

# **BIOAg Final Report**

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## **Title:**

Cascadia Grains Conference

## **Principal Investigator(s) and Cooperator(s):**

Dr. Lucas Patzek (PI), Dr. Brad Gaolach (Co-PI), and the following cooperators:  
Dr. Stephen Jones, Dr. Andrew Corbin, Chris Benedict, and Martha Aitken

## **Abstract:**

Washington State University (WSU), in partnership with a number of organizations and businesses, convened a one-day conference in Tacoma, Washington on January 12, 2013 to support rebuilding a grain economy west of the Cascade Mountains in Washington, Oregon, and British Columbia through three value-added enterprises: brewing and distilling, animal feed, as well as baking and other food uses. Farmers, processors and end-users, as well as investors, brokers and local government officials came together to learn about the latest science, techniques, and developments, as well as to create a space in which new business, policy and research relationships could form and existing ones could be strengthened. It was organized to augment the efforts of the international Kneading Conference West held annually at WSU Mount Vernon NWREC. The Cascadia Grains Conference attracted 156 participants from across the Cascadia region and beyond, including from as far away as New York, Kansas, and California. The full conference program and additional information can be found here: [www.cascadiagrains.com](http://www.cascadiagrains.com).

## **Project Description:**

Small grains - wheat, barley, oats, and rye - have been in cultivation in Western Washington and Oregon since the fur-trade era of the mid-1800s. Today, these crops and pseudo-grains (e.g. quinoa and buckwheat) are grown in rotation with high-value fruit and vegetable, or in place of hay. They have important agroecological functions on the farm, including reducing nutrient leaching, increasing soil organic matter, as well as breaking disease and pest cycles. Consumer demand for local grains, whole grain products, and alternative and gluten-free grains has increased tremendously in the past few years. Farmers and processors have been responding to this demand with expanded and diversified plantings, differentiated products, and efforts to develop new supply-chains. Still, developing markets outside of the commodity chain is not easy as the Pacific Northwest grain economy is focused on a small set of market classes (e.g. soft white wheat) for export to international and national markets. A primary challenge is the lack of critical handling and processing infrastructure, which has been moved, dismantled, or repurposed for non- agricultural

uses. Also, the generational knowledge of growing grain has been lost in many corners of our region, and farmer outreach on improved production methods has been focused in the dominant grain growing areas east of the Cascade Mountains. The Cascadia Grains Conference, which will be held in January of each year in Tacoma, WA, will elevate the status of grains in local food efforts by sharing the latest science, techniques, and developments to an audience of about 200 farmers, agri-business operators, researchers, and educators. The one-day conference will include individual workshops covering production strategies, end-use quality concerns, business and market planning, financing options, and liability and insurance. Also included will be a resource fair and networking session.

## **Outputs:**

### **Work Completed:**

The conference program was developed by a WSU planning team with ample input from steering committee. The conference came together in partnership with Pierce and Thurston County Washington State University Extensions offices. Lucas Patzek of Thurston County Extension led the Planning Team, with staff support from Maggie Anderson and Rosanne Burke. Brad Gaolach of Pierce County Extension and Martha Aitken from King/Pierce County Extension also worked closely in the planning process. The conference program, format and logistics were planned with the advice and assistance of a 12-member volunteer Steering Committee made up of WSU Extension staff and business and industry leaders in the grain's supply chain.

The following fifteen workshops were taught by 30 instructors during one of three concurrent tracks having two morning, and three afternoon sessions:

