ALASKA STATE LEGISLATURE
HOUSE SPECIAL COMMITTEE ON ECONOMIC DEVELOPMENT, INTERNATIONAL TRADE AND TOURISM
January 27, 2011
10:18 a.m.

MEMBERS PRESENT

Representative Bob Herron, Chair
Representative Neal Foster
Representative Wes Keller
Representative Cathy Engstrom Munoz
Representative Steve Thompson
Representative Peggy Wilson
Representative Berta Gardner
Representative Chris Tuck

MEMBERS ABSENT

Representative Kurt Olson, Vice Chair

COMMITTEE CALENDAR

OVERVIEW(S): AGRICULTURE IN ALASKA

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

REPRESENTATIVE ALAN AUSTERMAN
Alaska State Legislature
Juneau, Alaska
POSITION STATEMENT: Spoke to the committee on the subject of a missed opportunity for economic development in the state.

TIM MEYERS, Owner
Meyers Farm
Bethel, Alaska
POSITION STATEMENT: Described farming techniques on his organic farm during the overview on agriculture in Alaska.

SIOUX-Z HUMPHREY MARSHALL, Chief Executive Officer
NorthernLatitude Controlled Environment Agriculture

Anchorage, Alaska
POSITION STATEMENT: Provided a PowerPoint presentation on NorthernLatitude Controlled Environment Agriculture during the overview on agriculture in Alaska.

PETE FELLMAN
Delta Junction, Alaska
POSITION STATEMENT: Introduced Dr. Jenifer Huang McBeath.

JENIFER HUANG McBEATH PhD, Professor
Plant Pathology and Biotechnology Laboratory
Agricultural and Forestry Experiment Station
University of Alaska Fairbanks (UAF)
Fairbanks, Alaska
POSITION STATEMENT: Presented the report titled, "Prospects and Challenges of Alaska Seed Potatoes Export to Asia."

FRANCI HAVEMEISTER, Director
Central Office
Division of Agriculture
Department of Natural Resources (DNR)
Palmer, Alaska
POSITION STATEMENT: Testified during the overview on agriculture in Alaska.

BRYCE WRIGLEY, President
Alaska Farm Bureau
Delta Junction, Alaska
POSITION STATEMENT: Provided a PowerPoint presentation titled, "Alaskans Feeding Alaska."

ACTION NARRATIVE

10:18:49 AM

CHAIR BOB HERRON called the House Special Committee on Economic Development, International Trade and Tourism meeting to order at 10:18 a.m. Representatives Herron, Peggy Wilson, Foster, Thompson, Tuck, and Gardner were present at the call to order. Representatives Munoz and Keller arrived as the meeting was in progress. Representative Alan Austerman was also in attendance.

OVERVIEW(S): AGRICULTURE IN ALASKA

10:19:19 AM

CHAIR HERRON announced that the only order of business would be presentations on agriculture in Alaska. He then introduced a surprise special guest who would share a missed opportunity for economic development in the state.

10:19:59 AM

REPRESENTATIVE ALAN AUSTERMAN, Alaska State Legislature, representing Kodiak and the Lake and Peninsula areas, recalled during his term as chair of the Subcommittee for Commerce, Community, and Economic Development, House Finance Committee, the economic development function of the Department of Commerce, Community & Economic Development (DCCED) was dominated by the functions of community and regional affairs. Since then there has been a change of administration and personnel, and the department is "turning around." But prior to that change, The Boeing Company announced plans to build a plant outside of its home state of Washington, and sent letters of interest to Alaska and other locations. The letter was received by DCCED and "floated around inside the department for two weeks, going from desk to desk looking for somebody that could respond to them ... [and] it ended up on somebody's desk and just stayed there." He opined this was a big missed opportunity, and Virginia got the new plant. Alaska needs to make an effort on an ongoing basis to reach out to industry and stabilize its economic base which is now 90 percent dependent on oil. Representative Austerman expressed his hope that an opportunity that the state does not miss is to market Alaska, not only for tourism and fishing, but as a business destination. He pointed out that the legislature invested $17 million in marketing tourism last year and urged that a fund of $30 million be directed to additional new markets, such as agriculture and business. He emphasized that major manufacturers are located in places where they were invited to come.

10:24:53 AM

CHAIR HERRON restated his plan for a surprise special speaker at each meeting.

