

## Value-Added Processing Facility Tour of Skagit and Whatcom Counties

September 24<sup>th</sup> and 25<sup>th</sup>, 2018

*\*Disclaimer: the following are draft notes. They are not intended as fully formed positions on topics.*



*Figure 1. Kevin Morse of Cairnspring Mill explains the craft milling process. The building was built to suit, and some financing was provided by the Port of Skagit.*



*Figure 2. Tami Sakuma, of From the Farm, explains the process of renting and using the shared use kitchen. Equipment was purchased by the Port of Skagit.*

### Trip description

A group of farmers, economic development personnel, and public representatives from Thurston, Lewis and Grays Harbor Counties traveled to Skagit and Whatcom Counties to visit grain, fruit, vegetable, and other farm product processing and marketing infrastructure. The trip occurred September 24<sup>th</sup> and 25<sup>th</sup>. The trip provided examples of farm product marketing infrastructure that is lacking, and needed in the south Puget Sound region. This includes infrastructure for storage and potentially crop processing, to enable farmers in the region to increase marketing opportunities. The tour included visits to a shared use kitchen, malting facility, the Skagit Valley College Brewing Academy, two berry processing facilities, a farm processing kitchen, the Puget Sound Food Hub, the WSU Bread Lab, Cairnspring Mills, a grain storage facility, and other sites. Tour participants hope that better farm product processing and storage infrastructure will lead to higher priced sales options for farmers. This could simply mean off-season sales of stored crops, processed crops such as malted barley or milled flour, or direct sales to local or regional buyers.

### Summary (selected take-aways)

- An aggregation and distribution system is very possible in south Puget Sound, one that connects to an existing Food Hub in northern western Washington allowing tie-in with existing sales accounts and distribution logistics
- Value-added processing infrastructure may be critical to sustained viability of farming in western Washington; lack of scale-appropriate processing infrastructure is really the problem, what is



*Figure 3. Bow Hill Blueberry product at the Mt. Vernon Food Co-op.*

available being home-scale equipment/facilities, or industrial scale. Equipment availability mirrors this. Several facilities on this tour specifically were filling this mid-scale-appropriate size.

- Commodity agriculture is very difficult to sustain in this developing region (western WA). In some counties it appears to be a sinking ship. Several issues depress economic viability: competition with foreign competitors with cheaper labor markets, increasing land values in western WA, increasing regulatory burdens, fewer regulations elsewhere, decreasing resource availability (land, water), disappearing infrastructure moving to lower cost production centers, among others. Technology has been critical in keeping commodity agriculture competitive, largely to replace labor with machinery such as in the berry industries.
- Specialty, niche, and value-added agriculture appear to be more promising, in particular if a legitimate story can be told of the crop origins, farmers, and using direct sales to farm customers and accounts with restaurants, institutions, and other.
- Likely initial infrastructure of interest in south Puget Sound should be grain storage and processing, and fruit/vegetable aggregation and distribution operations, both that connect with other regional food aggregators/distributors.
- A value-added processing facility in the south Puget Sound could create a product that could be sold through an aggregation/distribution facility-network, and be sold to regional institutional and retail markets.
- Considerable public (Port) investment has been made in agriculture in Skagit County, including for processing facilities, operational financing, shared use kitchen equipment, reduced rates on warehouse rental space, and other means.
- Public investment is critical elsewhere in attracting private capital investments in agriculture infrastructure. Food system development is a public good, and should be supported by grants, and other public funding mechanisms.
- Market access has been successfully spurred by building out key infrastructure. Examples include product research, malting facilities, grain storage facilities, food research facilities, milling facilities, commercial kitchen facilities, and other.
- Agricultural viability requires a full production system, a foodshed (not just production) that includes research, diverse markets for all crops in a rotation, crop (or livestock) storage, crop processing infrastructure, marketing infrastructure, visibility among customers (food with an identity and story), connections from the farmer and field to the end-customer.



*Figure 4. Grain storage under construction at Hughes Farm. The grain will serve as a critical rotation crop for potatoes. New malt and milling processing provide the needed markets.*

#### **A Few Themes**

- Value-added food processing that focuses on fresh local product can help keep farming viable in a rapidly developing regions of western Washington
- A common question is what is appropriate and feasible for ‘farming on the urban fringe’?
- Another common question is what products and facilities can capture public attention, and garner vigorous public support for farms that provide the raw ingredients



*Figure 5. Cold storage at the Mt. Vernon based Puget Sound Food Hub. The refrigerator will be full by the end of the evening pictured, as farmers bring in product prepared on that day's 'pick tickets'.*

- Get cities plugged in to the products farmers and partners in food business can make with local crops: maraschino cherries, Udon noodles from local buckwheat, single-malt whiskey, craft beer, nutrient-dense flash-freeze fruit and vegetables, Basque dried peppers, pickled blueberries, dried blueberry powder, farmstead breads, high quality non-adulterated flour...
- Outreach to chefs is needed
- Test kitchens that champion locally grown ingredients are helpful

