



# Ag Budget Calculator with Built-in Risk Exposure Module

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## Motivation:

- Traditionally, crop decisions come from examining expected profit (expected revenue – production costs)
- Increasing production costs has led to increases in financial risk exposure
- Failure to understand exposure can lead to farm ruin if rare financially devastating events are realized

☒ View Yield Exposure Values ☐ View Price Exposure Values

Open calculator with Expected Yield

Expected Yield:  
**145 bu/acre**

Represents the yield you expect to have at harvest. You entered this information when creating this enterprise budget.

Open calculator with NASS Average

NASS Average:  
**144.1 bu/acre**

Represents the National Agricultural Statistics Service (NASS) expected yield for the Crop Reporting District (CRD) you are located in

Open calculator with Regional Low

Regional Low:  
**53 bu/acre**

Represents the lowest CRD yield generated from looking at historical NASS yields.

The lowest yield in your CRD came in 2002.

[What happened in 2002?](#)

## Objective:

- To build a region- and crop-specific risk module into the new Ag Budget Calculator at the University of Nebraska
- Improve understanding of farm revenue risk exposure and how crop insurance influences risk exposure
- Improve risk management decision making to minimize farm ruin

This material is based upon work supported by USDA/NIFA under Award # 2018-70027-28586

## Risk Analysis Module Example



### Step 1: Determine crop insurance projected revenue ?

Enter the actual production history (APH) yield on record established with federal crop insurance.

APH yield / acre:

142 bushels

Your APH value can be found in your insurance schedule.

Insurance projected price / bu:

\$ 5.90

Average of the December futures price during the month of February of 2021.

Insurance projected revenue / acre:

\$ 837.80

Insurance projected price/bu multiplied by APH yield/acre.

### Step 2: Determine financially devastating event revenue ?

Enter low yield or harvest price values that represent a potential rare disaster event on your farm.

Disaster yield / acre:

70 bushels

Adjust this yield to represent a low yield you want to analyze.

Insurance harvest price / bu:

\$ 6.50

Adjust this price to represent an average of December corn futures during the month of October.

Insurance revenue to count / acre:

\$ 455.00

Insurance revenue to count/acre is the product of the disaster yield/acre multiplied by the harvest price /bushel.

Disaster yield / acre:

70 bu

To change this value, adjust the value in the 'Disaster yield / acre' field above.

Harvest futures / bu:

\$ 6.90

Expected futures price of the nearby grain contract when you expect to sell your crop.

Harvest basis / bu:

\$ -0.25

Expected basis value when you sell your crop. Example: if basis is 20 cents under, enter as -0.20

Farm revenue / acre:

\$ 465.50

Disaster Yield multiplied by Harvest Futures minus Harvest Basis.

### Step 3: Select a crop insurance coverage level ?

Assume 'Revenue Protection' insurance using enterprise units.

Insurance coverage level:

75%

Revenue Guarantee / ac:  
**\$692.25**

Indemnity / ac:  
**\$237.25**

Premium / ac:  
**\$10.49**

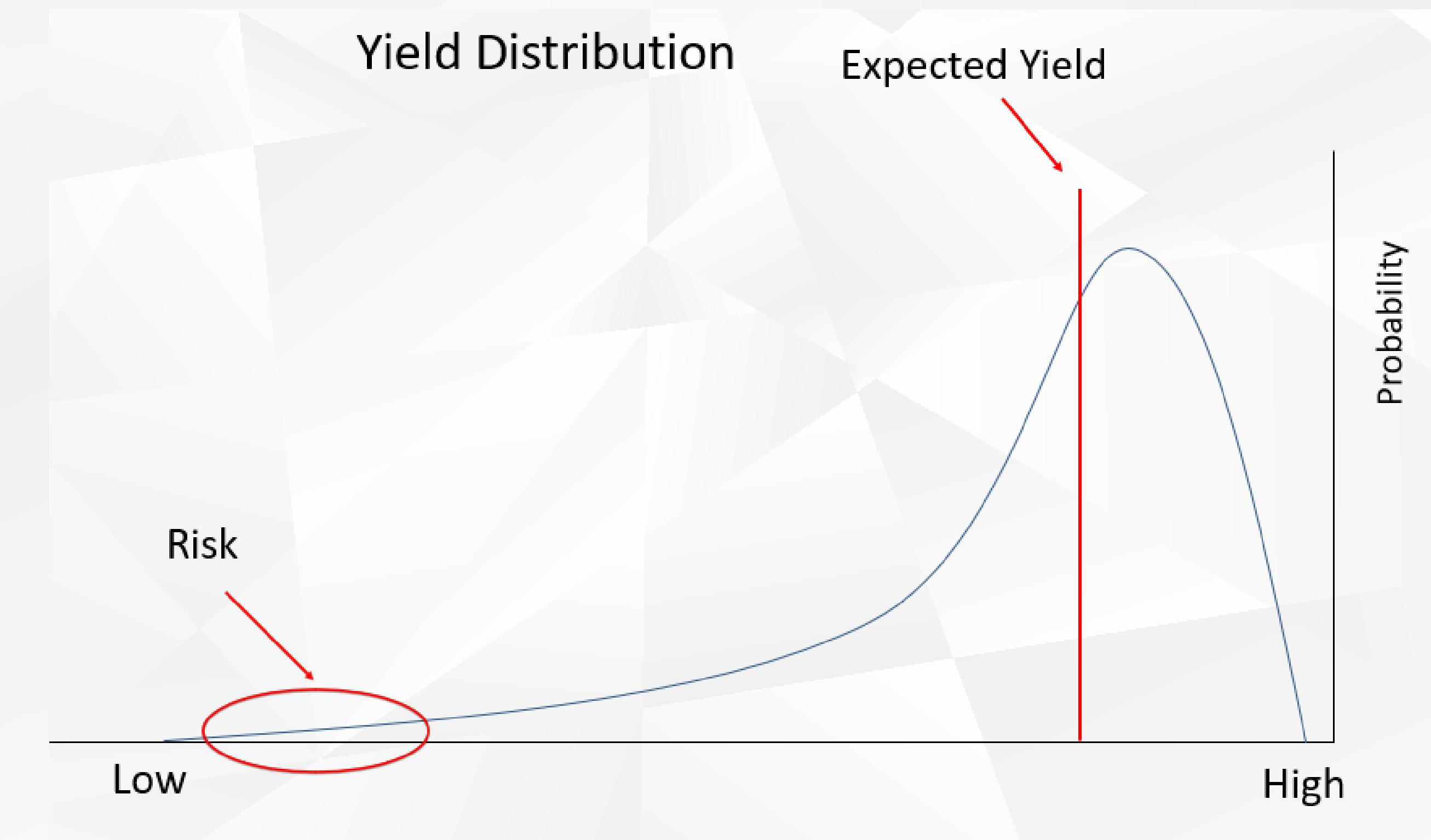
Total Revenue\* / ac:  
**\$692.26**

\* Total Revenue = Farm Revenue + Indemnity - Insurance Premium

### Step 4: Apply Disaster Event Values to Your Budget ?

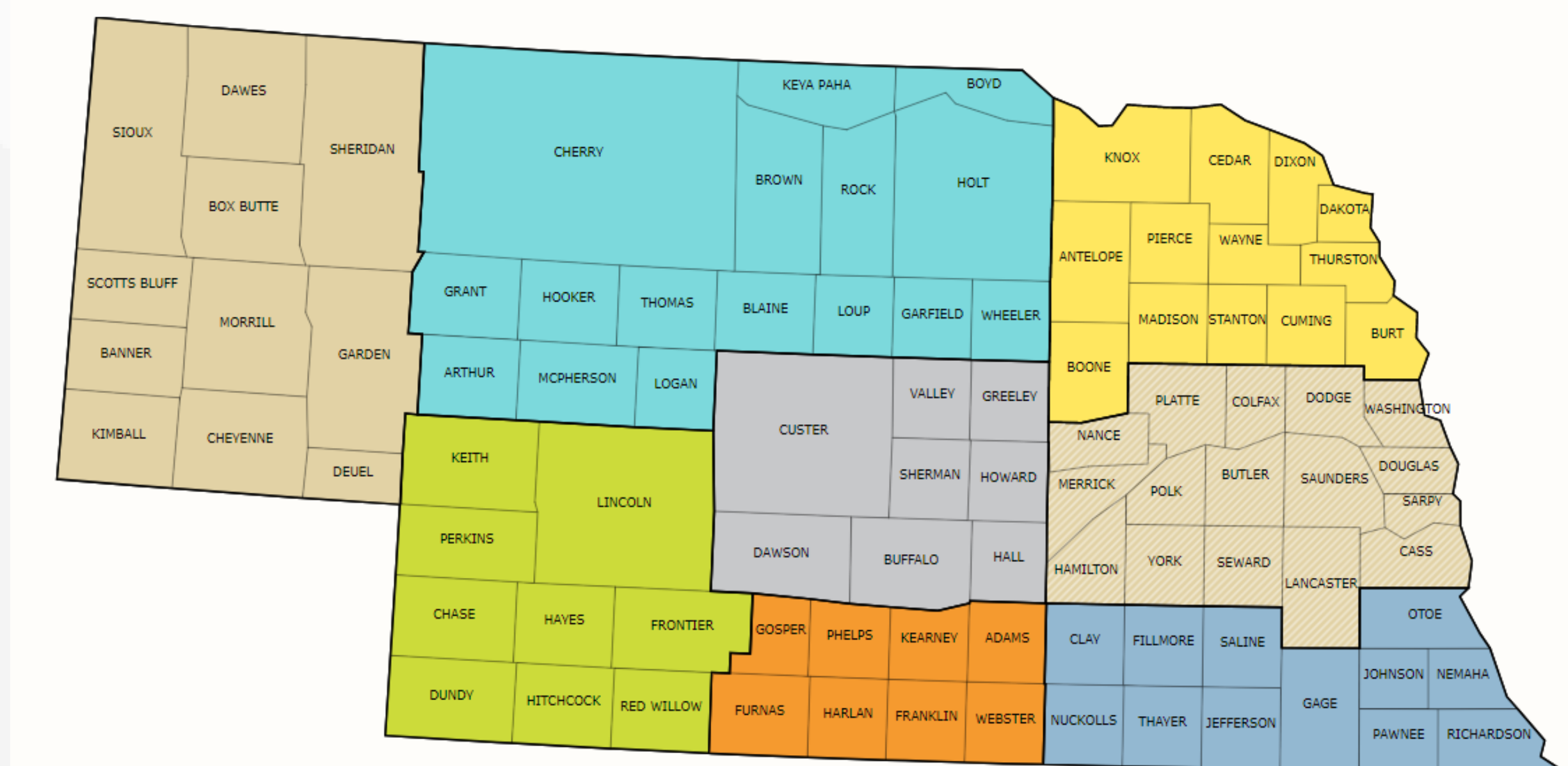
Click the button below to view the full budget report for this enterprise using values from this calculator.

[View Full Report With Disaster Values](#)



Click on the county where this enterprise is located to view and analyze risk exposure.

Click on your county below to begin



## Project & Educational Outcomes:

- ❖ To use enterprise budgeting in decision making
- ❖ 436 current ABC user accounts
- ❖ 640 user enterprise budgets created
- ❖ Quantify capital needed to survive a rare financially devastating event
- ❖ Identify the role of crop insurance in managing rare financially devastating events



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