

<http://www.agbizlogic.com>

Data is always in Season

Thank you for visiting the *AgBiz Logic™* web site. This site is an economic, financial and environmental accounting decision tool to assist agribusinesses that grow, harvest, package, add-value, and sell agricultural products.

Sign Up Free

***AgBiz Logic (ABL)* is a suite of economic, financial, and environmental decision-support tools that enable producers to increase or assess profitability while assessing environmental trade-offs.**



OSU
Oregon State
UNIVERSITY

Acknowledgements:
This project is made possible by contributions from:

- Oregon State University
- Oregon State University – College of Agricultural Sciences
- Oregon State University – Department of Applied Economics
- USDA Forest Service Northwest Regional Climate Hub
- USDA National Institute of Food and Agriculture – Award #2014-51181-22384



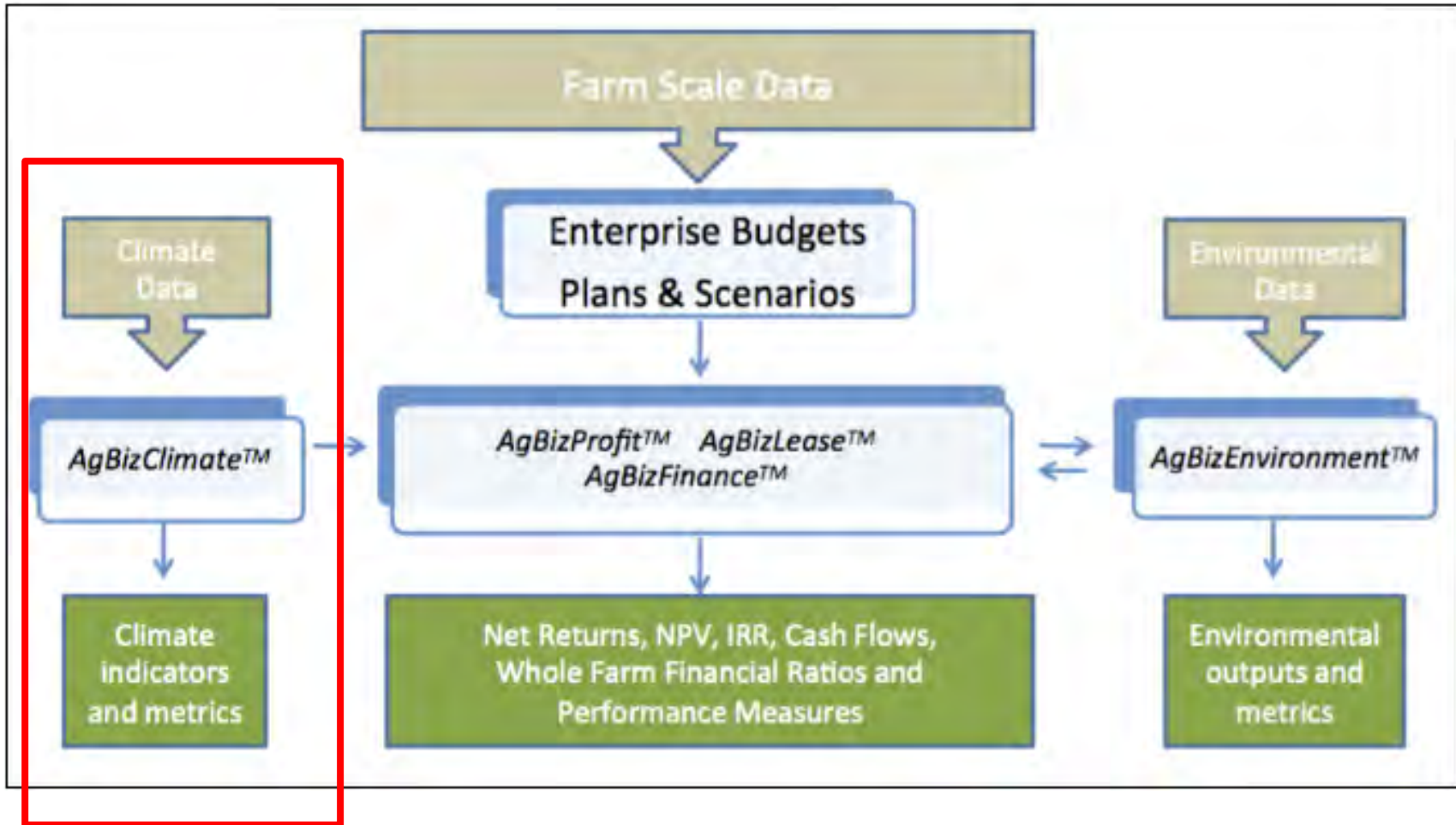
<http://www.facebook.com/AgBizLogic>



@AgBizLogic

AgBiz Logic™

AgBiz Logic Platform



Who Benefits from Using *AgBiz Logic*?

- Producers of
 - ✓ Crops
 - ✓ Livestock
 - ✓ Nursery
 - ✓ Forest
 - ✓ Seafood
 - ✓ Direct farm sales
 - ✓ Custom operations
 - ✓ Managing resources, such as land, equipment, etc.

Farm-level Data is “King” in *AgBiz Logic*

- Cost and return (enterprise) budgets are the foundation of *ABL*

85 percent of agricultural producers do not have adequate accounting data to complete an accurate, meaningful capital investment analysis!

Complexity in Record Keeping

Cropping System

Annual Crops Perennial w/ a Long Establishment Period
(Cereal Grains vs. Hazelnuts (13 years to full production))



Production Cycles to Initial Point of Sale

Single Phase Multiple Phases
(Cereal Grains vs. Greenhouse Nursery)



Mechanization of Field Operations

Combines, balers, etc. Manual Labor
(Cereal Grains vs. Wine Grapes >200 hours of labor/acre)



Farm-level Data is “King” in *AgBiz Logic*

- Cost and return (enterprise) budgets are the foundation of *ABL*
- Three methods of data collection within *ABL*:
 - ✓ Schedule F (Form 1040) Federal tax returns
 - ✓ Import data from accounting system via .csv/.exe files
 - ✓ University & industry enterprise budgets

Data Collection – Schedule F