#### Partners

- Farmers, scientists, millers, bakers, chefs, harvesters, food makers, distillers, brewers, maltsters, eaters, and more
- Regional Ports can help: finance and support value-added processing to help bring agriculture out of the commodity game
- Business innovators investing in the local food system, like Yvon Chouinard putting money in venture food funds

#### **SITE NOTES**

##### **Cairnspring Mills**

- Cairnspring Mill
  - Utilizes a mid-scale mill from Denmark, processing equipment that is not available in the US
  - Utilizes grain from 3,000 to 4,000 acres of cropland annually
  - Processes 500 kg/hr of fine ground whole meal flour from a Danish mill
  - Encourages more small mills to open in all regions
  - Sells to own accounts and into Puget Sound Foodhub (3,000 lbs per week)
  - Have 15-20 accounts for tortillas, bread, soba, bakeries, Tartine out of LA and Seoul, Essential Baking, Macrina, Bread Farm, San Juan businesses
  - Tempering machine from Italy, mill from Denmark, separator from South Africa
  - Require a 4 ton minimum when purchase grain from farmers
  - Custom mill
  - Utilize unique western Washington grains that tend to be higher in certain minerals such as iron, zinc. These and other characteristics impart distinct flavor to the baked products
  - Certified SQF, ARB, others. Food safety is a high priority.



*Figure 6. Tour stop at Cairnspring Mill learning about market potential in regional craft milling. A mill, says founder Kevin Morse, should be in every community.*

- Number of mills in the U.S.: 180,000 historically to 183 today
  - Four milling companies own 80% of the milling capacity
  - With flour mixing being what it is, the global flour commodity supply chain is non-traceable so we learned.

### Puget Sound Food Hub



*Figure 7. Puget Sound Food Hub based out of Mt. Vernon, WA. A southern Hub could access accounts and product available through Puget Sound Food Hub.*

- Distribution facility is located in Mt Vernon, WA
- Distribute 3,000 lbs per week, with Tuesday/Friday deliveries
- Completed \$1.4 million in sales in 2017, approaching \$2.4 million in 2018
- Utilizes an 8,000 square foot facility with 2,000 square feet of refrigerated space
- Utilizes four 16-foot box trucks for delivery, will add another truck in 2019
- Could establish a sister aggregation-distribution facility in south Puget Sound to combine south sound and north sound production, exchange and distribution
- Have utilized grants for establishing freezing capacity and refrigeration
- Provides services for 52 members, some members consisting of their own membership populations such as Lummi Island Wild

- Delivers fruit, vegetables, meat, dairy, flour and other products
- There were 88 orders being delivered on 9/25/18
- Provides/coordinates freight to San Juan Islands
- Utilizes four staff, online ordering and management software
- Sunday/Wednesday pick tickets provided to farmers
- Real-time invoices to all accounts on delivery. Accuracy a priority, no surprises
- Rentable space provided in dry, cold or freezer storage at \$125/pallet/month

### Skagit Valley Malting

- This facility is based at the Port of Skagit, which provides an affordable lease, provided buildings suited to needs of the facility, and helped finance equipment
- Public investment was crucial to the business in securing private investors
- Utilize a patented all-in-one malting vessel designed by the company
- Units take 8 months to build
- Sell to 200 breweries and several distilleries including Westland
- Utilizes private and public investments, and farmers and equity partners



*Figure 8. Adam of Skagit Valley Malting explains the all-in-one malting vessel developed by the company. As SVM brings on more vessels, they could buy from SW WA grain.*

- Not only built a machine to malt, but had to help build an entire malting infrastructure; “we didn’t realize that until we were several years in”
- Malting infrastructure includes grain storage, grain handling, laboratory space, lab equipment, and more
- Utilize 13 employees, produce 3 million pounds of finished malt annually
- Goal is to embody “the full grain expression for this county”
- Storage includes four 850 ton silos and four 400 ton silos
- The return on investment has been slow, many years
- Average price of the malt they produce is about \$0.70 per pound but it varies, and compares to their estimate of \$0.52 per pound of commodity malt

### From the Farm



*Figure 9. “From the Farm” is a shared use kitchen located on Port of Skagit land. The Port of Skagit asked the current kitchen manager, Tami Sakuma, “where do you want it, and what do you want?” They purchased the equipment for the kitchen from Dicks Restaurant Supply, and provide extremely competitive rent.*

- This is a 3,000 square foot commercial kitchen available for rent based at the Port of Skagit
- The Port provided the building, charges a very affordable rent, and funded almost all of the equipment.
- Initial questions by the Port to the business: what do you want, and where do you want it?
  - Equipment was purchased from Dick’s Restaurant Supply, new
  - \$100 thousand in equipment was purchased by the Port
- The kitchen is rented to 17 businesses
- The kitchen manager, who also runs a business out of the facility, provides initial training and consulting. Orientation is focused on cleaning and safety, and processes.
- The business run out of the kitchen makes shortcakes and other baked goods utilizing berries from Sakuma Farms, and other
- Half of the renters have a kitchen elsewhere, but utilize the rental kitchen for equipment or resources they don’t have
- Rental is slow from November through March, and busy season is April through September
- Every process is trial and error

