

Alaska Department of Natural Resources, Division of Agriculture

Amy Pettit Amy.Pettit@alaska.gov 907-761-3864

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FINAL REPORT

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Project #1 Specialty Crop Project Assistant

FINAL REPORT

Project Summary

The Alaska specialty crop industry continues to grow. The Division of Agriculture continues to focus on outreach to specialty crop producers and consumers. The project assistant focused efforts on increasing the number of specialty crop growers in the Alaska Grown marketing program; this continues to be achieved. The project assistant is working on a tool to improve communication with the wholesale produce industry of Alaska.

The project assistant position was first brought on with 08 SCBG-FB funding.

Project Approach

The project assistant was successful at expanding the number of specialty crop producers who join the Alaska Grown marketing program. This was achieved by increasing the amount of outreach conducted within the specialty crop industry. Increased outreach included: an attempt to announce more media releases in 2011 (5) than in previous years (3); more newsletter articles encouraging participation in the Alaska Grown program and more presentations to members of the specialty crop industry.

The project assistant conducted a survey of wholesale produce businesses in Alaska that were receiving the weekly e-newsletter during the peak of the growing season. Feedback received indicated that the majority of recipients did not find the newsletter beneficial. Although it was declared to be interesting and “somewhat beneficial,” it was not considered to be as useful as the effort necessary to compile the data.

Goals & Outcomes Achieved

The original goal of this project included a 5% increase in the number of participants in the Alaska Grown program. When the project assistant began working for the Division, 476 producers were members of the Alaska Grown marketing program. At the end of one year 520 producers were members, a 9% increase. Seventy percent of the new producers who joined the program were specialty crop producers.

Beneficiaries

Direct beneficiaries of this project include the 31 specialty crop producers who joined the Alaska Grown marketing program as a result of being outreached to by the project assistant.

Lessons Learned

Division staff initially created the e-newsletter with input from and for use by wholesale produce buyers two years ago. Although we had increased the number of recipients of the newsletter, we felt it was necessary to reevaluate its usefulness. The results of the survey we conducted indicated that the newsletter was no longer accomplishing the original goals. Staff are still considering new options for increasing communication.

Contact Person

Amy Pettit, Marketing Manager

Amy.Pettit@alaska.gov

907-761-3864

Project #2 2011 Specialty Crop Campaign

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Project Summary

Alaska's short growing season means producers have a limited amount of time to produce, harvest and market their specialty crops. Alaska Grown specialty crops become readily available in mid-June, but the fresh market season only lasts from 10-15 weeks, depending on the variety. It is important that consumers be reminded early and often of the benefits of purchasing Alaska Grown specialty crops.

Project Approach

Division staff worked with a marketing firm to outline a multi-project specialty crop campaign which was launched on Alaska Agriculture Day, Tuesday May 3rd. The campaign consisted of five projects, all promoting Alaska Grown specialty crops. The five projects included:

- Bench advertisements outside of three grocery stores that sell Alaska Grown specialty crops with an audience reach of approximately 18% of the total population of Alaska;
- A full page advertisement in a premiere Alaska Travel Guide publication targeting visitors to Alaska and reminding them to source Alaska Grown specialty crops during their visit;
- A full page advertisement in Alaska Wellness Magazine, reminding Alaskans of the benefits of Alaska Grown specialty crops
- Running an existing commercial to promote Alaska Grown specialty crops;
- Promoting awareness of Alaska Grown specialty crop agriculture by highlighting Alaska Agriculture Day in six different Alaska newspapers;

Goals & Outcomes Achieved

The overall goal of this project was to raise awareness of Alaska Grown specialty crops resulting in an increase in sales for the industry. The marketing firm providing consultation on this project discouraged spending funds on consumer research, indicating that the total budget would not allow for sufficient or defensible results.

The Alaska Agricultural Statistics Service reported an increase in cash receipts for all vegetables from 2010 to 2011 of 15%.

Beneficiaries

Beneficiaries of this project include the 360 specialty crop producers in Alaska who saw an increase in sales in 2011 as a result of the marketing campaign conducted.

Lessons Learned

Advertising the freshness, nutritional quality and healthy aspect of specialty crops is a popular trend at this time. Seeking out advertising partners who share the same strategic messaging, i.e. health/fitness clubs, health food stores is beneficial.

Contact Person

Amy Pettit, Marketing Manager

Amy.Pettit@alaska.gov

907-761-3864

Project #4 Rhubarb Market Development

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Project Summary

Rhubarb is a re-emerging specialty crop, finding popularity in farmers markets and at our state fair. Rhubarb is known as a prolific crop in Alaska that thrives in our short growing season. Producers were interested in identifying the current Alaskan market demand. This project enhanced producer contact and communication and identified potential Alaskan market outlets.

Project Approach

Division staff worked with engaged Alaska rhubarb producers to host two workshops, update a rhubarb website, enhance communication amongst rhubarb producers, processors and buyers, and conduct research on both market options and rhubarb bottling data.

An RFP was announced for the rhubarb market research. Department of Natural Resources procurement officers selected the firm and awarded the contract. The Project Assistant provided input and feedback on preliminary outlines. The market research was completed in early 2011.

The first workshop was hosted in February 2011 in conjunction with the annual Produce Growers conference. Thirty rhubarb producers attended. The market research results were shared with all of the attendees. The full report can be viewed on the Division web site at <http://dnr.alaska.gov/ag/Marketing/2011RhubarbMktResearch.pdf>

In 2012 the rhubarb group decided that updating the existing blog would be a better use of funds than creating a new site. The website <http://akrhubarb.blogspot.com> was updated extensively in early 2012. As of November 25, 2013, the page has received over 39,696 unique views.

The second workshop was hosted in May of 2013. The agenda was developed with the assistance of the group. Guest speakers from the Oregon Department of Agriculture and Oregon Food Innovation Center were targeted to bring to Alaska. The agenda from the two day workshop follows.

9:00	Overview & Intro of Guests
9:15	Group Intro
9:30	Trends
10:15	Market Niches
10:45	BREAK
11:00	Processing Options
11:45	BREAK LUNCH ON YOUR OWN
1:00 – 5:00pm	Hands- On Product Development in an Approved Kitchen

9:00	Intro & Overview
9:10	Food Vocabulary
9:45	Pricing
10:15	Packaging/Labeling
10:45	Shelf Life & Food Safety
11:15	BREAK
11:30	Regulations/Laws
12:00	LUNCH
12:30	GUEST PANEL DURING LUNCH
1:00	Liability Insurance
1:30	Preparing to Sell to Buyers
2:00	Alaska Buyers Perspective
2:45	Marketing Strategies
3:15	Q & A Session with all speakers
4:00	Wrap-Up, Evaluations

Twenty producers attended the two-day workshop. Evaluations indicated a positive increase in knowledge about all six specialty crop focus areas: marketing, processing, product development, packaging, food safety regulations and strategy.