Transfer your business data to AgBiz Logic

The first step toward utilizing AgBiz Logic decision tools is to populate AgBiz Logic with income and expense data generated from your business. Once this information is entered, you'll be able to allocate income and expenses to create enterprise budgets for custom scenarios.

We provide two methods for collecting your business data - Schedule F and accounting system or spreadsheets. Select one of these two to collect data now. Use the third option - University Budget(s) - for enterprises you do not have data. Note: Not all enterprises may be found in this list.

- Enter information from your Schedule F/Form 1040
- Import data from your accounting system or spreadsheet
- Select existing University Budget(s) (if you don't have your own data)

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Continue

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Data Collection – Schedule F



MayberryFarms

Summary of information entered from Schedule F (Form 1040)

Step 4 of 4

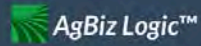
Review the data you entered and confirm **Net Profit or Loss** in AgBiz Logic matches your Schedule F form. If you need to m: Back button.

Gross Income:	\$ 4,224,000	.00
Total Expenses:	\$ 2,072,000	.00
Net Profit or Loss:	\$ 2,152,000	.00

Income

Line Category	Amount
Line 1a. Sales of livestock and other resale items:	\$350,000
Line 1b. Cost or other basis of livestock or other items:	\$50,000
Line 1c. Subtract line 1b from line 1a:	\$300,000
Line 2. Sales of livestock, produce, grains and other products you raised:	\$3,500,000
Line 3a. Cooperative distributions (1099-PATR):	\$3,000
Line 3b. Taxable amount:	\$1,500
Line 4a. Agricultural program payments:	\$60,000
Line 4b. Taxable amount:	\$60,000
Line 5a. Commodity Credit Corporation (CCC) loans reported under election:	\$0

Data Collection – Import from Accounting System



MayberryFarms

Transfer your business data to AgBiz Logic

The first step toward utilizing AgBiz Logic decision tools is to populate AgBiz Logic with income and expense data generated from your business. Once this information is entered, you'll be able to allocate income and expenses to create enterprise budgets for custom scenarios.