10:27:50 AM

TIM MEYERS, owner, Meyers Farm, informed the committee he and his wife began farming a three and one-half acre farm in 2003 and have expanded to ten acres. They farm on land they own and land leased from the state. Mr. Meyers said they have success planting crops outside in early May and begin to harvest

cabbages and Napa cabbages earlier than most farmers. He said people are amazed at the crop yields, as the farm is strictly organic and no commercial fertilizers are used. Mr. Meyers opened one acre of leased land that had never been farmed, added 1,500 pounds of ground fish bones and harvested 8,000 pounds of potatoes. From the middle of June to the end of September the Meyers box a variety of produce for local sale.

10:30:38 AM

MR. MEYERS described their experiences with a "high tunnel" - supplied by the U.S. Department of Agriculture (USDA) - designed to extend the growing season. Last year they built a root cellar that has the potential of storing 200,000 pounds of crops. Harvest from the farm last year included 8,000 pounds of potatoes, 7,000 pounds of cabbage, 800 pounds of rutabagas, 800 pounds of turnips, 400 pounds of beets and 400 pounds of onions, the remainder of which is still being sold from the root cellar. Mr. Meyers related a publication from 2008 indicated that the soil in the Kuskokwim valley and around Bristol Bay is highly fertile and is capable of supporting sustainable agriculture. In fact, he opined their farm is located in the most pristine organic region left on the planet that has not been developed for agriculture. The future expansion of agriculture in Western Alaska is further encouraged by the readily available air transportation to markets. He then described his system of fertilizing by adding ground fish to water, aerating the water for two weeks, and applying it to the soil. The farm also had great success raising turkeys last fall.

10:36:50 AM

REPRESENTATIVE GARDNER recalled her visit to Meyers Farm and said she was very impressed with the farm and its activities.

10:37:26 AM

CHAIR HERRON asked for Mr. Meyers' opinion on seed potatoes grown in the Kuskokwim area.

10:37:41 AM

MR. MEYERS observed that growing certified seed potatoes requires three inspections per season by the Plant Materials Center, Division of Agriculture, Department of Natural Resources (DNR). This region is right for growing organic seed potatoes

because of the isolation, but there is a need for infrastructure and more cultivated land.

10:38:15 AM

REPRESENTATIVE P. WILSON expressed her surprise at the shortage of land available to grow organic food.

10:39:11 AM

MR. MEYERS agreed the shortage of fertile land for organic farming is a concern. He acknowledged the difficulty of farming in this region as there is no infrastructure or history of agriculture. He has been invited to the Resource Conservation and Development, Natural Resources Conservation Service, USDA, national conference in Washington, D.C., to speak about the farm. In response to Representative Peggy Wilson, he observed that the ground is so cold produce should not grow, but it is delicious and very high in quality. With sufficient production, he opined he "could be shipping it all over the world."

REPRESENTATIVE KELLER offered that the flavor is from all of the sunshine.

10:42:28 AM

REPRESENTATIVE GARDNER asked whether Mr. Meyers has knowledge of fungus or pest problems.

10:42:57 AM

MR. MEYERS indicated no, in fact, the big problem for most places in Alaska is with moose, but Meyers Farm is pest free except for root maggots and aphids that are on purchased starts.

10:44:03 AM

SIOUX-Z HUMPHREY MARSHALL, Chief Executive Officer, NorthernLatitude Controlled Environment Agriculture, informed the committee her company is an indoor farm located in Anchorage that grows produce year around. The mission of the farm is to be commercial indoor agriculture production leaders in the northern latitudes; to help northern communities gain food security and independence; to grow local, clean, and nutritious food. She explained that the controlled environment agriculture (CEA) technique used by her company is a hydroponic nutrient film technique (NFT), and is not a greenhouse, but uses

fluorescent grow lights, a temperature controlled environment, and an air circulation system housed in an enclosed warehouse. At the beginning of her venture, she evaluated growing the product in a commercial greenhouse using waste heat from the new Anchorage Regional Landfill Gas-to-Energy power plant. However, it is necessary to be adjacent to the power plant to collect waste heat at an economic cost. Next, a pilot program growing lettuce and basil indoors was attempted, but because of the cost of the electricity to power the large lights needed to grow full-sized vegetables, a head of lettuce cost $20. Ms. Humphrey Marshall then tried growing micro greens. She explained that micro greens can be grown in a rack system to save space and they have a short growth cycle, amazing flavors, and are a viable product to market economically. In addition, the rack system is adaptable to a home or school setting and uses a low amount of electricity. Since September, NorthernLatitude has been growing pesticide-free products and selling weekly harvests to local restaurants, Food Services of America - actually displacing its California supplier - , and Glacier Valley CSA. Future growth for the company will include franchises, the marketing of growing kits, custom racks, technical support, and expansion into rural communities.