Goals & Outcomes Achieved

The original goals of this project included:

- Tracking producer outreach through meetings, with a target of reaching 100 specialty crop producers.

Fifty specialty crop producers were directly reached through the two workshops. Although this is less than the original goal of 100, it is estimated that well over 200 specialty crop producers were made aware of the project and now have a better understanding of the demand for rhubarb throughout the State.

- Tracking visits to the new website, with a target of 1000 hits within the first year.

The website has had over 40,000 unique views, far surpassing the original goal.

- Tracking the number of producers who join the association, with a target of 25.

Fourteen producers have chosen to have their contact information listed on the website as sellers of rhubarb. Although it is less than originally targeted, all 14 have indicated positive sales and activity as a result of joining.

- Creating samples of bottled rhubarb juice for analysis.

Initial samples have been reviewed by experts from the State of Alaska, Food Safety & Sanitation experts program, the Oregon Food Innovation Center and various potential retail buyers. Conclusive results have not been achieved. The recipe for the juice continues to be adjusted to eliminate sediment and product settling. Initial indications reflect that the colored bottles will be desired by buyers.

Beneficiaries

The beneficiaries of this project include the specialty crop producers who have expanded their knowledge of rhubarb marketing opportunities and product development standards.

Lessons Learned

Rhubarb is an incredibly versatile specialty crop. During the hands-on product development session the following rhubarb products were created: rhubarb soda, rhubarb syrup, rhubarb hard candy, a rhubarb torte and rhubarb caramel.

Due in large part to the excitement around rhubarb created by this project, a “Rhubarb Rhumble” recipe contest was held during an annual summer festival in Palmer, Alaska. The winning rhubarb recipe was a chili made without any tomato products, but with rhubarb instead. The product was so well received that the local restaurant now includes the item on a rotating schedule.

Contact Person

Amy Pettit, Marketing Manager

Amy.Pettit@alaska.gov

907-761-3864

Additional information

The market research document can be viewed at:

<http://dnr.alaska.gov/ag/Marketing/2011RhubarbMktResearch.pdf>

The rhubarb website can be viewed at: <http://akrhubarb.blogspot.com>

Project #5 Web-site

Project Summary

The Division of Agriculture's Alaska Grown program partnered with the Alaska FFA to manage the web site www.alaskagrown.org. The site was utilized as an informational and promotional tool for the Alaska Grown program; it was the first website to appear when a google search was performed on the terms "Alaska Grown."

Project Approach

Division of Agriculture staff contracted with the Alaska FFA to update the website to meet the State of Alaska's web standards. The FFA Advisor purchased the domain and built the site from scratch. It was designed to be incredibly user friendly for both consumers and producers with very clear sections for each audience.

During the design phase, the web site was reviewed by a group of stakeholders for feedback. All indications were that the site was going to be a great resource.

Unfortunately the project was delayed multiple times and then finally ended due to the State of Alaska changing their policy on web standards and not allowing for the project to continue. At that time the website address was redirected to point towards the Division of Agriculture website. The majority of project funds were reallocated to other projects.

Goals & Outcomes Achieved

The original goal of this project was to create a website that would function as a "go to" resource for specialty crop producers and consumers. It would contain the Food & Farm Products Directory, list all farmers markets, farm stands and other specialty crop outlets. The web address would be widely recognized, easy to promote and memorable. It was targeted to have over 1000 hits within the first six months of the project.

Although the project was not completed as originally targeted, it is important to point out that the address still exists and is captured, such that anyone who ends up at that address is redirected to the Division of Agriculture webpage. All of the information originally intended to be included on the website is available at the Division of Agriculture website.

Beneficiaries

The beneficiaries of this project include the members of the public who search the term "Alaska Grown" and end up viewing the Division of Agriculture web page.

Lessons Learned

Project managers should gauge whether a project has the potential to be impacted by changes to State government policies and avoid that risk if at all possible.

Contact Person

Amy Pettit, Marketing Manager

Amy.Pettit@alaska.gov

907-761-3864

Project #6 MSFB & Chef Marketing Campaign

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Project Summary

The Mat Su Chapter of the Alaska Farm Bureau (MSFB) along with Chef Rob Kinneen recognized that educating consumers about the availability of and different uses for Alaska Grown specialty crops is important. The duo created videos, webisodes and photos as an educational tool to allow viewers a greater understanding of Alaska Grown specialty crop production and use.

Project Approach

The MSFB targeted specialty crop producers for videoing; Chef Kinneen created recipes to highlight Alaska Grown specialty crops. The specialty crops highlighted in the project include a wide variety of field-grown vegetables, lettuces, root crops including potatoes, carrots and beets, as well as nursery/greenhouse products.

Recipes featured non-specialty crop items; for that reason partner organizations were sought to cover the promotion of non-specialty crops. Partner organizations included the State of Alaska, Obesity Prevention and Control Program, the Alaska Seafood Marketing Institute, and Kaladi Brothers coffee. The videos, photos and webisodes were highly promoted and viewed throughout 2011 and 2012.

Goals & Outcomes Achieved

The videos, webisodes and photos created through this collaboration have been used to raise awareness of Alaska Grown specialty crops. The 'celebrity' status of Chef Kinneen has garnered a new level of respect for locally grown specialty crops.

The media created has been viewed by thousands of individuals. The three webisodes created by Chef Kinneen have been viewed over 16,400 times. The videos and photos created by the MSFB were featured at the Alaska State Fair; the largest single event in the State with over 300,000 people in attendance throughout the 12 days. It is estimated that at least 10% of fairgoers saw the photos and videos.

Beneficiaries

The beneficiaries of this project include the 360 specialty crop producers in the State of Alaska. The videos, webisodes and photographs were created to increase awareness of Alaska Grown specialty crops. It is assumed that this increased awareness will result in changes to buying decisions for the general public. The webisodes and recipes provide specific information about how to use Alaska Grown specialty crops in unique ways.

Lessons Learned

Partnering with volunteer-based organizations can present challenges to meeting deadlines.

