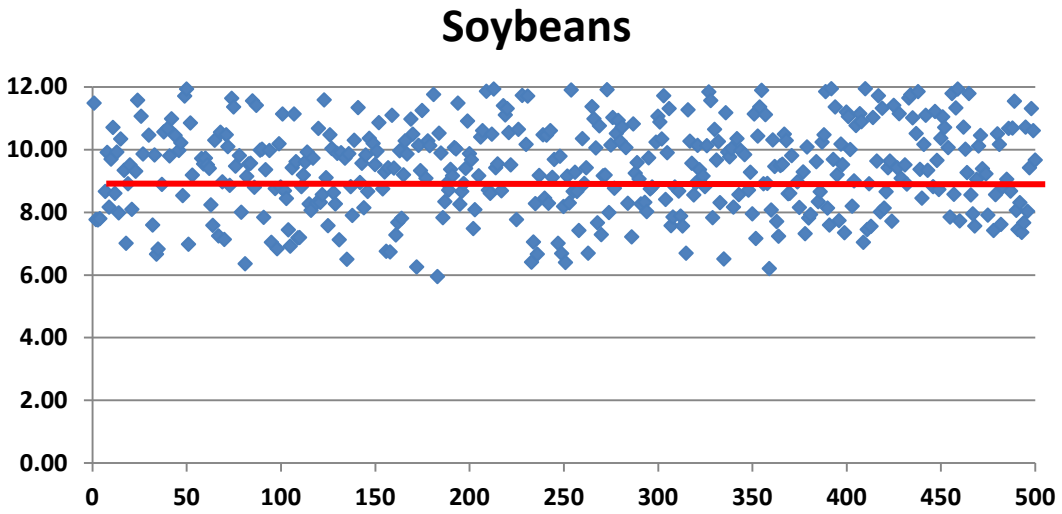
	Corn
MYA	3.40
Ref Price	3.70
Average	0.48
No. of Zeros	155
P(=zero)	0.31
P(payment)	0.69

