

United States Department of Agriculture Northwest Climate Hub

Gabrielle E. Roesch-McNally Fellow

Bea Van Horne, USFS, Director Mike Strobel, NRCS, Co-Lead Dave Huggins, ARS, Co-Lead Holly Prendeville, Coordinator

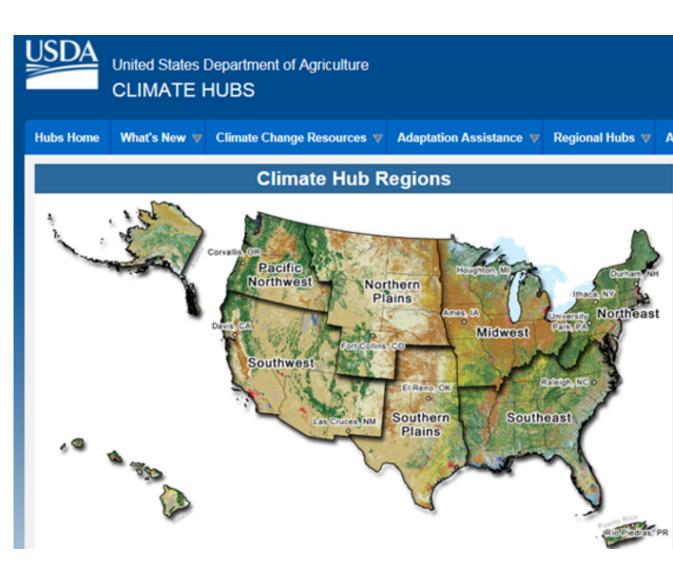




USDA Climate Hubs

Regional network assisting land managers and extension agents with managing for risks in a changing climate:

-drought -floods -wild fires -changing growing seasons...









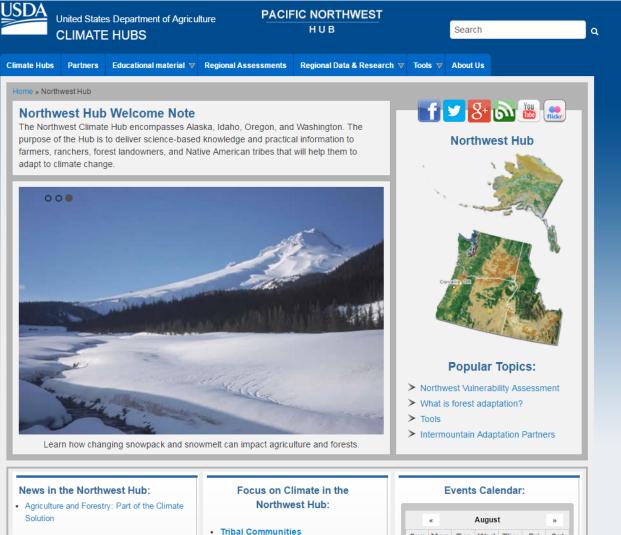
USDA Climate Hubs

Focus on Managed Lands: *Farms, Forests, Rangelands*

-Technical & Program Support -Assessments and Forecasts -Outreach and Education



www.climatehubs.oce.usda.gov/northwest/



- · Register now for Climate Academy Course offered by DOI
- Climate Learning Network Hosts First Webinar Series

心 more...

Forestlands

Alaska

Grazing Lands

n Climate in the hwest Hub:	١.			
			«	
nities		Sun	M	10
				1
				_

Events calendar.								
	« August					»		
Sun	Mon	Tue	Wed	Thu	Fri	Sat		
	1	2	3	<u>4</u>	5	6		
7	8	9	10	<u>11</u>	<u>12</u>	<u>13</u>		
<u>14</u>	<u>15</u>	<u>16</u>	17	<u>18</u>	19	20		
21	22	23	24	25	26	27		
28	29	30	31					

Educational material Blogs Newsletters Webinars Courses

Regional assessments

Regional data & research -data visualization

Tools

News and Events



Serves Alaska, Idaho, Oregon and Washington -Forests, rangelands, agriculture -Tribal nations

Main office in Corvallis, OR Bea Van Horne - Director Gabrielle Roesch-McNally – Fellow Holly Prendeville-Coordinator