An unexpected outcome of this project is that the Chef involved has since gone on to create many other webisodes and features – not solely focused on specialty crops – but highlighting foods indigenous to Alaska. He continues to promote Alaska Grown specialty crops whenever appropriate.

Contact Person

Amy Pettit, Marketing Manager

Amy.Pettit@alaska.gov

907-761-3864

Additional Information

Chef Kinneens' cooking webisodes can be viewed at <http://fresh49.com/watch/> Three of the features under "Fresh AK" were partially funded with this project. They are entitled "Fresh Alaska Alaskan Root Vegetable Hash With Winter Caught King Salmon", "Fresh Alaska Alaska's Winter Harvest" and "Fresh Alaska Cooking With Coffee."

The videos and photos created by the MSFB can be viewed at www.alaskaphoto.net/

Project #7 Alaska Rhodiola Products

FINAL REPORT

Project Summary

Alaska Rhodiola Products is a not-for-profit farmer's cooperative which is dedicated to developing a sustainable agricultural industry in Alaska by growing *Rhodiola rosea*. Also known as Roseroot, Golden Root, or Arctic Root, it is a high market value herbal plant which grows naturally in arctic and high mountain areas of the North. The medicinal value is in the root, and it has been used for centuries in high mountainous areas of Asia and by northern peoples. It was intensively researched and highly developed by the Soviets in the mid 1900's to enhance physical and mental performance of their athletes and soldiers as well as to combat stress and fatigue. It is now in high demand in American and European herbal markets, and current wild harvest and small farm cultivation cannot keep up with this growing demand. *Rhodiola rosea* can take up to 20 or more years in the wild state to become commercially viable. However,

if cultivated using correct techniques, the plants can reach commercial maturity within 4-5 years. The focus of this project was to establish enough acreage to eventually support a processing facility. Our mission is to keep costs low so that growers can maximize profit, while producing a high quality, pure *Rhodiola rosea* extract for the world market.

Project Approach

Alaska Rhodiola Products (ARP) purchased pure *Rhodiola rosea* seeds and began experimenting with germination and seedling production in Anchorage in January 2009. We initially produced about 35,000 seedlings using cold stratification. Due to the success of seedling production, we formed the co-op in 2010 to facilitate distribution of the plants to interested growers. By the end of that season it was obvious that the plants grow very well in a variety of Alaskan environments. We then began promoting the project to identify more potential growers, and further developed the co-op to assist member growers in cultivation. It is the intent of the co-op to support member growers all the way to harvest. The co-op will then purchase the harvest back from the growers at fair market value and further process roots to a marketable dried state. Eventually we plan to further refine the dried roots, and develop and market Alaskan grown, Alaskan made, high quality rhodiola products for the world market.

Goals & Outcomes Achieved

The original goals of this project included initiating and supporting a network or cooperative of *Rhodiola rosea* growers in Alaska which would eventually justify the building of a processing facility.

The expected measureable outcomes included:

- Number of plants distributed to growers, with the target number being 25,000 per year. The group exceeded that goal by distributing 26760 plants in year one and 54800 plants in year two.
- Number of growers that join the cooperative with the target being 10 members. The group exceeded that goal by gaining 20 co-op members.
- Amount and quality of feedback information from new growers. By conducting site visits to each grower's location, this goal was met.
- Number of attendees at grower's workshops and post-conference evaluation results. This goal was met; 45 attendees at an initial meeting is an incredible turnout. Evaluation forms indicated enthusiasm and knowledge gained.

In 2009 ARP produced about 33,000 seedlings, the majority of which were distributed to 13 growers in 2010 - although a few trays were distributed later in 2011. In 2010 we produced over 67,000 seedlings, which have been distributed in 2011 to former and new co-op members- now totaling 20. These growers are located in Anchorage, Wasilla / Palmer (MatSu Valley), Bethel, Delta Junction, Trapper Creek, Homer, Chickaloon, Fairbanks, Nenana, and Anchor Point. Currently there are about 5 acres in cultivation. There are currently ten growers who took possession of 1,000 or more plants, and these are shown in the table below. This comprises over 80% of all seedlings produced. Several other co-op members took less than these amounts for personal experimentation, while others took plants for

distribution to other horticulturalists and public groups such as the Botanical Gardens at UAF and the Anchorage Botanical Gardens.

Table 1: Current growers with 1,000 or more plants*

Grower	2009 plants	2010 plants	Total
#1		30,000**	30,000
#2		10,000	10,000
#3	3,600	5,600	9,200
#4	160	7,700	7,860
#5	7,500		7,500
#6	6,000		6,000
#7	6,000		6,000
#8	2,000		2,000
#9	1,500	500	2,000
#10		1,000	1,000
TOTAL	26,760	54,800	81,560

*These are estimates based on approximate numbers of seedlings per trays and numbers of trays delivered, minus about 10% expected seedling loss

**This grower may have had significant seedling loss due to delayed planting and may only have 22,000 viable plants in the ground

We brought Dr. Kswesi Ampong-Nyarko to the Alaska Produce Growers Conference in Palmer in February, 2010. He is from Alberta's Crop Diversification Programme, and is a world expert in *Rhodiola rosea* cultivation. He gave a scientific presentation on his research on *Rhodiola rosea* cultivation. Following the conference, we held a *Rhodiola* growers' workshop which was very well attended (estimate 40-50 attendees).

Alaska *Rhodiola* Products created a website www.AlaskaRhodiolaProducts.com describing the details of the medicinal benefits of *Rhodiola rosea*, as well as information regarding the commercial cultivation of the plant in Alaska. It has undergone several updates to incorporate new grower's information as well as an expanding list of links, publications, and news.

The website has not proven to be a good tool for growers to communicate with the co-op and other members. We also sent out emails twice (spring and fall) to all the growers requesting information about their experiences, and have received feedback only from a few growers. We therefore resorted to site visits as well as emails and phone calls with much greater success. A current Grower's Report for 2012 is in the process of being compiled with this feedback and will be posted to the website by year's end. Our next web-based experiment to facilitate communications and networking among growers and other interested parties is via Facebook. If this also proves to be unsuccessful, we will rely on what so far seems to be the most useful: direct communication, attendance at our annual growers' workshops, and site visits. Last summer we visited growers in Homer and the MatSu Valley, and we intend to visit the Delta Junction and Fairbanks area growers next summer as well.