We provide two methods for collecting your business data - Schedule F and accounting system or spreadsheets. Select one of these two to collect data now. Use the third option - University Budget(s) - for enterprises you do not have data. Note: Not all enterprises may be found in this list.

- Enter information from your Schedule F/Form 1040
- Import data from your accounting system or spreadsheet
- Select existing University Budget(s) (if you don't have your own data)

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Data Collection – Import from Accounting System

Convert your accounting data to AgBiz Logic

Drag income & expense items highlighted in green on the left to the AgBiz Logic standardized categories on the right, as demonstrated [here](#).

Note: Negative values convert to positive, per standard accounting practices.

Mayberry Farms 2015 Expenses by Category	
Category	Total for Category
L-T asset replacement and section 179	\$250,000.00
Veterinary, breeding, ...	\$40,000.00
Utilities	\$40,000.00
Supplies	\$10,000.00
Storage and warehousing	\$25,000.00
Seeds and plants	\$60,000.00
Sales of livestock to be resold	\$350,000.00
Sales of grains and oil crops	\$3,500,000.00
Repairs and maintenance	\$30,000.00
Rent or lease: (land, animals, etc.)	-\$150,000.00
Property taxes	\$9,000.00
Pension and profit-sharing plans	\$15,000.00
Other income	\$12,500.00
Other expenses: Other miscellaneous	\$50,000.00
Other expenses: miscellaneous	\$10,000.00
Mach, equip, vehicle: rent or lease	\$52,000.00
Labor hired (less employment)	\$200,000.00
Interest on loans and mortgages	\$350,000.00
Insurance (other than health)	\$50,000.00
Gasoline, fuel and oil	\$100,000.00
Freight and trucking	\$28,000.00
Fertilizers and lime	\$75,000.00
Feed	\$13,000.00
Employee benefit programs	\$300,000.00
Custom hire (machine work) income	\$150,000.00
Custom hire (machine work)	\$20,000.00
Crop insurance proceeds	\$200,000.00
Cost of goods sold	\$50,000.00
Cooperative distributions	\$1,500.00
Conservation expenses	\$25,000.00
Chemicals	\$160,000.00

Select an AgBiz Logic Income/Expense Category:

Select your option

Income

- Sales of livestock, produce, grains and other products
- Cooperative distributions received
- Agricultural program payments
- Commodity Credit Corporation
- Crop insurance proceeds & federal crop disaster payments
- Specified custom hire (machine work) income
- Other income

Expenses

- Cost of goods sold
- Car and truck expenses
- Chemicals
- Conservation expenses
- Custom hire (machine work)
- L-T asset replacement and section 179 expense
- Employee benefit programs
- Feed
- Fertilizers and lime
- Freight and trucking
- Gasoline, fuel, and oil
- Insurance (other than health)
- Interest on loans and mortgages
- Labor hired (less employment credits)
- Pension and profit-sharing plans
- Machinery, equipment or vehicle rent or lease
- Land and animal rent or lease
- Repairs and maintenance
- Seeds and plants
- Storage and warehousing
- Supplies
- Property taxes
- Utilities
- Veterinary, breeding, and medicine
- Other expenses

Business Allocation



AgBiz Logic™

AgBizClimate

AgBizProfit

AgBizLease

AgBizFinance

AgBizEnvironment

Allocate your business information

To begin, select all enterprises that apply to your business:

Crop

Livestock

Nursery

Back

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Business Allocation

Income

Category	Total	Crop [?]	Livestock [?]	Whole Farm [?]	\$ or % [?]
Sales of livestock, produce, grains and other products	\$3,800,000	\$ 3,000,000	\$ 800,000	\$0	%
Cooperative distributions received	\$3,000	\$ 0	\$ 0	\$3,000	%
Agricultural program payments	\$60,000	\$ 60,000	\$ 0	\$0	%
Commodity Credit Corporation	\$0	\$ 0	\$ 0	\$0	%
Crop insurance proceeds and federal crop disaster payments	\$200,000	100 %	0 %	\$0	\$
Specified custom hire (machine work) income	\$150,000	\$ 0	\$ 0	\$150,000	%
Other income	\$12,500	\$ 0	\$ 0	\$12,500	%

Business Allocation

Summary

Here is a summary of your allocated business income and expenses.

