



Division of Agriculture
Alaska Department of Natural Resources

**CHALLENGES AND OPPORTUNITIES
FOR THE FUTURE
WHILE MEETING THE NEEDS OF TODAY**

**** defining a strategic planning process for the ADOA ****

November 13, 2008





Division of Agriculture
Alaska Department of Natural Resources

DATE

Dear Alaskans;

PLACE HOLDER FOR LETTER FROM THE DIRECTOR

DRAFT

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Alaska Division of Agriculture

The Long Term Plan for Agriculture

November 13, 2008

Introduction

The agricultural industry of Alaska contributes to the economy and well-being of the State. To continue to do so, agriculture must be a healthy and sustainable renewable resource industry. The Alaska Division of Agriculture (ADOA) understands that its mission is not to guide the agriculture industry, but to assist and promote. In this plan, the ADOA has sought direction from industry to address its concerns and ongoing issues.

When considering the contents of this review and proposed planning process, readers should keep in mind that the ADOA believes that through open communication and education, producers will prosper and the citizens of Alaska will enjoy the benefits that Alaskan Agriculture offers.

Mission Statement

The mission of the Alaska Division of Agriculture is to promote and encourage the development of an agricultural industry in Alaska that is stable and profitable.

Vision Statement

The vision of the Alaska Division of Agriculture is to promote an economically stable agricultural industry for Alaska that can enhance the quality of life for its people, create sustainability of its communities, and encourage new business development opportunities for all Alaskans.

Background - Agriculture

Agriculture has played a role in Alaska over the past century. Prior to statehood, the people of Alaska realized the value of agriculture. This is noted with the state seal, originally designed in 1910, which portrays a farmer, his horse, and three shocks of wheat. Today, much of the general population does not understand the significance of agriculture, as the majority of the population is two or three generations removed from the farm. It is critical that we educate the citizens of Alaska, most importantly – the young people, its importance and the value of being self sustainable, if Alaska is to maintain its agriculture industry.

Alaska's current policy reflects the boom-and-bust history of the State and territory that has often sought immediate profit at the expense of long-term stability. This does not fully reflect or recognize Alaska's potential for a diversified agricultural industry, the characteristics or the need for long-term stability. Numerous agricultural development projects, plans, analyses, reports, and studies have been undertaken, and issues and proposals have been debated. The industry and the State must now come together and create a plan that defines the role of the ADOA and in doing so assists the industry.

Alaska must continue to embrace the challenges and look for opportunities for the future. It must continue to incorporate good agriculture principles and good management practices, including food safety and security.

At present, factors that impact the industry are in the midst of change. Some of this dynamic change is positive as evidenced by several factors:

- The emergence of niche markets;
- Need for native plants used for revegetation;
- The increase in demand for “local grown” and community-based agriculture; and
- The desire for healthier lifestyles.

And some are negative:

- The lack of recognition of agriculture as a sustainable industry;
- The need for better linkages with land grant research, education and outreach;
- The need to ensure regulations and implementation allow the producer to continue to fill present markets as well as encourage new markets;
- The need for advocacy from state, university, federal, industry, local interest groups, and municipal and local governments; and
- The need for ongoing partnerships amongst the industry, local, state and federal agencies to move programs and services forward.

The ADOA must work in cooperation with the Board of Agriculture and Conservation (BAC), and improve communication among the University of Alaska, industry representatives, the United States Department of Agriculture (USDA), local governments and communities, and organizations across the State to promote the development of a healthy and sustainable agricultural resource industry in Alaska. Alaska agriculture must be revitalized and become a stable industry that can then realize its potential in contributing to Alaska and maximizing the value of the land and its products for the citizens of Alaska.