Beneficiaries

The beneficiaries of this project include the 10 growers who have joined ARP and began growing plants. Other beneficiaries include the 40 additional individuals who attended the meeting with Dr. Ampong-Nyarko.

Lessons Learned

Direct contact with growers is often the best methodology for communication.

Contact Person

Amy Pettit, Marketing Manager
Amy.Pettit@alaska.gov
907-761-3864

Additional Information

The ARP website is located at www.AlaskaRhodiolaProducts.com

Project #8 Wild Berry Production Guide

FINAL REPORT

Project Summary

Alaska wild blueberries and black huckleberries are in high demand. Cultivation of these specialty crops is limited; they grow best in south east Alaska where the population base is limited and farming is at a minimum. In order to expand the production of these sought after items, "*The Essential Guide for Successful Wild Berry Farming in Alaska*" was created.

Project Approach

The founders of the business "Alaska Blues" tracked their business development in order to create *The Essential Guide*. The draft manual was sent out for peer review the last quarter of 2011; the final manual

was published in the late spring/early summer of 2012. Three group presentations have been given; multiple individualized presentations have been given.

Goals & Outcomes Achieved

Alaska Blues delivered a presentation about their guide to over 150 individuals, expressly interested in expanding their specialty crop production. Viewers of the presentation indicated through post-workshop surveys that their knowledge of wild berry production and “significantly increased” and that as a result of the presentation they “felt better prepared to attempt wild berry production themselves.” Additionally Alaska Blues:

- distributed 134 handbooks, 34% above target,
- know of 17 new berry producers, slightly below the target of 25, but still considered a success,
- have had 243 unique visits to their website, with the survey gauging the usefulness of the site indicating: more than adequate information included in the publication, publication provides inspiration to consider wild berry farming, the information is easy to navigate and understand, and all survey participants indicate they would recommend the guide for future farmers.

Alaska Blues continue to share their knowledge through constant contact and consultation (at no charge) to the producers who contact them.

Beneficiaries

The beneficiaries of this project include the 150 individuals who were able to increase their knowledge of berry production by receiving the guidebook. Twenty producers stated they would expand their berry production as a result of this project.

Lessons Learned

Having a project based in remote Alaska presented challenges in travel and communication that were unforeseen. Grant recipients should source telecommunications abilities prior to applying for grant funds.

Contact Person

Amy Pettit, Marketing Manager

Amy.Pettit@alaska.gov

907-761-3864

Additional Information

<http://www.alaskablues.net/Home>

Project #9 Homer Farmers Market

FINAL REPORT

Project Summary

In order to enhance the competitiveness of Alaska Grown specialty crops at the Homer Farmers Market (HFM), new signage, advertising and a token program were created during the 2011 season.

Project Approach

A new sign was developed for the market, featuring only specialty crops in the artwork. Advertising was created with match dollars expended for the ads that included non-specialty crop items. A new market token was created to encourage sales at the market; the token was designed to be purchased as a keepsake or gift by a market-goer to be given to a non-market goer – as a way of introducing members of the community to the market. The token could be thought of as a “gift certificate” only valid for purchasing specialty crops at the Homer Farmers Market (HFM); specialty crop dollars were used in the design and creation of the token. The HFM information booth manager responsible for selling the tokens understood the rule that the tokens could only be used for the purchase of specialty crops. At the end of the 2011 market season a small percentage of the tokens had not been returned resulting in program income; because there was no deadline for turning the tokens in the market manager set that funding aside such that they could be utilized in the same way in 2012. By the end of the 2012 market season all tokens had been redeemed.

Goals & Outcomes Achieved

The market manager indicated that 2011 was the best attended (20% increase) and highest sales (10% increase) producing year for the HFM to date. The manager largely attributed these increases to this project.

Beneficiaries

Beneficiaries of this project include the 24 specialty crop producers that sell at the HFM.

Lessons Learned

Projects involving farmers markets that sell non-specialty crop items should be encouraged to include matching dollars.

Contact Person

Amy Pettit, Marketing Manager

Amy.Pettit@alaska.gov

907-761-3864

Additional Information

<http://www.homerfarmersmarket.org/Home.html>

Project #10 Alaska Teacher Scholarship Program

FINAL REPORT

Project Summary

Teachers in Alaska are excited to engage their students with new curriculum focused on Alaska Grown specialty crops, but lack the funding to do so. The purpose of the Alaska Teacher Scholarship Program (ATSP) is to expand the agriculture knowledge of both teachers and students in Alaska. The Alaska Agriculture in the Classroom (AITC) program has been widely successful at educating those it reaches. However, one common complaint is that it is hard for teachers to secure funding to implement the programs that they learn about through AITC training. The agriculture education scholarships will allow teachers to implement specialty crop education into their curriculums; this program will expand the awareness of and appreciation for Alaska specialty crop industries, leading to increased demand, sales and support. The projects implemented must focus on Alaska Grown specialty crops. No applications considering ineligible crops will be accepted and this is clearly stated in the program description, application, etc. that are released to teachers. The funded projects will only use pictures and narrative describing specialty crops. Students, teachers, and subsequently parents, will be learning solely about Alaska Grown specialty crops as a result of this project.

Project Approach

The 2012 Alaska Teacher Scholarship Program was announced in March; staff gave presentations at multiple conferences, in teacher newsletters, and held a webinar. Fourteen applications were received; 10 projects were granted. Projects include development and enhancement of school gardens, gardening classes for students, a hydroponic station for a school and others. Projects were conducted throughout 2012. The following is a brief summarization of each project.

Birchtree Charter Elementary used scholarship funds to create a school garden to teach 50 students about seed starts, composting and harvest techniques.

Chinook Elementary used scholarship funds to create a school garden, focusing on raised-bed production, soil preparation, cover crops and using compost. 73 students participated in the project.

Delta-Greely Elementary used scholarship funds to take 30 students on a tour of a U-Pick farm, harvest potatoes, and then host a "Potato Extravaganza" for students and their families. Students learned about the economic benefit of shopping locally as well as exploring unique potato recipes.

Eagle River Elementary used scholarship funds to develop their school garden curriculum. Their project focused on 91 different students learning about transplanting seedlings and recipe development. The students hosted a school-wide potluck and was featured in a newspaper article raising awareness in the community about the project.

Fairbanks Montessori used scholarship funds on a summer garden project. 50 students learned about soil testing, appropriate watering, thinning plants, plant types and characteristics such as whether you eat the roots/leaves/flowers of certain types of plants.