- There are three rentable kitchen spaces
- Owners/managers take care of garbage, and occasional deep cleaning which is more often than they would like
- Kitchen users can utilize storage racks at \$15 per month
- Cold storage is \$10/shelf/month
- Rental costs \$13/hr, and consulting of \$25/hr
- Products made include jam, BBQ sauce, syrup, fresh product processing, and lots of baked goods
- Economics: if the enterprise can “pay for the utilities, then we feel good”
  - The arrangement works as a non-profit arm of a for-profit business that is run out of the kitchen by the kitchen anchor tenant and managers



*Figures 10, 11. Plant breeder Steve Lyon of ‘The Bread Lab’ leads a tour of the research, test kitchen and other teaching and learning spaces at this highly innovative WSU research facility. The Bread Lab is broadly credited with spurring infrastructure development across the grain, meat and vegetable supply chains in Skagit County. They have garnered national and global attention, and their efforts have helped fortify local farming against an onslaught of commodification, depressed prices, business attribution, and industry consolidation.*

### **Viva Farms**

- 33 acres
- Viva 2: 47 acres (a site for farmers to move onto prior to)
- Port provided infrastructure and land
- Greenhouses, plots, tractors and implements
- Pole barn, cold storage
- Food Hub account for sales connection



*Figure 12. One of the shared greenhouses at Viva farms being used to cure winter crops and store supplies for participating farmers at this farm incubator established on Port of Skagit property. The farm sits at the entrance to the Port of Skagit, and projects an immediate and palpable sense of support for local farming.*

### **Skagit Valley Brewing Academy**

- Grew out of Innovation Partnership Zone for brewing
- Brewing training
- Port of Skagit vision
- Port allowed for locating SVB Academy with other grain infrastructure

- 4<sup>th</sup> group of students currently
- 1-yr certification, 40 credits
- Faculty: all industry professionals
- Fully licensed brewery
- Lab on campus
- Analytics for brewing
- Connection: culinary arts + sustainable ag program + brewing (cross training, lecture swaps)
- Mirror farm to table on campus: high priority on helping farmers get product to market
- Looking into starting food truck that would use local produce and feature local ingredients; be on site for brewing events to provide the food: support local farms
- 165-hr internship, 20 student cohorts
- Port: vision, placement, co-location, rent (good deal)



*Figure 13. Our group receives an overview of the Skagit Valley College Brewing Academy. We were greeted with an opportunity to sample three different beers brewed at the teaching brewery, some from student recipes. Several utilize grain from local farmers and are malted at Skagit Valley Malting. The academy is located on Port property.*

#### Cloud Mountain Farm

- Grower driven research
- Northwest Agriculture Research Fund (NARF)
- Rebuild this research fund over a whole region – long-term goal, including south sound
- On-site:
  - Cold storage
  - Consult on growing systems (fruit production in particular)
  - Small apple processing line
  - Processing kitchen for rent, 20 x 40; current processors include for dried peppers and leafy greens
  - Food dehydrator
- Incubator farm, 13 acres in production, three new farmers currently using site
  - Provide land, equipment, storage, access to markets (Puget Sound Food Hub member, and former aggregation site)
- Specialty cutting greens research demonstration



*Figure 14. A farming couple growing peppers at the incubator farm also processes Basque peppers in the Cloud Mountain Farm processing kitchen. The peppers are dried and powdered and fetch a lucrative price as a specialty culinary product. The farmers suggested the incubator and kitchen were crucial to the business progress they've made.*

## Bow Hill Blueberries

- Established 1947, 10 acres
- WSDA licensed processing kitchen
- Freezer storage, cold storage
- Small privately held farm and processing kitchen for value-added blueberry products
- Member of Puget Sound Food Hub, former aggregation site for the Food Hub
- Value-added food processing is critical for small berry operations that cannot compete on a commodity scale. According to this grower, the small operations are failing:
  - If they are not organic (not getting high enough cost margin)
  - Because there is no co-packing (either for sorting, marketing, or for making into value-added products that can fetch higher cost)
- Small blueberry operations are getting torn out
- This facility is an example of scale-appropriate, filling a key gap between nothing and industrial.
- Processed products include jam, juice, juice powder, dried product and pickled product (all blueberries), and frozen
- Funding has come from VAGP grants, which can pay for value-added product development including for: labor, materials, marketing, labeling, labeling design and other costs, not for equipment however.



*Figure 15. A worker at Bow Hill Blueberries flash pasteurizes blueberry juice, which sells for \$35 per liter roughly, considerably more than many wines. The products are considered a health tonic for some due to high antioxidant levels. For*



*Figure 17. Harley, founder and owner of Bow Hill Blueberries shows us the Slovenian berry press. This scale and quality of equipment is not manufactured in the U.S and must be imported.*

*Figure 16. Securing visible shelf space at retailers is critical to differentiating local product. Harley suggested that a frozen fruit and vegetable product line could be very successful, but that it should utilize freezer shelving/display in a way to differentiate it from non-local competitors.*