	Income	Expenses		
Category		Crop	Livestock	Whole Farm
Sales of livestock, produce, grains and other products		\$20	\$20	\$20
Cooperative distributions received		\$15	\$15	\$15
Agricultural program payments		\$15	\$15	\$15
Crop insurance proceeds and federal crop disaster payments		\$15	\$15	\$15
Specified custom hire (machine work) income		\$10	\$10	\$10
Other income		\$10	\$10	\$10
Total		\$85	\$85	\$85

Summary

Here is a summary of your allocated business income and expenses.

	Income	Expenses		
Category		Crop	Livestock	Whole Farm
Cost of goods sold		\$0	\$50,000	\$0
Car and truck expenses		\$9,200	\$800	\$0
Chemicals		\$160,000	\$0	\$0
Conservation expenses		\$25,000	\$0	\$0
Custom hire (machine work)		\$20,000	\$0	\$0
L-T asset replacement and section 179 expense		\$187,500	\$62,500	\$0
Employee benefit programs		\$270,000	\$15,000	\$15,000
Feed		\$0	\$13,000	\$0
Fertilizers and lime		\$73,500	\$1,500	\$0
Freight and trucking		\$20,000	\$8,000	\$0
Gasoline, fuel and oil		\$75,000	\$15,000	\$10,000
Insurance (other than health)		\$40,000	\$0	\$10,000

Enterprise Budget for Winter Wheat, can be at the Field level!

Winter Wheat, Conservation Tillage, 12 to 18 inch Precipitation

Please fill out the following information about this budget

Budget Name:

Winter Wheat, Conservation Tillage, 12 to 18 inch Precipitation

State:

Oregon

County:

North Central

Budget Unit:

1

Acre

Help

Market:

Conventional

Length of Time for this Budget: 1

Year

Time Periods for this Budget: 1

1

Notes:

This enterprise budget estimates the typical costs and returns of producing winter wheat after fallow using conservation tillage production practices in a 12-18 inch precipitation zone. It should be used as a guide to estimate actual costs and returns and is not representative of any particular farm. Source: <http://arec.oregonstate.edu/oaeb/files/pdf/AEB0035.pdf> AEB 0035, (copy of Winter Wheat, Conservation Tillage, 12 to 18 inch Precipitation)

Income

Gross Return	Unit Sold by/as	Quantity Sold	Price per Unit Sold	Total Value
Winter Wheat	Bushel	65.00	\$5.50	\$357.50
Total Gross Returns				\$357.50

Add New

General Cash Costs

Name	Unit	Quantity	Price per Unit	Total Cost			
Chemicals	Acre	1.00	\$22.00	\$22.00	Edit	Add Variable Cost	
Conservation Expenses	Acre	1.00	\$0.30	\$0.30	Edit	Add Variable Cost	Add Fixed Cash Cost
Depreciation and Section 179 Expenses	Acre	1.00	\$50.03	\$50.03	Edit	Add Variable Cost	Add Fixed Cash Cost

Access Your Data from Anywhere!



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AgBiz Logic™

For the most part, agricultural producers are climate change skeptics. They have heard that with climate change temperatures will increase but no information on how climate change will affect their particular geographic region.

**Weather Variability
Impacts on a county basis**

Site specific to a location: State

County

Region Selection

Select the state (and county) where your enterprises are located in order to gather accurate climate data from weather stations.

Select

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon**
- Pennsylvania
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming

Region Selection

Select the state (and county) where your enterprises are located in order to gather accurate climate data from weather stations.