Pacific High School and Sitka Boys & Girls Club used scholarship funds to grow a summer garden to supplement the summer food program. 52 students learned gardening basics, composting and harvesting techniques.

Pearl Creek Elementary used scholarship funds for students to develop a school garden. 75 students learned about the life cycle of specialty crops and practiced different cooking techniques.

Ryan Middle School used scholarship funds for students to learn hydroponic vegetable production. 64 students showed a dramatic increase in awareness, with the average survey results increasing from 29% to 79% over the course of the project.

West Homer Elementary used scholarship funds to enhance their school garden. 60 students conducted soil tests and focused on scientific objectives; learning what specialty crops grow in the Alaska climate was a highlight of the project.

College-Gate Elementary used scholarship funds to go on a grocery store field trip. 22 students learned about healthy food choices, how to create healthy snacks from raw vegetables and how to tell what products are Alaska Grown versus non-Alaska Grown in the grocery store.

Goals & Outcomes Achieved

The original goal of the project was that eighty percent of the students reached through the grants would have an increased understanding of Alaska Grown specialty crops, demonstrated through pre and post tests. This was 100% achieved.

Each teacher was allowed to develop their own pre/post survey questions for their students; this allowed for flexibility due to the wide variety of age groups, teaching styles and classroom settings where projects took place. A few examples of questions asked follows.

1. Circle the products listed below that are Alaska Grown specialty crops:

Lettuce bananas broccoli pineapple potatoes peonies

2. List two things that you can grow in Alaska to eat
3. Name three Alaska Grown specialty crops
4. Name one place that your parents could buy Alaska Grown specialty crops
5. Plants need what to grow

With the 10 funded projects, 567 students were reached. Pre and post surveys indicate an average pre “passing” grade of 35% and an average post “passing” grade of 85%.

Beneficiaries

The beneficiaries of this project include the 567 students and ten teachers who participated in the grant projects. It is assumed that the specialty crop industry will also indirectly benefit from these projects as well.

Lessons Learned

With future grant projects involving teachers, more of the pre/post survey work will be standardized and use an online tool, such as survey monkey, where available. This will allow for easier tracking and data comparison across projects.

Contact Person

Amy Pettit, Marketing Manager

Amy.Pettit@alaska.gov

907-761-3864

Project #11 Farmers Market EBT Project

FINAL REPORT

Project Summary

The majority of Alaska’s specialty crop producers rely on farmers markets for sale of their products. The majority of farmers markets in Alaska are in the ‘start-up’ phase without the infrastructure or financial base to support the acceptance of food stamp benefits.

In 2011 the State of Alaska Obesity Prevention & Control Program (OPCP) implemented a Farmers Market EBT pilot project at two Alaska farmers markets allowing food stamp recipients to utilize their electronic benefits (known as the Quest card) at Alaska farmers markets for the first time. The Division intended to allow for EBT transactions at four additional farmers markets, for a total of six markets in 2012, and therefore requested \$20,000. Additional matching funds were obtained from the OPCP program which had to be spent in 2012. This allowed for a portion of the \$20,000 to be carried over to the 2013 market season.

Project Approach

In 2012 the availability of funding was announced in February; nine markets applied for funding; five ended up completing the necessary paperwork and grant requirements. Markets were required to sign a contract with the State prior to receiving any funding. A sample contract is attached as Appendix A and outlines the specific deliverables which included:

1. Have a FM-Quest Program Coordinator from the market community (*i.e.* manager, vendor, board member, community volunteer) who commits to overseeing the operations, outreach, promotions, and budgeting of the FM-Quest Program. This person must be available to meet with the FM-EBT Program Partners during the 2012 market season via phone or email. This person may or may not be the paid market staff operator of the wireless machine at the market.
2. Purchase a wireless Electronic Benefits Transfer (EBT) machine and pay all associated monthly charges to accept Alaska Quest cards. You must accept Quest cards. You may also accept debit and credit cards.
3. Hire a FM-Quest Market Staff person to operate the wireless EBT machine at the market. The Market Staff must be with the EBT machine at all times. The EBT machine must be available for Quest customers during all hours of operation at the market.
4. Provide payroll and all required payroll taxes, worker's compensation, etc. to the Market Staff through a temporary work agency.
5. Be responsible for all FM-Quest Program equipment and items, and must replace lost, stolen, or damaged items that are needed to successfully run the program throughout the 2012 market season. Tokens are essentially "cash" so must be kept secure during the market and in between market days. The State of Alaska is not responsible for lost, stolen, or misused tokens. The market is responsible for replacing the wireless EBT machine or its batteries that are lost, stolen, or damaged beyond repair. Machine malfunctions can be addressed by contacting the machine service provider.
6. Include the Quest logo and/or "we accept Quest cards" on all of the market's promotional materials, such as its website, advertisements, flyers, newsletters, and e-newsletters, as well as displaying the "We accept Quest cards" banner at market and appropriate signage at all vendors booths.
7. Comply with the regulations of the USDA SNAP (Food Stamp) and Alaska Quest Programs. The market's FM-Quest Program Coordinator is responsible for ensuring that all market vendors are informed of and comply with SNAP regulations. These regulations can be found on-line at: www.fns.usda.gov/fsp/rules/Regulations/pdfs/110106.pdf. Training materials can be found at: www.fns.usda.gov/FSP/retailers/store-training.htm. The FM-Quest Program Partners will provide training materials specifically written for Alaska farmers markets and vendors.
8. Be responsible for maintaining and submitting required logs and receipts at the end of the 2012 season. The logs will consist of numbers of Quest and debit card customers and transaction amounts, number of vendors and vendor reimbursement amounts, etc. Receipts for items purchased for the FM-Quest Program will be submitted at the end of the 2012 market season.

In 2013 the availability of funding was announced again February; 10 markets successfully applied for and received funding. Once again, markets were required to sign a contract with the State of Alaska prior to receiving any grant funds. Projects were carried out through October 15, 2013 and final reports were due to the Division in November.

Quest benefits can be utilized to purchase non-specialty crops. In order to ensure that SCBG funds were used solely to enhance specialty crops, match dollars were secured from partners from the State of Alaska (SOA) Obesity Prevention & Control Program (OPCP) as well as the State of Alaska (SOA) Division of Public Assistance (DPA). The funding amounts from each program were:

SCBG Funds:	\$20,000
SOA OPCP:	\$40,000
SOA DPA:	\$25,000

Goals & Outcomes Achieved

The original goal of this project was to increase the number of specialty crop producers in Alaska who benefit from the sale of their products to Quest card recipients; this was 100% achieved. The project supported five farmers markets in 2012 and 10 markets in 2013. The number of specialty crop producers that accepted Quest dollars increased from 50 in 2012 to 103 in 2013.