1. Business Entity Types and Business Models. Speakers: John Rodenberg, Small Business Development Center-Tacoma; Matt Lincecum, Fremont Brewing Co. Number of attendees: 26.
2. Craft Distilling: The Washington State Story. Speakers: David Bauermeister, Northwest Agriculture Business Center; Ryan Hembree, Skip Rock Distillers. Number of attendees: 55.
3. Expanding Grain Networks and Infrastructure. Speakers: George Pearce, Wilco Agronomy; Wayne Carpenter, Skagit Valley Malting & Brewing Co.; Dennis Gilliam, Bob's Red Mill Natural Foods. Number of attendees: 60.
4. Feeding Grain to Livestock. Speakers: Gary Fredricks, Washington State University Cowlitz County Extension; Andrew Dykstra, Dykstra Farms. Number of attendees: 25.
5. Financing Food and Farm Based Businesses. Speaker: Tim Crosby, Slow Money Northwest. Number of attendees: 40.
6. Flour Quality in the Lab and in the Bakery . Speakers: Dr. Andrew Ross, Oregon State University; George DePasquale, Essential Baking Company. Number of attendees: 45.
7. Gluten-Free Baking: Answering Market Demands. Speakers: Dennis Gilliam, Bob's Red Mill; Jim Kropf, Julie's Gluten-Free Bakery and Washington State University Extension. Number of attendees: 35.
8. Going Organic: Growing, Handling/Processing, and Marketing. Speakers: Holly Born, Washington State Department of Agriculture; Eric Fritch, Chinook Farms. Number of attendees: 45.
9. Grains as Poultry Feed. Speakers: Dr. James Hermes, Oregon State University; Andy Wilcox, Wilcox Farms. Number of attendees: 30.

10. Growing Small Grains West of the Cascades. Speakers: Dr. Andrew Corbin, Washington State University Snohomish County Extension; Sam McCullough, Nash's Organic Produce. Number of attendees: 53.
11. Harvest Home: Heritage Grains of Western Washington and Pacific Northwest. Speaker: Dr. Richard Scheuerman, Seattle Pacific University. Number of attendees: 75.
12. Kicking the Commodity Habit: On Being Grown Out of Place. Speaker: Dr. Stephen Jones, Washington State University Mount Vernon NWREC. Number of attendees: 57.
13. Research Update: Grains in Western Washington and Oregon. Speakers: Dr. Karen Hills, King Conservation District; Brook Brouwer, Washington State University; Brigid Meints, Oregon State University. Number of attendees: 50.
14. Roles for Co-ops in the Small Grains Economy . Speakers: Eric Bowman, Northwest Cooperative Development Center; Stuart Boyle & Michelle Gilles, Kitsap Poultry Growers Cooperative. Number of attendees: 40.
15. The Science and Art of Malting and Brewing. Speakers: Scott Fisk, Oregon State University; Mike Doehnel, Artisan Maltster. Number of attendees: 60.

In addition to the workshops, the conference included a Resource Fair, which was open to educational institutions, government agencies, and non-profit organizations having programs appealing to farmers or food businesses. Each entity was provided with a table in the common area of the facility, and many staffed their resource table to answer questions or to lead attendees through educational activities. Those entities represented included: WSU Mount Vernon Breeding Program, OSU Barley Breeding Program, WSU Center for Sustaining Agriculture and Natural Resources, USDA Risk Management Agency, USDA-ARS National Plant Germplasm System, Washington State Liquor Control Board, Cascade Harvest Coalition, Enterprise for Equity, Northwest Agriculture Business Center, and the Pierce Conservation District.

Among the 156 conference participants, Washington State was best represented, with 59% coming primarily from seven Puget Sound counties, while 22% of participants came from Oregon, and 9% from British Columbia. A majority of participants were farmers (42%), while other members of the grain-shed (e.g. processors, brokers, distributors, retailers, etc.) were a close second (39% of participants), and researchers and educators were also well-represented (22% of participants). Farmer participants included both those interested in growing primarily grains, and those interested in growing grains in rotation with other crops, and 78% of surveyed grain growers said their interest was feeding locally-produced grains. The processors represented a range of industries: 40% were bakers, 30% millers, 20% brewers, 10% distillers, and 10% maltsters.

#### **Publications, Handouts, Other Text & Web Products:**

A preliminary version (beta stage) of the online Cascadia Grains Asset Map was developed as a continuously evolving visualization of grain-related assets and resources across western WA, OR, and BC. This tool will allow members of the grain-shed (e.g. farmers, processors, educators, etc.) to identify themselves on a digital map to facilitate the formation of new supply-chain relationships, and to expose barriers and gaps. This interactive tool is embedded into our website ([www.cascadiagrains.com](http://www.cascadiagrains.com)). Our website (together with its associated Facebook, Twitter, and Flickr accounts) is maintained as a central repository of grain-related information and news for western WA, OR and BC. This includes presentations from the conference, which are freely downloadable.