Only data from Umatilla County in Oregon is available in pre-release

State

Oregon

County

- Select
- Baker
 - Benton
 - Clackamas
 - Clatsop
 - Columbia
 - Coos
 - Crook
 - Curry
 - Deschutes
 - Douglas
 - Gilliam
 - Grant
 - Harney
 - Hood River
 - Jackson
 - Jefferson
 - Josephine
 - Klamath
 - Lake
 - Lane
 - Lincoln
 - Linn
 - Malheur
 - Marion
 - Morrow
 - Multnomah
 - Polk
 - Sherman
 - Tillamook
 - Umatilla**
 - Union
 - Wallowa
 - Wasco
 - Washington
 - Wheeler
 - Yamhill

Specific to user crops and livestock enterprises:

New AgBizClimate Scenario

To begin an AgBizClimate analysis, name this scenario, add notes, and select budgets from your existing database or university budgets. You are allowed to add up to 5 budgets per scenario.

Basic Information About Your New AgBizClimate Scenario

Name of Scenario:

Evaluate Impacts of Climate Change on Current Crops and Livestock Enterprises

Notes for this Scenario:

This scenario shows the current cropping and livestock enterprises for Mayberry Farms. Focus group results, when available, will be the driver to change yields/weights and quality of products sold. I will adjust inputs accordingly.

Select Budgets for this AgBizClimate Scenario

Budgets Selected

Title	Notes	
Beef Cattle - Weaning - owned grazing		Remove
Beef Cattle - Stocker/Yearling - owned grazing		Remove
Cereal Grains - Wheat - Soft White Winter		Remove
Cereal Grains - Barley - Spring		Remove

Users determine how climate change may impact crop or livestock yields/weights, quality of products, input costs, etc.

Weather Variable Selection

Variable Selection

Oil - Canola yields and/or product quality are the factors most likely to be affected by climate change. Select the 3 most important

Add New Variable:

- Select
- Number of Consecutive Dry Days
- Number of Consecutive Wet Days
- Number of Nights Below Freezing**
- Growing Season Length per Year
- Number of Warm Nights
- Number of Heat Wave Events
- Number of Very Heavy Precipitation Days
- Diurnal Temperature Range
- Accumulated Seasonal Precipitation
- Seasonal Minimum Temperature
- Seasonal Maximum Temperature
- Accumulated Chilling Hours
- Accumulated Growing Degree Days

Selected Variables

Back

Add

You determine how weather variability/climate change may impact your crop or livestock yields/weights, quality of products, input costs, etc.

Weather Variable Selection

Variable Selection

Oil - Canola yields and/or product quality are the factors most likely to be affected by climate change. Select the 3 most important weather variables you think will impact these factors.

Selected Variables

Number of Nights Below Freezing

Remove

Number of Consecutive Wet Days

Remove

Accumulated Growing Degree Days

Remove

Back

AgBizClimate provides climate change model projections for your county:

How will Number of Nights Below Freezing affect your enterprise?

Number of Nights Below Freezing in Umatilla, Oregon



Based on this information, how do YOU think these climate changes will affect your yields or quality?

20

% Change

Crop Models and Grower/Industry Focus Group Input for *AgBizClimate*

Researchers, producers and industry leaders provide input as to how climate change could impact crop and livestock yields and/or quality of products produced based on projected climate models of low and high emissions

	Winter Wheat	Winter Canola	Dry Peas	Camelina	Spring Barley
Crop Modeling	+ 20.3%	+ 8.3%	+10.0%	+ 3.3%	+ 4.2%
Grower Focus Groups	+15.0%	N/A	N/A	N/A	+10.0%
<i>Weather Var. 1: Nights below Freezing</i>	+20.0%	+10.0%	+15.0%	+10.0%	+10.0%
<i>Weather Var. 2: Accumulated GDD</i>	+15.0%	-10.0%	-15.0%	-10.0%	+10.0%
<i>Weather Var. 3: Yearly Precipitation</i>	+25.0%	+15.0%	+10.0%	+15.0%	+10.0%
Your Changes	+20.3%	-10.0%	-5.0%	-10.0%	+10.0%

Winter Wheat, Conservation Tillage, 12 to 18 inch Precipitation (AFTER)

Please fill out the following information about this budget

Budget Name:

Winter Wheat, Conservation Tillage, 12 to 18 inch Precipitation (AFTER)

State:

Oregon

County:

North Central

Budget Unit:

1

Acre

Help

Market:

Conventional

Length of Time for this Budget: 1

Time Periods for this Budget: 1

Year

1

Notes:

This enterprise budget estimates the typical costs and returns of producing winter wheat after fallow using conservation tillage production practices in a 12-18 inch precipitation zone. It is intended to be used as a guide to estimate actual costs and returns and is not representative of any particular farm. Source: <http://arec.oregonstate.edu/oaeb/files/pdf/AEB0035.pdf> AEB 0035, (copy of Winter Wheat, Conservation Tillage, 12-18 inch Precipitation)

Yields and Gross Returns will change based on grower input

Income

Gross Return	Unit Sold by/as	Quantity Sold	Price per Unit Sold	Total Value
Winter Wheat	Bushel	78.20	\$5.50	\$430.10
Total Gross Returns				\$430.10

Add New

General Cash Costs

Name	Unit	Quantity	Price per Unit	Total Cost
Chemicals	Acre	1.00		\$22.00
Conservation Expenses	Acre	1.00	\$0.30	
Depreciation and Section 179 Expenses	Acre	1.00	\$50.03	\$50.03

Growers can then modify inputs that change with yields!

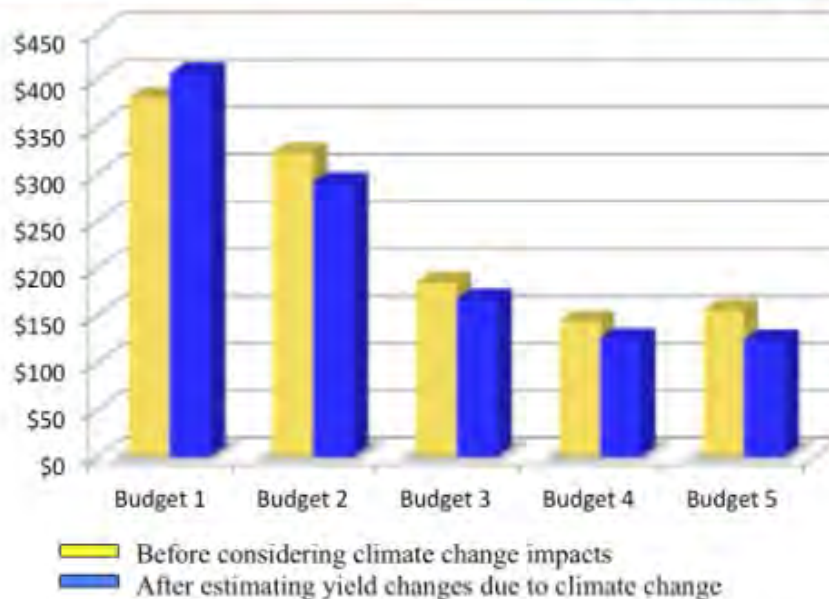
AgBizClimate Output

Notes: Observing the before and after effects of climate change on per acre net returns of growing current cropping system of winter wheat and fallow and annual cropping system in the future.

View results as a: Table Graph

Net Returns

- Budget 1: Winter Wheat
- Budget 2: Winter Canola
- Budget 3: Dry Peas
- Budget 4: Camelina
- Budget 5: Spring Barley

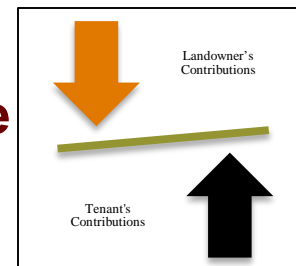


So, How Does an *AgBizClimate* Analysis Integrate with the Other *ABL* Modules?

AgBizProfit: Can I make money implementing this adaptation strategy?



AgBizLease: How might my lease agreement change with this strategy?



AgBizFinance: How will my business' liquidity and solvency change?



AgBizEnvironment: What are the economic and environmental tradeoffs if I adopt this strategy?