Beneficiaries

The beneficiaries of this project include both the specialty crop producers and the Quest clients who were a part of the 5 farmers markets in 2011 and 10 markets in 2012.

Lessons Learned

Farmers market EBT projects are most successful as long-term, multi-year efforts. Partnering with organizations such as Cooperative Extension Service to teach about food preservation and specialty crop recipes is recommended.

Contact Person

Amy Pettit, Marketing Manager

Amy.Pettit@alaska.gov

907-761-3864

Project #12 Genetic Identification of Botrytis Gray Mold Species in Alaska

FINAL REPORT

Project Summary

Gray mold caused by *Botrytis* species, is the most important disease of peonies in Alaska. Even with known management systems, growers in Alaska have reported difficulty in controlling *Botrytis* on peonies. There are a number of factors that could contribute to this situation: improper/inadequate sanitation or fungicide applications, as well as a lack of understanding of the disease, its distribution and seasonality in Alaska. The purpose of this project was to conduct further research on the presence of *Botrytis* in Alaska in order to help prepare growers to prevent and treat for it.

Project Approach

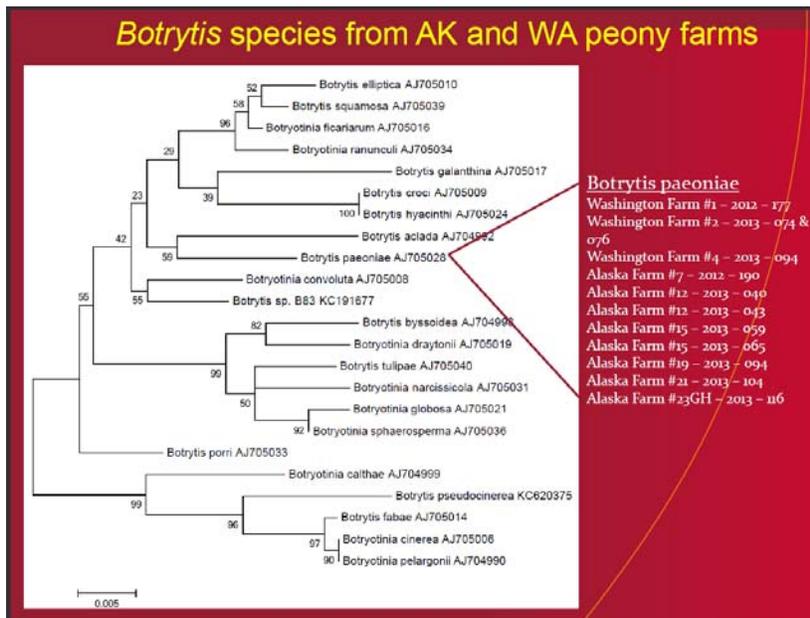
Dr. Chastagner visited the state and collected samples from 25 farms between July 14 and 24, spending 3 days in the Interior region, 3 days in the Mat-Su area, 2 days in the Kenai area, and 2 days in Homer. Dr. Chastagner isolated samples to obtain cultures of fungal pathogens associated with specific symptoms which were then identified using various standard laboratory and molecular approaches. Dr. Chastagner compared his results to an international database of diseases to create a phylogenetic map.

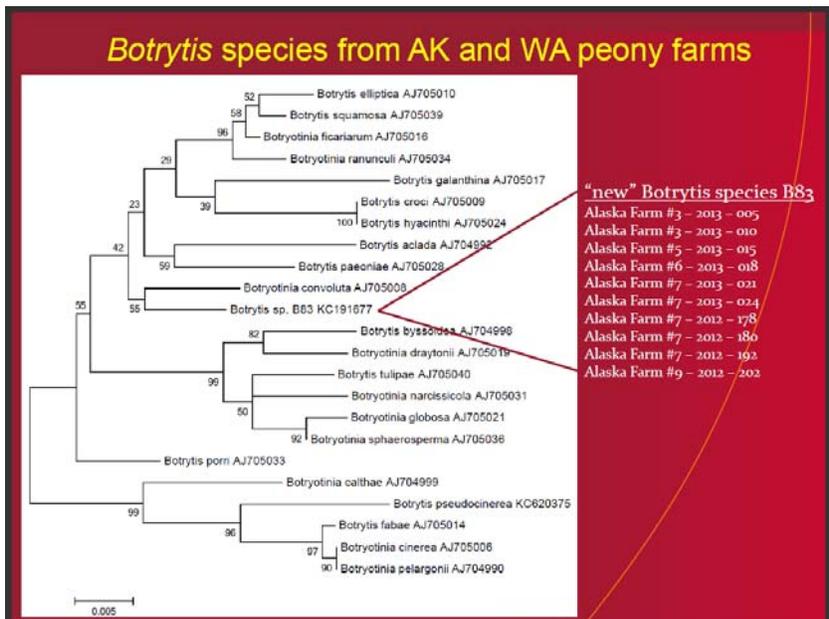
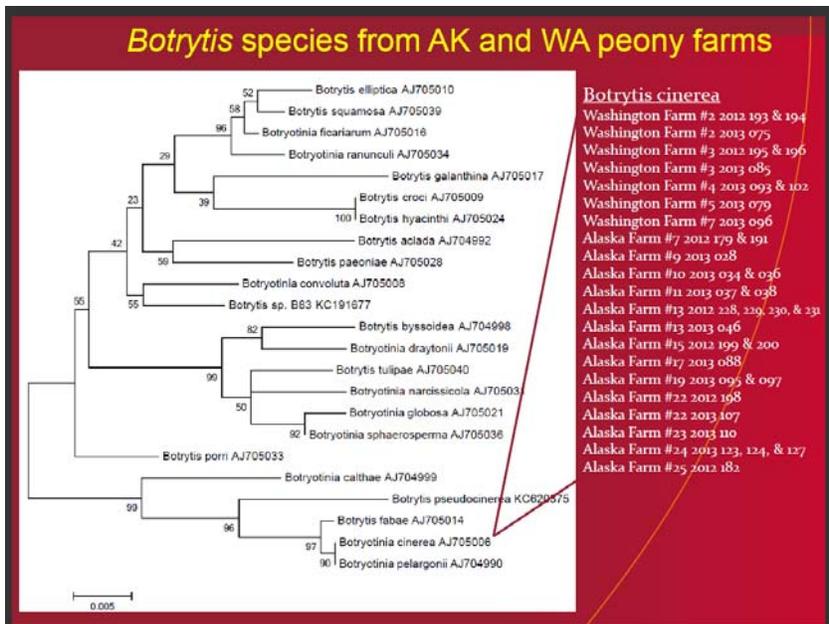
Dr. Chastagner also screened a set of samples with suspected virus-infected material for viruses. Few early season samples were collected due to unexpectedly and unusually dry weather conditions in June and July which resulted in almost no botrytis during the early part of the season. However, the results of the project yielded more data than originally anticipated due to the 50% increase in the number of participating farms (25 versus the original 16) and Dr. Chastagner's interest and sampling for other fungal- and virus-related diseases.