Purpose of a Strategic Plan

A comprehensive and strategic understanding of the Alaskan agricultural industry is needed so that the State can direct its efforts and resources to best serve the industry, and in turn the citizens of Alaska. This review and strategic planning process is an attempt to understand the dynamics of the industry and to focus on meeting the needs of the industry both today and in the future. This strategic planning process will provide the Alaska Department of Natural Resources (ADNR) and the ADOA with a path towards identifying goals for the long-term growth and viability of the agricultural industry in Alaska and defines the role of the ADOA in accomplishing objectives for meeting these goals. The ADNR recognizes that a plan with goals and specific objectives will provide a sense of stability that is needed for the industry to make informed decisions and to clearly understand the mission of the ADOA. Further, this plan will be an evolving effort, implemented by the ADOA. An annual joint review of the plan by ADOA, the BAC and industry will be presented by the ADOA to the Commissioner of the ADNR and will be available to the Governor and the Legislature. Input and involvement from both industry and agency will contribute to the overall success of creating and supporting an economically stable agricultural industry for Alaska.

This strategic plan was created to provide a tool to assist both ADOA and the industry. The document has been developed in thanks to interactive participation of public and private participants - producers, processors, agencies, educators, the general public, and legislators – and builds upon past efforts of the ADOA. Some specific points need to be kept in mind:

- The agricultural industry must receive assurance that it is recognized and supported in its effort to develop and grow;
- It is critical that the core of Alaska's agricultural industry that is currently in place and/or its successful transition be supported, and be allowed to develop new priority programs/ initiatives;
- ADOA must work with industry and identify and creatively resolve issues that impede the growth of a successful agriculture industry;
- The ADOA will continue to provide services and programs needed to support and promote the agricultural industry;

- Strengths, underutilized abilities, and limited resources must be identified so that they may be enhanced and strengthened by additional investment, either State, Federal, or private; and
- ADOA and the agriculture industry must expand its base to include both non-agriculture sectors and non traditional agriculture regions of the state by creating partnerships; inclusionary programs for cooperative ventures and rural development/education projects.

A major part of this process requires that the ADOA initiate and support an engagement process that involves all aspects of Alaska agriculture. The proposed goals and objectives of this process reflect the following ten areas with which the ADOA has strategic programmatic linkages and where ADOA can assist the agricultural industry.

1. Agricultural development and marketing
2. Board of Agriculture and Conservation
3. Plant Material Center
4. Agriculture Revolving Loan Fund
5. Sustainable agricultural resources and services
6. Outreach, education and recruiting
7. Planning
8. Research
9. Energy
10. Infrastructure

This proposed review and plan provides comprehensive direction to allow both the agricultural industry and the State to forge a solid relationship so the industry can grow and prosper. The plan must be realistic and achievable to be successful. It must be based on a thorough understanding of the industry, thus requiring the industry's direct participation in its review, preparation and overall support.

Table 1 provides a list of individuals who participated in the development of this long term. These participants, in a joint effort with the ADOA, identified the proposed Goals and Objectives that comprehensively address issues relating to the Alaska agricultural industry.

<u>Name</u>	<u>Organization</u>
Dick LeFebvre	ADNR
Jeff Werner	FFA/UAF
Don Lintelman	Northern Lights Dairy
Ben VanderWeele	Agriculture Producer
Allen Mitchell	UAF
Chad Padgett	USDA
Bill Allen	City of Palmer
Bernie Karl	Business Owner
Tony Nakazawa	UAF
Carol Lewis	UAF
Franci Havemeister	ADOA
Rep. Mark Neuman	AK Legislature
Bryce Wrigley	AK Farm Bureau
Ed Arobio	ADOA Northern Region
Charlie Knight	ADOA Northern Region
Ruby Hollembaek	Agricultural Producer
Stoney Wright	ADOA PMC
Douglas Warner	ADOA
Al Poindexter	BAC
Victoria Naegle	Agriculture in the Classroom
Steve Brown	UAF, Cooperative Extension
Lee Hecimovich	UAF, 4-H, Cooperative Ext.
John Schirack	BAC
Tom Paragi	ADF&G
PMC Advisory Board	
PMC Staff	
Division of Agriculture Staff	
Board of Agriculture & Conservation	

Proposed Goals 1 through 9 and Related Objectives

Proposed Goal 1. Agricultural development and marketing – The ADOA will continue to support and assist the producer in increasing market share.
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Situation: The short growing season for traditional Alaskan agriculture has resulted in long-standing production and marketing challenges. The division will continue to work cooperatively with producers and growers to increase their market share in Alaska.