#### **Outreach & Education Activities:**

The work completed was an educational activity, so see the above-section.

## **Impacts:**

### **Short-Term:**

Short-term impacts include increased knowledge concerning grain production and end-uses, including variety selection, nutrient management, and growing on-farm feed. Other impacts include increased knowledge of baking, malting/distilling, and feed quality, as well as baking gluten-free, organic certification, business legal structures, and financing options. Participants were asked to rank the workshops they attended on a scale from 1 (Not Informative) to 5 (Very Informative) on a paper survey, and averaged over all 15 workshops, the median score was 4.1. The three most highly-ranked workshops were: Kicking the Commodity Habit (4.7), Business Entity Types and Models (4.5), and Grains as Poultry Feed (4.3). The average score for a workshop did not fall below 3.5, and only five of the 15 workshops were rated below 4. Asked to describe three things that they plan to do within the next 6 months with the information gained from the conference, the top three responses were: (1) to grow grains (either expand plantings or plant for the first time) (26% of participants), (2) continue strengthening the supply-chain network by maintaining relationships and forming new ones (25%), and (3) learn more about grain production, processing and business planning (21%). A large majority of attendees (83%) would participate in a second conference on this topic. Those who would not consider attending again mentioned that the conference was “too far away” or they “needed something more basic.”

### **Intermediate-Term:**

Intermediate-term impacts include new, regional business relationships between growers and processors/end-users, specifically: improved grower-to-miller/baker, grower-to-maltster/brewer, grower-to-distiller, and grain grower-to-animal producer connections. Additionally, other impacts include an increased investment in infrastructure needs, including grain storage, dryers, mills, and malting facilities. Follow-up conversations (in-person and phone-calls) with key conference participants demonstrated that the conference had some influence on the formation of new business-to-business relationships relating to grain. For instance, Chad Robbins and Ezra Cox (both conference participants) established the Cowlitz River Distillery to malt and distill locally-produced grains in Lewis County, and they credit the conference for providing some of the inspiration to form this new business venture. Similarly, Wilcox Farms was able to connect with several southwest Washington grain farmers who will be growing feed grains, particularly organically-certified feed grains, for their poultry operation. Lastly, a feed producer-buyer cooperative is beginning to form in the South Puget Sound as a direct result of the conference. More time will have to pass to be able to honestly assess what intermediate impacts the conference had, but the initial signs are quite positive.

### **Long-Term:**

In the long-term, the impact of this annual conference will be a transition to a localized grain economy where locally-grown wheat, barley, oats, rye, triticale, and other crops feature prominently in local food, feed, and malt systems. Additionally, alternative (or pseudo) cereal crops will feature prominently in local agriculture and processing, including quinoa, amaranth, and buckwheat. It is too early to assess these long-term impacts.

### **Additional funding applied for / secured:**

\$8,260.00 – registration fees  
\$6,250.00 – sponsorship support and program ad sales  
\$5,000.00 – Pierce County MOA support  
\$19,510 – TOTAL additional funding secured

### **Graduate students funded:**

Cost of travel, meals and accommodations covered for the following graduate students to present at the conference: Brook Brouwer and Karen Hills (WSU Crop Science students with Dr. Stephen Jones), and Brigid Meints (OSU Crop Science student with Dr. Patrick Hayes).

### **Recommendations for future research:**

The dominant Washington grain market is centered on the international export of soft white wheat, and studies have focused primarily on understanding this globalized, industrialized grain economy. In recent years, grain economy (re)localization efforts have emerged in the Puget Sound region, but there is a lack of information on how the local, short supply-chain relationships are forming, and what factors are limiting grain production, processing, distribution, and marketing in this region. In order to assist grain growers, processors/end-users, policymakers, and others involved in the (re)localizing grain economy of the Puget Sound, it is essential to study the challenges and opportunities associated with it.