10:51:16 AM

REPRESENTATIVE GARDNER asked whether NorthernLatitude has any customers in Juneau and if the company is part of Robin Richardson's Global Foods Cooperative, LLC.

10:51:45 AM

MS. HUMPHREY MARSHALL responded that she is not marketing in Juneau yet, and that she is interested in joining the food cooperative.

10:52:08 AM

CHAIR HERRON asked for the cost per serving of NorthernLatitude products.

10:52:23 AM

MS. HUMPHREY MARSHALL said a container packed for sale to a restaurant sells for $18. In further response to Chair Herron, she said the warehouse is located at 5801 Arctic Blvd., Anchorage, and she her legislative representatives are Representative Doogan and Senator French.

10:53:21 AM

REPRESENTATIVE TUCK reported that the Arctic Blvd. area of Anchorage has agricultural, manufacturing, residential, warehousing, and retail interests. He expressed his personal interest in hydroponic systems of food production.

10:56:01 AM

MS. HUMPHREY MARSHALL invited members to visit her business.

10:56:42 AM

PETE FELLMAN, Dairy Farmer, recalled during the 80's residents questioned whether farming could be successful in Alaska. Today farmers have proven that farming can be abundantly productive, and can help broaden the security and the economic base of the state. Alaska has invested a total of $190 million in agriculture, much of which has provided roads, a power infrastructure, and land, and he urged the legislature to do everything possible to enhance the success of agriculture. He then reminded the committee of the past Taiwanese seed potato project and how much was learned about how to export seed potatoes from Alaska. Now, Alaska has a great opportunity to export seed potatoes to China, generating an "unbelievable" amount to its economy. Mr. Fellman introduced Dr. McBeath.

11:00:30 AM

JENIFER HUANG McBEATH PhD, Professor, Plant Pathology and Biotechnology Laboratory, Agricultural and Forestry Experiment Station, University of Alaska Fairbanks (UAF), expressed her excitement about presenting a project "which is 20 years in the making." She assured the committee that her project addresses the question of "how to market Alaska" that was raised by Representative Austerman earlier in the hearing. In fact, when she is in contact with officials from the Taiwanese and Chinese governments, she presents only the potential and quality of Alaska's agriculture. Today, Alaska is the only exported source of seed potatoes for the largest seed potato market in the world: Taiwan and China. Dr. McBeath provided background information on the project and noted that the project is complex because it involves the international trade of agricultural products. It is known that Alaska has 12 million acres of land suitable for agriculture, but a limited portion is farmed due to its small local market and long distances to consumers. She

pointed out the challenges to agricultural development: isolation; harsh climatic conditions; conversion of farmland from wilderness; small domestic market. Further challenges from the political climate are: inconsistent agricultural policies that lead to the failure of projects; dependency on multi-national oil and mining corporations that leads to the colonization of Alaska by corporations; reluctance in the long-term investment of state funds in agricultural development and research; lack of infrastructure, such as storage or roads to the Yukon-Kuskokwim Delta; ignorance of diseases and pests. These challenges have resulted in small professional farms - 400 acres is considered a big farm in Alaska - and the inability to "dream big."

11:08:20 AM

DR. McBEATH stated that opening the export market to China changed this situation. In 1989, after the problems to Alaska farming caused by bacterial ring rot (BRR), she developed a new concept of a lab test that resulted in disease-free seed potatoes. The concept was based on scientific lab testing, and produced the very best seed potatoes in the world. However, the relationships among Alaska seed potato production, U.S. interests and the interests of China and Taiwan are complicated, and must be mutually beneficial, thus the exportation of seed potatoes must satisfy the needs of all of the parties. Dr. McBeath provided a history of the activities from 1988-2003 that allowed Alaska to gain access to Chinese and Taiwanese markets, beginning with the BRR epidemic, and noted "how complicated the issue is and how time-consuming" the process was. She advised the committee that a 20-year process is not a long time in the international agricultural trade; in fact, The Netherlands, which is the largest exporter of seed potatoes in the world, had already spent 20 years negotiating for the Chinese market. Between 1988-1989 BRR, which is a quarantined, zero-tolerance disease devastating to a far, became epidemic in Alaska with an incidence rate of 15 percent, and the Alaska Farmers and Stockgrowers Association asked Dr. McBeath to solve the BRR problem and develop a market for Alaska seed potatoes. By 1990, Dr. McBeath had developed a lab-test system for disease-free seed potatoes. Due to high production and transportation costs, the most appropriate market for Alaska seed potatoes was the international market and in 1994, she was successful in establishing export protocols to Taiwan for Alaska seed potatoes. Taiwan and China are worthy markets because at that time both countries refused any imports of seed potatoes. The "greatest prize in agriculture in the world of seed potatoes"

was achieved in 2003 when China signed export protocols for Alaska seed potatoes.

