AgBiz Logic User Experience

By Brianna Hagstrom

Mentors: Dr. Clark Seavert, Laurie Houston, Dr. Susan Capalbo

This work was supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award numbers 2011-68002-30191.
AgBiz Logic

• Program to aid users with
  • Risk management
  • Investment decisions
  • Planning for the future

AgBiz Logic™
Cutting-edge decision tools to help grow your business.
Modules of AgBiz Logic

- Budget Manager
- AgBizProfit™
- AgBizLease™
- AgBizEnvironment™
- AgBizClimate™
- AgBizFinance™
Goals of Internship

• Suggest means of improving user friendliness so users will feel
  • Confident
  • Empowered
  • Willing to continue use of AgBiz Logic
Methodology

• Obtained information from
  • Case studies
  • Focus group surveys
  • Feedback from my team
Objectives

- Emphasize certain steps & functions of *AgBiz Logic*

http://www.step-tempus.net/content/objectives
Objectives

• Emphasize certain steps & functions of *AgBiz Logic*

• Find effective means to relay instructions

http://www.step-tempus.net/content/objectives
Objectives

• Emphasize certain steps & functions of AgBiz Logic
• Find effective means to relay instructions
• Make user navigation seamless as possible

http://www.step-tempus.net/content/objectives
AgBizNavigator

• Guides user step by step through AgBiz Logic modules
  • Uses
    • Verbal directions
    • Flashing Arrows to guide users
    • Tool tips
    • Video tips

http://www.flaticon.com/free-icon/binoculars_69125
AgBizClimate™

• A module to aid users in planning for potential impacts that climate change
AgBizClimate™

• A module to aid users in planning for potential impacts that climate change
• Powerful tool

http://agbizdev.cosine.oregonstate.edu/#
AgBizClimate™

• A module to aid users in planning for potential impacts that climate change
• Powerful tool
• Overwhelming for first time users

http://agbizdev.cosine.oregonstate.edu/#
Select a state where the crops or livestock enterprises are located: Oregon and Umatilla County.

Select a weather station nearest your crops in this scenario: Umatilla County, Oregon.
AgBizClimate™

AgBizClimate

Select the 3 most weather variables from the list that you think will impact the yield or quality of the crop/livestock in this scenario.

- Seasonal mean temperature
- Number of days above freezing
- Number of nights below freezing
- Number of warm nights
- Number of consecutive extremely hot days
- Number of consecutive extremely cold days
- Accumulated growing degree days
- Accumulated chilling hours
- 24-hour temperature range (night v. day)
- Number of consecutive wet days
- Number of consecutive dry days
- Accumulated seasonal precipitation
- Snowpack
Based on your selected weather variables and weather station, the following are projected impacts from climate change.

**Average Precipitation per Year**

Based on this information, How do you think these climate changes will affect your WHEAT yields?: ▼ ▼ ▼ ▼ Change
AgBizNavigator

• Guides user step by step through the process of using AgBizClimate
  • Uses
    • Verbal directions
    • Arrows to guide users
    • Tool tips
    • Video tips

http://www.flaticon.com/free-icon/binoculars_69125
Please select your state, and then select the weather station closest to your farm or ranch. This allows AgBizClimate to retrieve data specific for your enterprise.
Please select your state, and then select the weather station closest to your farm or ranch. This allows AgBizClimate to retrieve data specific for your enterprise.
Here you may add three variables of interest for your farm to create your scenario.

If you are unsure which variable to select, please click the tool tip.

**AgBizClimate**

Select the 3 most weather variables from the list that you think will impact the yield or quality of the crop/livestock in this scenario.

- Seasonal mean temperature
- Number of days above freezing
- Number of nights below freezing
- Number of warm nights
- Number of consecutive extremely hot days
- Number of consecutive extremely cold days
- Accumulated growing degree days
- Accumulated chilling hours
- 24-hour temperature range (night v. day)
- Number of consecutive wet days
- Number of consecutive dry days
- Accumulated seasonal precipitation
- Snowpack
Here you may add three variables of interest for your farm to create your scenario.

If you are unsure which variable to select, please click the tool tip.

**AgBizClimate**

Select the 3 most weather variables from the list that you think will impact the yield or quality of the crop/livestock in this scenario.

- Seasonal mean temperature
- Number of days above freezing
- Number of nights below freezing
- Number of warm nights
- Number of consecutive extremely hot days
- Number of consecutive extremely cold days
- Accumulated growing degree days
- Accumulated chilling hours
- 24-hour temperature range (night v. day)
- Number of consecutive wet days
- Number of consecutive dry days
- Accumulated seasonal precipitation
- Snowpack
The three weather variables you choose are entirely up to you. It is recommended that you pick a variable that has been of concern in recent years. (I.e. if the number of cold snaps has been decreasing every year on your farm, you may add the variable “number of consecutive extremely cold days.”)

- Number of consecutive wet days
- Number of consecutive dry days
- Accumulated seasonal precipitation
- Snowpack
Based on this information, you may enter what percentage you think your yields will likely change due to climate change.

For help interpreting this graph, click the video tip.

Based on your selected weather variables and weather station, the following are projected impacts from climate change.

**AgBizClimate**

Based on this information, How do you think these climate changes will affect your WHEAT yields?: ▼ ▼ ▼ Change 🤔 🤔
Based on the selected weather variables and weather station, the following are projected impacts from climate change.

For help interpreting this graph, click the video tip.

Based on this information, How do you think these climate changes will affect your WHEAT yields?: __________% Change

---

**AgBizClimate**

Based on your selected weather variables and weather station, the following are projected impacts from climate change.
Demonstration Movie

• Here we have the number of growing degree days (GDDs) in Pendleton Oregon.
  We want to estimate how this data will affect our wheat yields.

• This line gives the average GDDs per month in recent years.

• These two lines give the average GDDs per month in 2010-2049.

• The yellow line predicts minimum climate change, as in a future where moderate efforts are made to reduce climate change.

The red line predicts maximum climate change – as in a future where no effort is made to reduce climate change.

• For either scenario, GDDs per month are expected to increase, which means more time for our wheat crops to mature, giving us a greater yield.
  However, more GDDs per month can also mean more pests in the future.

• After considering the benefits and consequences of this scenario, we feel that wheat yields will increase.

• We predict a 15% increase in yield.
  The estimate we made is a best guess; it gives us an idea of how to prepare for the future.
  When deciding your own percent yield change, please remember that it is just an accurate. It cannot and will not be perfect.
Data is always in season.

Welcome to AgBiz Logic!

AgBiz Logic is a suite of economic, financial, and environmental decision tools for businesses that grow, harvest, package, add value, and sell agricultural products.

Learn more