Goals & Outcomes Achieved

The original goal of this project was the creation of a phylogenetic map that would clarify the identity of the Botrytis gray mold species and show their distribution and diversity across Alaska; this was 100% achieved, with the additional unexpected result that one of the mold species identified was previously unknown in the international database of disease.

The below three phylogenetic maps were shared at the Annual Alaska Peony Growers Association annual meeting on Friday January 31, 2014. One hundred peony growers were in attendance.





In addition to the mold mapping, Dr. Chastanger also tested samples for virus. The next slide shows the 16 virus that samples were tested for. Only Tobacco Rattle Virus was found.

Samples from these plants were tested for the presence of 16 viruses

Peony samples were tested for the following viruses	
Alfalfa mosaic virus	AMV
Alternanthera mosaic virus/Papaya mosaic virus	AtMV/PapMV
Arabidopsis mosaic virus	ArMV
Broad bean wilt virus	BBWV-1,2
Cucumber mosaic virus	CMV
Impatiens necrotic spot virus	INSV
Prunus necrotic ringspot virus	PNRSV
Ribgrass mosaic virus	RMV
Tobacco mosaic virus	TMV
Tobacco ringspot virus (Peony mosaic virus)	TRSV
Tobacco streak virus	TSV
Tomato aspermy virus	TAV
Tomato mosaic virus	ToMV
Tomato ringspot virus	ToRSV
Tomato spotted wilt virus	TSWV
Potyvirus Group Test	POTY
Tobacco rattle virus Specific PCR Test	TRV sp (PCR)

The data that resulted from this project allows the peony growers to better focus their disease management strategies, now that they know exactly what their plants are infected with.

One additional unexpected outcome of this project is that Dr. Chastagner is now working directly with several of the growers to help resolve an unidentified blight that results in dry, brown crispy leaves about mid-season. He is the first pathologist to see first-hand the effects of this unusual blight and to start an effort to identify its cause.

Beneficiaries

The 25 growers who participated in his visit will undoubtedly benefit the most from Dr. Chastagner's visit since he was able to directly address their specific concerns, but they are not the only beneficiaries of his visit. His visits spurred several spontaneous and not-so-spontaneous sort of "farm tours" open to other growers. Lydia Clayton (CES Kenai) arranged his visit to be an in-field peony pathology workshop, and Pat Holloway held an informal gathering at the Georgian Botanical Gardens with over 50 people in attendance.

These gatherings thus increased the benefit to numerous non-participating growers and potential growers. At each farm, he was able to increase the growers' awareness of the presence of disease and the importance of sanitation, and he helped differentiate between disease and environmental effects (such as the lack of or the presence of excess water and herbicide overspray).

The 100 growers present at the APGA meeting where Dr. Chastagner's results were delivered will benefit from the new knowledge.

Lessons Learned

As a result of the positive outcomes of this collaboration with Dr. Chastagner, the project manager and lead horticulturist at University of Alaska Fairbanks are considering a future project proposal under a multi-state heading between Alaska and Washington State to further the research.

Contact Person

Amy Pettit, Marketing Manager

Amy.Pettit@alaska.gov

907-761-3864

Additional Information

The full presentation is available on both the APGA website and the Division of Agriculture website.

www.alaskapeonies.org

http://dnr.alaska.gov/ag/ag_marketingresearchdevelopment.htm

Project #13 Potato Variety Trials

FINAL REPORT

Project Summary

Alaska potato growers desire a yellow flesh potato variety that does not succumb to the various problems found with the current standard yellow flesh variety, Yukon Gold. Yukon Gold is prone to oversize and growth cracking and the skin does not set well which allows for infection by Fusarium in storage. These problems can result in up to 50% grade out. Yukon Gold is very susceptible to foliar diseases which reduce yield. Other yellow flesh varieties available to Alaska's growers have similar problems. Red flesh, blue flesh and various combinations of flesh color found in some selections are desirable in some markets. These unique potatoes have commanded high market prices and are sought after by small growers.

Alaska has unique growing conditions that do not allow for direct fit of yield and performance criteria from other areas of the U.S. Trialing potato variety performance in Alaska will help demonstrate the qualities or lack of desired traits when observed in Alaska's climate. Colored flesh potatoes have an increasing market share especially with the farmers markets. This variety trial identified the selections worthy of further evaluation in Alaska.

Project Approach

The potato variety trial was planted on June 3, 2013. The planting was comprised of 20 feet of row of each of 28 named varieties and 100 advanced selections obtained from the colored flesh breeding project. Approximately 80% of the plants emerged by June 25th. Weed control and irrigation were initiated June 26th. The field was monitored and irrigated weekly. Hilling occurred on July 12th.

The field was scouted on a bi-weekly basis for pests and diseases. Flowering was observed on a few of the named varieties as well as some of the colored flesh selections July 25th. Wireworms were observed in seed pieces at this time. Knotweed, tansy ragwort, shepherds purse, narrow leaf hawksbeard and lambs quarters were observed in late July but the low populations did not require treatment. Several lines were observed to be infected with Potato Virus X (PVX) in mid July. Plants infected with Rhizoctonia were

also noted at this time. Several of the numbered lines were found to be infected by Early Blight in mid August. No control treatments were deemed necessary.

Vines were removed utilizing a vine beater on September 9th, 90 days after planting, to allow for skin set and enabling easier harvest. The field was dug on September 25th. Evaluations were performed in the morning and a field day open to the public occurred in the afternoon. Harvest and evaluations were difficult due to the excessive rain events that occurred during the first three weeks of September.