11:15:48 AM

DR. McBEATH observed very few people realize the value of the lab-test disease-free testing program that allows Alaska to be the only state in the U.S., as well as the world, to export seed potatoes to Taiwan and China. Other accomplishments are that Alaska is one of five U.S. states permitted to export table stock potatoes to Taiwan; one of two U.S. states permitted to export asparagus; the only state in the U.S. permitted to export carrots to Taiwan. She stressed that the international requirements that are needed for these accomplishments are based on the lab-test disease-free certification for: potato viruses; bacterial ring rot; late blight; phytoplasmas; nematodes. Addressing those who question the need to fund the testing program, she emphasized that testing results in the world's best seed potatoes. The procedure for testing begins with samples taken in the field, which are then returned to the lab and tested. Dr. McBeath continued to explain that all of the activities from 2003 to today, have cost the state very little money because her travel to Taiwan and China also includes talks paid by the federal government and other organizations. For example, as a result of her trip to Kunming, Yunnan, as an U.S. Embassy Science Fellow to the World Potato Congress, exportation of 20 tons of Alaska seed potatoes became the first shipment of seed potatoes of foreign origin entering China through commercial channels since 1949. She indicated she has provided a written report titled, "Prospects and Challenges of Alaska Seed Potatoes Export to Asia," in the committee packet for members to review. She concluded her presentation after noting that through her research she developed a plant growth microorganism that will enhance growth during Alaska's short growing season.

11:24:57 AM

REPRESENTATIVE GARDNER asked about the incident in 2008-2009 when 40 tons of seed potatoes were ordered by Chinese interests but none were available.

DR. McBEATH explained that in 2008, 40 metric tons of seed potatoes were ordered through former Senator Therriault by a Mr. Shen, but the state did not appropriate money in 2007 for testing, thus the seed potatoes could not be exported.

REPRESENTATIVE GARDNER asked how appropriations are made to the program.

DR. McBEATH indicated appropriations are made directly to her program; in fact, UAF does not want her program included in its budget request because of the funding ceiling. Therefore, appropriations sometimes come through DNR, or through the Alaska Manufacturing Extension Partnership, Inc. (AMEP) which partners with DCCED.

11:27:53 AM

CHAIR HERRON asked for the net harvest from 40 tons of seed potatoes.

11:29:06 AM

DR. McBEATH estimated a harvest of "10 times."

11:29:12 AM

FRANCI HAVEMEISTER, Director, Central Office, Division of Agriculture, Department of Natural Resources (DNR), informed the committee the Division of Agriculture has cooperated with and supported the abovementioned program for many years. She recalled two weeks ago she was in Delta and witnessed the packing of trucks ready for shipment. The division conducted a satisfactory quality inspection at that time. She expressed the division's optimism about the program, and affirmed farmers are interested in participating. Ms. Havemeister reiterated the success of Alaska's farm production and acknowledged that "marketing continues to be an issue for us."

11:31:03 AM

CHAIR HERRON referred to Dr. McBeath's comments on the state's agricultural policy and said the committee would want to work with the division to examine her concerns.

11:31:34 AM

DR. McBEATH said, "As a person in science, many times I might not be diplomatic enough to state my point of view."

11:32:01 AM

CHAIR HERRON said Dr. McBeath's testimony and presentation was appreciated, and pointed out the importance of establishing a dialog between the committee and the director.