Future Additions to *AgBizClimate*

<https://climatetoolbox.org>

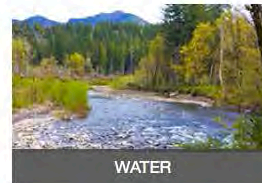
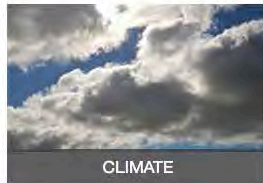
Northwest Climate Toolbox TOOLS - DATA - CONTACT

The Northwest Climate Toolbox

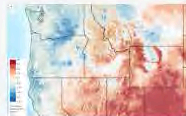
A collection of web tools for visualizing past and projected climate and hydrology of the Pacific Northwest, USA.

Applications

These tools are to help with decision making in fire, water management, agriculture and climate monitoring.



Tools



Climate Mapper
Explore current and future climate information across multiple sectors

Launch Tool



Cold Hardiness Zones
View current and projected cold hardiness and crop suitability zones

Launch Tool



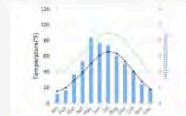
Seasonal Forecast Maps
Explore seasonal climate forecasts over the Northwest USA

Launch Tool



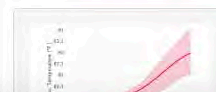
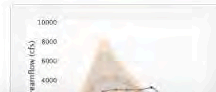
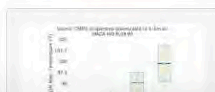
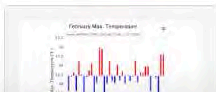
100 Year Projections
Agroclimatic projections for the 21st century for selected location.

Launch Tool



Climate Normals
Visualize monthly average climate for a selected location.

Launch Tool




Future Additions to *AgBizClimate*

Set Location

Choose a location within the contiguous US with one of the options:

- **GeoLocation:** Enter name of your location ?

- **Click on Map/Drag Marker:** Click a location on the map or drag the marker  to your location.

- **Enter Coordinates:** Enter the coordinates of a point location within the contiguous US: ?

North,

West

SET LOCATION



Future Additions to AgBizClimate

Northwest Climate Toolbox

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DATA ▾

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Seasonal Forecasts

Location: 44.9451° N, 122.8209° W

[About Tool](#)

[About Data](#)

[About Variables](#)

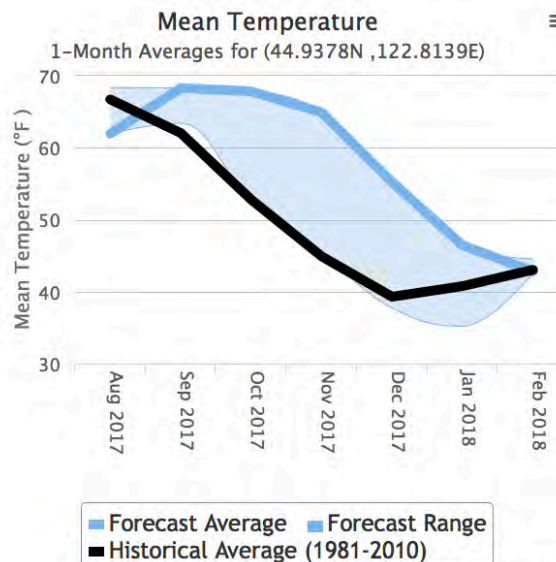
[Take a Tour](#)

Variable:

1 Month Average

Mean Temperature

Show Model Forecasts



NW Climate Toolbox, Data: USdsho RCSI-NMME-METDATA



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Future Additions to AgBizClimate

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Seasonal Forecasts

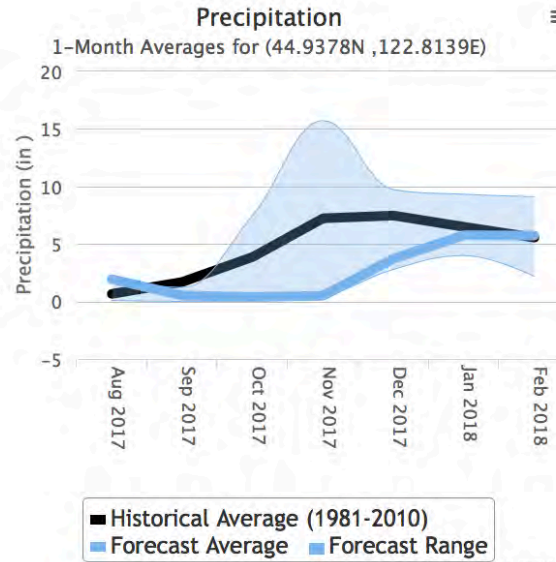
About Tool About Data About Variables Take a Tour