Objective 1.1: The ADOA will support and assist farmers' markets in increasing their market share with the establishment of a year-round market for *Alaska Grown* products.

Objective 1.2: The ADOA will work with farmers and producers to help form cooperatives or other appropriate business structures to support the sale of Alaskan agricultural products.

Objective 1.3: The ADOA will include in its planning process the potential for sustainable production and marketing of red meat in Alaska.

Objective 1.4: The ADOA will improve communication among the industry, ADOA and other federal and state agencies. The ADOA will work with the industry to improve communication with consumers. ADOA recognizes that good communication among all of the above plays a crucial role in the success of agriculture in Alaska. ADOA will explore the opportunity of utilizing alternative communication methods, via other farm cooperatives, etc.

Objective 1.5: The ADOA will build a strong base for Alaskan agriculture through partnerships, promotion, advocacy and communication. It will establish and cultivate champions and advocates of Alaskan agriculture, including individuals, organizations, government entities, and user groups.

Objective 1.6: The ADOA will work with other State of Alaska departments to support *Alaska Grown* by implementing a "buy Alaska policy" where feasible, and to take actions that ensure conformity with existing laws and regulations.

Objective 1.6: Additional objectives for Proposed Goal 1:

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Proposed Goal 2. Board of Agriculture and Conservation – The BAC will work with ADOA in a comprehensive manner to support the growth and development of Alaskan agriculture.

Situation: The ADOA reports to the commissioner of the ADNR. The Governor appoints the members of the Board of Agriculture (BAC). The BAC consists of 7 members – 1 with general business or financial experience; 1 member of a statewide agricultural promotion organization; 1 member of a soil and water conservation district who is also engaged in commercial production agriculture; 4 members engaged in commercial production agriculture, each representing a different agricultural enterprise from the others, such as: livestock production, dairy, vegetable production, grain production, horticultural production, and greenhouse and hydroponic production. The BAC, will work within their statutory authority, to promote the growth and development of Alaska Agriculture.

Objective 2.1: The BAC will continue to support the vision for Alaskan agriculture through input and personal expertise.

Objective 2.2: The BAC supports continued funding of ADOA with general funds.

Objective 2.3: The BAC requests that major issues and concerns affecting the agriculture industry and identified by the BAC be addressed by the Commissioner of DNR.

Objective 2.4: BAC recommendations for policy, statutory, and /or regulatory changes will be considered by ADOA/DNR.

Objective 2.5: The BAC/ADOA will work with industry to stabilize Mt. McKinley Meat and Sausage (MMM&S) until the private sector is able to assume responsibility.

Objective 2.6: The BAC/ADOA will explore opportunities to promote a Junior Farmer Loan Program, providing low interest loans to high school age children interested in exploring an agriculture endeavor.

Objective 2.7 ADOA/BAC will increase the agricultural land base, through identification of designated agricultural land and increased sales.

Objective 2.8: Additional objectives for Proposed Goal 2: _____

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Proposed Goal 3. The Plant Material Center – ADOA will facilitate the development and sustainability of appropriate plant materials for Alaskan agriculture.

Situation: The Alaska Plant Materials Center (PMC) is the primary source of information in Alaska for seed production, harvest, and cleaning. The PMC is also the primary source of information on revegetation and seeding mixes used by the primary seed purchasers. However, the primary purpose of the PMC is the production of high quality, disease tested seed stocks to be used in production agriculture in Alaska. (See appendix A)

Objective 3.1: The PMC will reflect and anticipate the needs in Alaska to protect, support, enhance and expand Alaskan agriculture in terms of: appropriate plant materials for crop production; soil and water conservation programs and projects; noxious weed and invasive species, and increased activity in demonstration projects and education/outreach. Furthermore, the PMC will work to enhance its ties to the National Resources Conservation Service (NRCS) and the Soil and Water Conservation Districts (SWCDs).

Objective 3.2: The ADOA, through the PMC will work cooperatively with other agencies, as climate changes occur, to address new crops and conservation issues.

Objective 3.3: The PMC must not lose sight of the fact that it is a crop production facility responsible for the production of high quality, disease tested, low generation crop seed. This material is the base for the production of Alaskan developed varieties. Crop production in Alaska depends on disease free, high quality seed.