11:32:29 AM

BRYCE WRIGLEY, President, Alaska Farm Bureau, expressed his intent to share information that reflects the attitude of most of the farmers and ranchers in Alaska regarding their future opportunities. Various land surveys conducted in Alaska have identified 8.9 million-18.4 million acres of land that are suitable for some form of agriculture. In 1976, Governor Hammond approved a plan to invest a portion of oil revenue to develop renewable resources, including agriculture. During the following years, 84,000 acres in Delta were sold by the state, and the land was cleared and planted raising primarily barley. The governor's 10-year plan for agriculture called for 500,000 acres to be in production by 1992, a substantial portion intended for growing barley to fuel meat production and for export to Pacific Rim countries; however, in 1982 the plan was abandoned and there was no further development for about 30 years. Also during those years, markets did not keep pace with production, and grain surpluses prompted farmers to scale back acreage under cultivation. Additionally, the Alaska Agricultural Action Council was disbanded. Even under these circumstances, he assured the committee that Alaska farmers and ranchers continue to work in all facets of agriculture production and to search for new markets for grain, vegetables, meat, and milk products in order to create diversified markets and stabilize the industry. One possibility for a new agricultural product to market is biomass for fuel; in fact, barley, hay, straw, and canola oil are already available for biomass to generate heat and electricity. Mr. Wrigley advised that as a result of the federal mandate requiring federal facilities to use renewable energy, the U.S. Army post Fort Greeley is looking at converting to biomass fuel and using up to 15,000 acres of barley to generate 275 billion British thermal units (Btus) of heat. He provided a comparison of barley as a home heating fuel source, and stated that it costs 50 percent more to heat a home in the Interior with fuel oil than with barley. Substantial savings for the state would be seen if barley were included in AEA's Power Cost Equalization program that is used to supplement heating fuel in the villages. Barley fuel has a one-year harvest cycle, which is much less than wood or oil; is safer to ship and store than fuel oil; agricultural sales "turn over" in a community more often than receipts from oil. Mr. Wrigley then turned to the subject of the export of

seed potatoes and reiterated that seed potato farming has a 25-year history in Alaska. Private investors plan to eventually raise 50,000 acres of seed potatoes for export to China. If this program grows as planned, direct sales of seed potatoes would exceed $300 million. Crops planted for rotation and livestock could add an additional $75,000 million, and grow to over $3 billion of economic activity to Alaska when the multiplier of direct sales in agriculture is calculated. As a matter of fact, last week 100 tons of seed potatoes were shipped to China, and next year's sales are anticipated to be about 2,000 tons. Mr. Wrigley furnished a chart that showed the current value of agricultural products raised in Delta alone is about $9.5 million per year. Since March 2010, seed potato exports to China may add $30 million with an additional $3 million in increased barley production and rotation crops by 2015. The export program's long-term goal is to grow 25,000 tons of potatoes in the Tanana Valley resulting in $108 million in direct exports, and $24.7 million in other crops, for a total in excess of $132 million. He explained that an economic multiplier captures the economic activity generated by money that circulates in a community after the original point of sale. For agriculture, the multiplier commonly used is eight or nine, meaning that the total economic activity to the Delta community from farm sales could be $1 billion per year. Mr. Wrigley observed that Alaska has become lax in its production of food, thereby putting its food supply at risk. Disruption of transportation is not uncommon and could cause food shortages in Alaska villages and cities. In-state production of food provides security from shortages due to natural disasters, such as Hurricane Katrina. He warned that there is less capacity for Alaskans to feed themselves now then there was at the time of the 1964 Good Friday Earthquake. Furthermore, there is no emergency storage of food set aside for Alaska in Portland or Seattle, and if there were, it would be 2,000 miles away and would serve no purpose during a transportation emergency. He stressed that Alaska's emergency storehouse should be the fields, field lots, bins, and cellars of Alaskan farmers and urged a return to the 1980s' agricultural plan to identify goals and actions, bring industry leaders into planning, and create a synergistic effort. Fortunately, foods from every food group can be grown in Alaska to provide enough to sustain life in an emergency. Although these foods are not grown in quantity at this time, the production of meat, milk, and cheese, and the processing of vegetables to store for the winter, can be reintroduced. Although grain production is prolific, milling is needed to supply residents with locally grown flour. Greenhouses located in rural Alaska could improve the quality of

nutrition in remote areas. Mr. Wrigley pointed out that the state spends millions of dollars to address social illnesses in rural areas, and suggested that the reintroduction of agriculture, with traditional values and self-reliance, may cure the underlying problems. Because Alaska agriculture is a small industry facing competition from outside suppliers and government policies and regulations that prevent "start-up operations", it is critical that there be a healthy business climate. The long process of building an agriculture infrastructure in Alaska must begin now, before a food shortage emergency arises. Mr. Wrigley concluded that Alaska lacks an agriculture culture that understands how food is raised, with good and bad years, but that farmers will continue to plant and be successful.

11:45:55 AM

REPRESENTATIVE P. WILSON expressed her support for agriculture in Alaska.

11:46:35 AM

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Economic Development, International Trade and Tourism meeting was adjourned at ll:46 a.m.