Location: 44.9451° N, 122.8209° W

Variable:

1 Month Average Precipitation

Show Model Forecasts



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Future Additions to AgBizClimate

Northwest Climate Toolbox

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Seasonal Forecasts

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[About Data](#)

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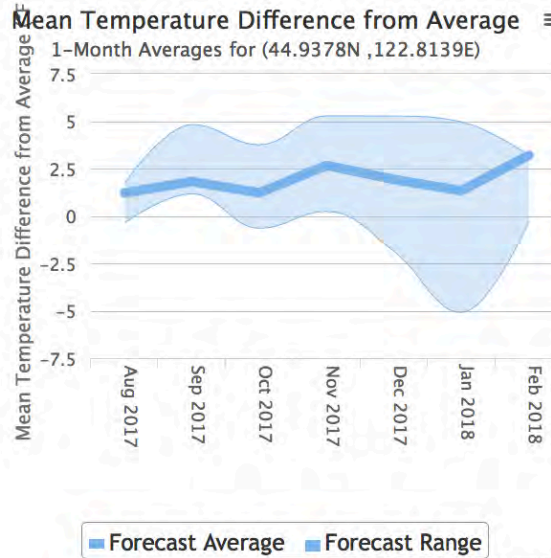
Location: 44.9451° N, 122.8209° W

Variable:

1 Month Average

Mean Temperature Difference from Average

Show Model Forecasts



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Future Additions to AgBizClimate

Northwest Climate Toolbox

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Seasonal Forecasts

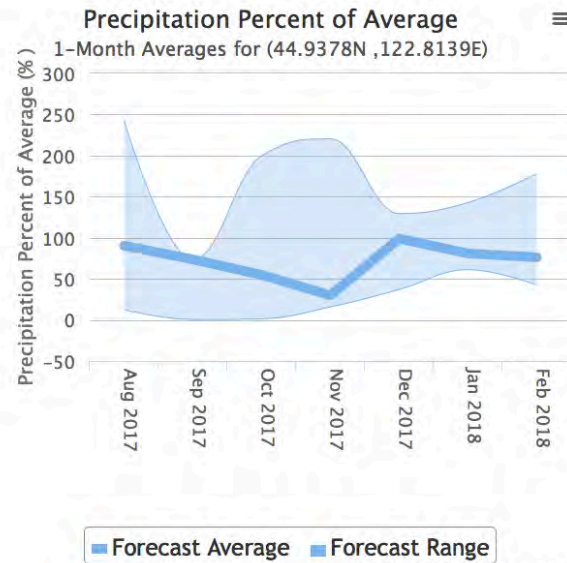
[About Tool](#) [About Data](#) [About Variables](#) [Take a Tour](#)

Location: 44.9451° N, 122.8209° W

Variable:

1 Month Average

Show Model Forecasts



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<https://www.agbizlogic.com>

Invite you to register



AgBiz Logic™ Alpha 1.0 (pre-release) [Contact Us](#) [Log in](#) [Sign up](#) [Resources](#)

Alpha 1.0

This is a pre-release version of AgBiz Logic. Many features are still in development, and any data entered in this pre-release version may be lost when the full release is made available.

Welcome to AgBiz Logic. To begin, please create an account.

This information is confidential and securely stored at Oregon State University.

Username*

Username cannot exceed 30 characters and may include letters, numbers and the following special characters: @, +, _

First Name*

Last Name*

Email Address*

Password*

Password must be a minimum of eight characters and must include at least one letter and one number or special character.

Password Confirmation*

Enter the same password as above.

[Leave page](#) [Continue](#)

Questions or Comments?