The named varieties with the exception of the variety Envol have been grown and trialed previously in Alaska. The Alaska potato growers are looking for a better russet skinned variety, a better red skinned variety and a better yellow flesh variety. Presently the white skinned varieties, Shepody, CalWhite and MaineStay are performing adequately. The white skinned variety Envol is from Quebec Canada and is touted as earlier than the varieties Jemseg and Superior. Hills dug and observed during the growing season indicated that Envol initiated tubers a few days earlier than the check varieties but yield at harvest was comparable in weight but had greater tuber numbers per plant. Envol tubers were one to two ounces smaller than the check varieties. A more complete evaluation of this variety's yield potential and any disease resistances should be further studied.

The colored flesh numbered lines are materials obtained from the USDA colored flesh breeding program in Pullman, WA. Funding for this project was discontinued when the Agriculture Research Service pulled out of Alaska in 2013. Four thousand genetically unique tubers were sent annually over a four year period. Selections from these stocks were carried over, propagated and evaluated for eye appeal and unique qualities.

During the four years of observation, 150 lines had been selected for continued trials. The materials selected included yellow, red, pink and blue flesh as well as various skin color permutations. Tuber shape, eye depth, tuber number and yield were the major selection criteria. Of the 130 lines evaluated in the 2013 trial at the University of Alaska Trunk Road Experimental Farm, 16 were selected to forward to the original breeder for further evaluation.

The field day was announced and promoted to the potato growers so that they could participate in the evaluations. The tubers were dug and allowed to remain in the labeled rows throughout the day. Three seed growers and one tablestock grower participated. The materials identified for further testing were collected and shipped to Pullman. Several of the selections are being maintained as tissue cultures at the Alaska Plant Materials Center to provide planting stock for the seed growers continued evaluations.

Goals & Outcomes Achieved

The original goal of this project was for potato growers to gain access to new, Alaska-specific research about colored flesh potatoes suitable for field production. It was expected that twenty potato growers would participate in the field day and presentations. Four growers participated in the field day; the presentation is scheduled for February. A newsletter article will be distributed during the first quarter of 2014. It should be noted that in September, Alaska experienced 19 straight days of rain which delayed potato harvest activities for all commercial growers. They were under extreme pressure to get the

potatoes out of the ground before freeze-up occurred. This limited the participation in the field day due to the inability to delay the already postponed harvest.

Beneficiaries

The beneficiaries of this project include the existing and potential potato growers in Alaska. Four producers benefited from direct involvement in the field day. Attendance at the annual Produce Growers conference where the data will be presented typically numbers 50 specialty crop producers. Over 600 people receive the Division e-newsletter that will include an article about the results.

Lessons Learned

In the future, the agronomist will video tape the field day component to share with growers who are unable to participate.

Contact Person

Amy Pettit, Marketing Manager

Amy.Pettit@alaska.gov

907-761-3864

February 5, 2014

Spenard Farmers Market

Anchorage, AK

RE: Alaska Farmers' Market-Quest Card Program

Contract Number:

PVN:

Dear Jae;

The Department of Natural Resources, Division of Agriculture, intends to award a contract to you in accordance with your application and the terms of this agreement:

Scope of Work:

In summary you agree to:

9. Have a FM-Quest Program Coordinator from the market community (*i.e.* manager, vendor, board member, community volunteer) who commits to overseeing the operations, outreach, promotions, and budgeting of the FM-Quest Program. This person must be available to meet with the FM-EBT Program Partners during the 2012 market season via phone or email. This person may or may not be the paid market staff operator of the wireless machine at the market.
10. Purchase a wireless Electronic Benefits Transfer (EBT) machine and pay all associated monthly charges to accept Alaska Quest cards. You must accept Quest cards. You may also accept debit and credit cards.
11. Hire a FM-Quest Market Staff person to operate the wireless EBT machine at the market. The Market Staff must be with the EBT machine at all times. The EBT machine must be available for Quest customers during all hours of operation at the market.
12. Provide payroll and all required payroll taxes, worker's compensation, etc. to the Market Staff through a temporary work agency.
13. Be responsible for all FM-Quest Program equipment and items, and must replace lost, stolen, or damaged items that are needed to successfully run the program throughout the 2012 market season. Tokens are essentially "cash" so must be kept secure during the market and in between market days. The State of Alaska is not responsible for lost, stolen, or misused tokens. The market is responsible for replacing the wireless EBT machine or its batteries that are lost, stolen, or damaged beyond repair. Machine malfunctions can be addressed by contacting the machine service provider.
14. Include the Quest logo and/or "we accept Quest cards" on all of the market's promotional materials, such as its website, advertisements, flyers, newsletters, and e-newsletters, as well as displaying the "We accept Quest cards" banner at market and appropriate signage at all vendors booths.
15. Comply with the regulations of the USDA SNAP (Food Stamp) and Alaska Quest Programs. The market's FM-Quest Program Coordinator is responsible for ensuring that all market vendors are informed of and comply with SNAP regulations. These regulations can be found on-line at: www.fns.usda.gov/fsp/rules/Regulations/pdfs/110106.pdf. Training materials can be found at: www.fns.usda.gov/FSP/retailers/store-training.htm. The FM-Quest Program Partners will provide training materials specifically written for Alaska farmers markets and vendors.
16. Be responsible for maintaining and submitting required logs and receipts at the end of the 2012 season. The logs will consist of numbers of Quest and debit card customers and transaction amounts, number of vendors and vendor reimbursement amounts, etc. Receipts for items purchased for the FM-Quest Program will be submitted at the end of the 2012 market season.

Payment terms and conditions:

1. The contractor will be paid a sum not to exceed \$7200.00. When signatures have been received by you, Amy Pettit and the DNR Procurement Officer, the initial 75% payment of \$5400.00 will be executed.
2. Your final 25% payment of \$1800.00 will be made upon satisfactory completion of the project and receipt of the final required logs and receipts by Diane Peck.
3. If you concur with the terms of this agreement, and all information is accurate, please acknowledge your acceptance below, keep a copy for your records, and mail or fax this agreement to the Division of Agriculture.

If you have any questions, comments or concerns regarding this contract, please contact project manager Diane Peck at 907-269-8447 or Diane.Peck@alaska.gov

Sincerely,

Amy Pettit

cc: Diane Peck, Project Manager

Agreed:

_____ Date: _____
Jae Shin

_____ Date: _____
Marlys Hagen
DNR Procurement Officer