Alaska

Dave D'Amore-Hub representative, USFS Pacific NW Research Station- Juneau

Regional Climate Change Impacts to Agriculture

- Diversified agriculture in the PNW, heterogeneous impacts across spatial scales and cropping systems
- Climate Changes: increases in maximum dry days; more precipitation falling as rain and snow drought; more extremes (drought to flooding); decreased chilling hours (esp. for tree fruit); increased heat stress and temperature (livestock and plant effects)
- Secondary Impacts: Pests/Disease dynamics; adaptive management (maladaptation vs. purposeful adaptation)
- Adaptive Management: changes to irrigation, dry farming in Western Washington and Oregon; shifting cropping systems; new genetics and varietals
- Climate impacts both yield/productivity as well as product quality



Regional Assessment:

http://www.climatehubs.oce.usda.gov/sites/d efault/files/Northwest%20Vulnerability%20Ass essment%20Final.pdf

Agriculture in a Changing Climate

- Regional meeting hosted in Kennewick, WA (March 2017)
- White paper to be out in November (look for presentation at **Northwest Climate Conference**)
 - Workshop participants articulated three specific needs to better support climate change adaptation and mitigation efforts in the region:
 - Strengthen networks of collaboration among institutions, industries and individuals in the Northwest.
 - Understand motivations that inform climate change adaptation and mitigation decisions.
 - Design tools and resources to inform "on the ground" decisions. Whether these are monitoring devices, maps or apps, scientific knowledge shared through customized tools at the right scale for decision-makers will have the greatest chance of achieving impact.



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.

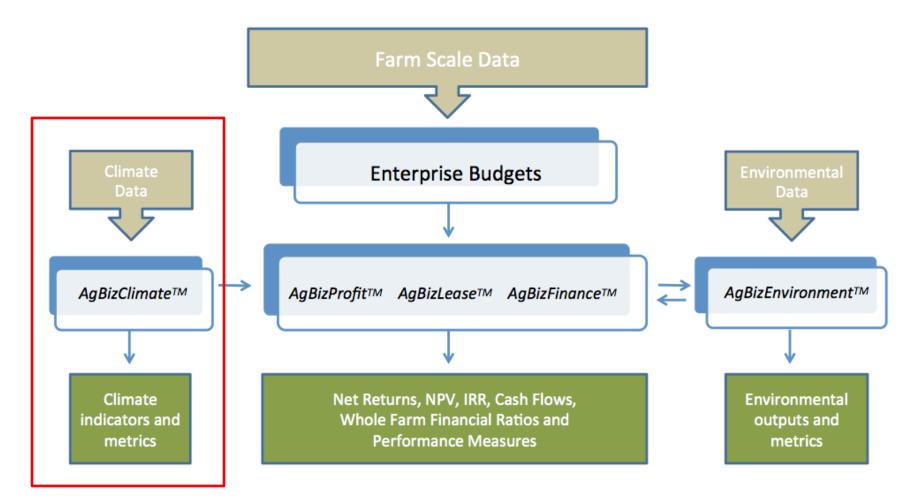




A DETARTURE (A DESE



The AgBiz Logic[™] Platform





AgBizClimate[™]

Critical climate variables that influence management practices and crop/livestock performance:

- 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
- Number of consecutive wet days
- Number of consecutive dry days
- Accumulated seasonal precipitation
- Snowpack
- Other: ______(some other variables to probe for: extreme events: rain, wind, hail; livestock heat/stress; variability between extremes; thermal heat index, insect impacts)

Getting more info

- Focus groups with producers (AgBizLogic effort)
- Conducting survey with Farm Service Agency and NRCS field agents (examine climate and weather related needs)
- Needs assessment for local producers (specialty crop focus)

Contact Information

http://www.climatehubs.oce.usda.gov/northwest

Holly Prendeville Coordinator 541-750-7300 hollyrprendeville@fs.fed.us

Bea Van Horne Director 541-750-7357 <u>bvhorne@fs.fed.us</u>

Gabrielle Roesch-McNally Fellow 541-750-7091 groeschmcnaly@fs.fed.us

Dave D'Amore Representative 907-586-7955 <u>ddamore@fs.fed.us</u>