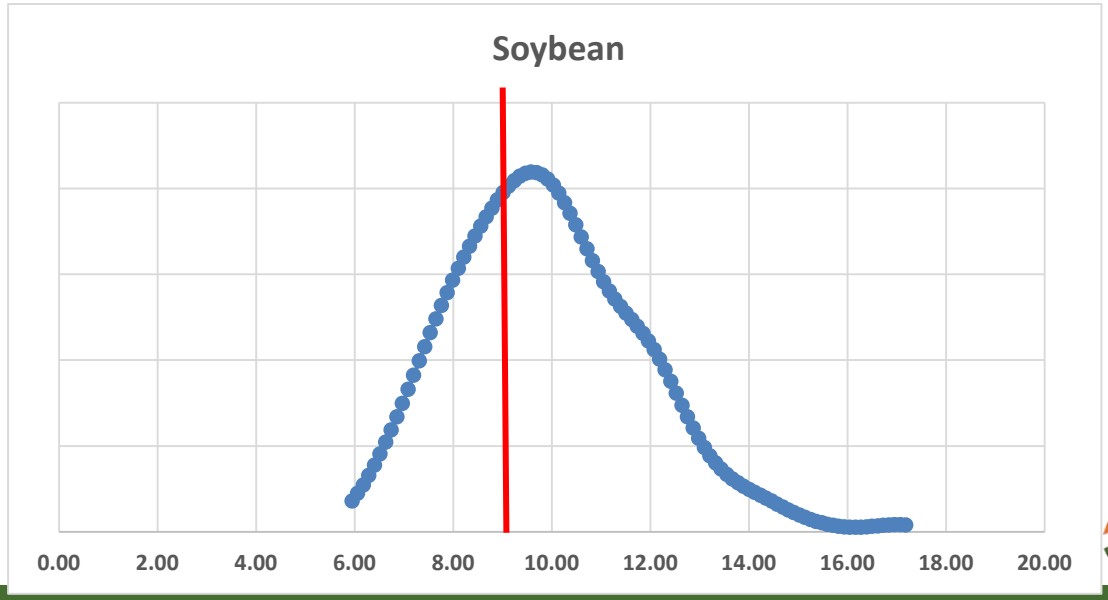




Risk is Key to Decision

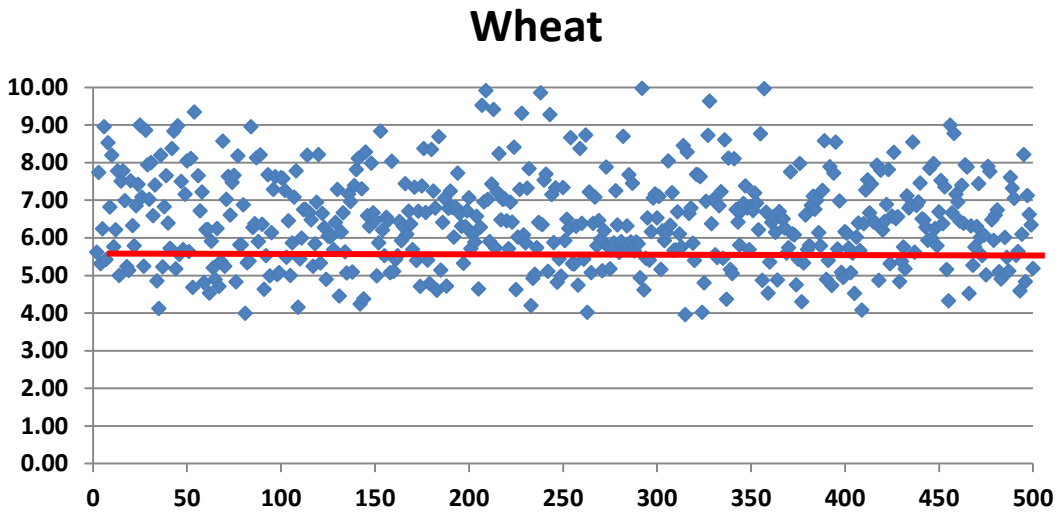
	Soybeans
Avg Price	9.92
Ref Price	8.4
Average	0.18
No. of Zeros	389
P(=zero)	0.78
P(payment)	0.22

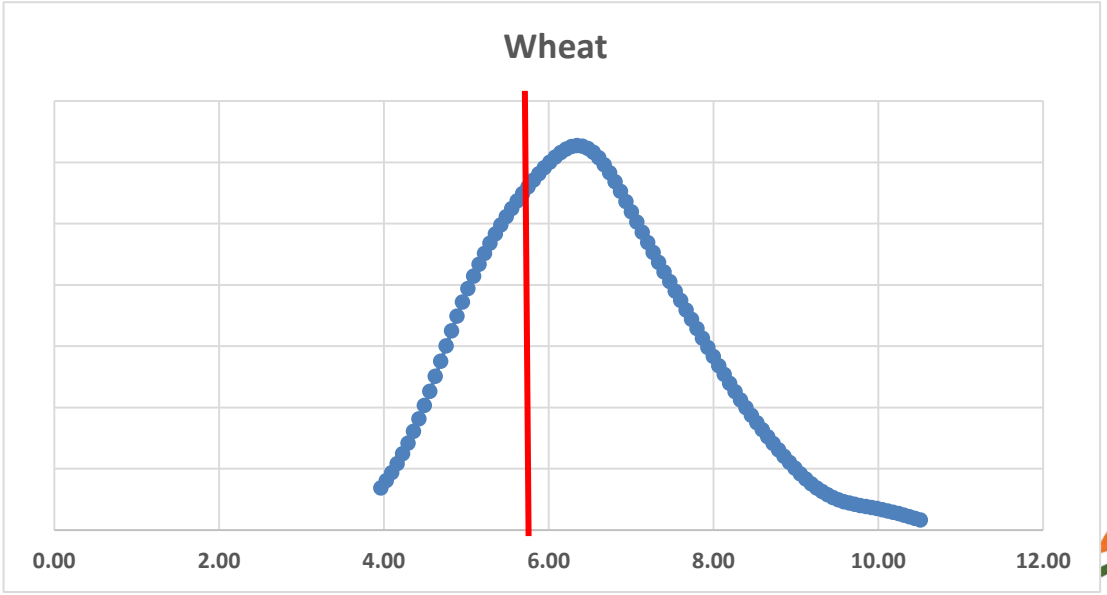




Risk is Key to Decision

	Wheat
MYA	6.50
Ref Price	5.50
Average	0.12
No. of Zeros	386
P(=zero)	0.77
P(payment)	0.23





Demo Decision Aid

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Visit out Website
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for Podcasts on the farm program and the Decision Aid