Objective 3.4: Nearly all development projects require some form of revegetation following surface disturbance. The primary users of seed in Alaska are the Alaska Department of Transportation and Public Facilities, the Department of Defense, mining companies, and the oil industry. The use of native species in restoration should be encouraged and user's findings shared so all Alaska programs can benefit. The PMC will enhance its abilities to act as the state's land resources conservation laboratory.

Objective 3.5: The Plant Materials Center must remain ever vigilant to industry/producer needs and changes in technology or policy directions and remain adaptable to the new conditions and economic environment. The PMC is the research and development arm of the Division of Agriculture; it is an economic development proponent and a new crop source for Alaska Agricultural producers. This requires stable and appropriate funding.

Objective 3.6: Additional objectives for Proposed Goal 3: _____

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Proposed Goal 4. The Agricultural Revolving Loan Fund (ARLF) - The Agriculture Revolving Loan Fund is a critical component to the viability of Alaska agriculture, overseen by the Board of Agriculture & Conservation (BAC) and will be supported by ADOA.

Situation: The health of the Agricultural Revolving Loan Fund (ARLF) remains a critical component in Alaskan agriculture. This program offers low interest loans to the Alaskan agricultural industry. The ARLF within the ADOA has played and will continue to play an important role in creating a profitable and growing agricultural industry.

Objective 4.1: It is imperative to protect the health of the ARLF. The ADOA administrative staffing budget should not be drawn from this fund but funded through general funds.

Objective 4.2: The ARLF will work with government agency lenders and guarantors in an effort promote the growth of the agricultural industry. In forming these partnerships ADOA is confident it will further the development of the agricultural industry.

Objective 4.3: Long-term financial planning and analysis will be incorporated into management decision-making by establishing performance indicators.

Objective 4.4: The ADOA and the agricultural industry support the recapitalization of the ARLF.

Objective 4.5: The ARLF will increase its marketing presence at agricultural functions and promote the use of its loan programs.

Objective 4.6: Additional objectives for Proposed Goal 4:

Proposed Goal 5. Sustainable agricultural resources and services – The ADOA will assist the Agricultural industry and continue to provide needed resources and services, which include inspection, regulatory requirements, and food safety and security.

Situation: ADOA inspection responsibilities and regulatory roles are essential for Alaska agriculture to grow and prosper. ADOA will continue to provide the industry with Inspection Services that are required to move product into commerce and work with industry to meet new requirements.

Objective 5.1: ADOA is aware that all laws and regulations related to preserving and/or enhancing farming must be carefully reviewed. ADOA will seek opportunities for input on new regulations affecting the agricultural industry, prior to agency review. ADOA will keep industry informed of possible regulation changes.

Objective 5.2: ADOA will work with the Division of Mining Land & Water, SWCD's and NRCS to review state land for possible agricultural use.

Objective 5.3: ADOA will work to improve state grazing lease renewals, and well as work within regulation to provide terms that encourage continuity and livestock production.

Objective 5.4: ADOA will work with other federal and state agencies to facilitate the import and export of plants and animals.

Objective 5.5: ADOA will inform the Agricultural community of area plan reviews that have the potential to affect agriculture and/or agricultural land sales.

Objective 5.6: Additional objectives for Proposed Goal 5:

Proposed Goal 6. Outreach, education and recruiting –The ADOA will improve or establish outreach, education and recruiting initiatives to serve the agricultural industry of Alaska.

Situation: Agriculture is a critical industry in Alaska. A strong Alaska agricultural industry is vital for our state and national security. The growth of Alaskan agriculture growth requires ongoing education of agricultural producers and other industry professionals, potential new producers and consumers.

Objective 6.1: The ADOA will help coordinate and focus efforts to raise awareness of the importance of Alaska agriculture to Alaska consumers, including issues of food security, sustainability, health benefits of locally grown foods, invasive species management and farmland protection.

Objective 6.2: The ADOA, to the extent it can, will provide and support processes, infrastructure and mechanisms that enable current Alaska farmers and processors to operate profitable businesses or organizations, and encourage Alaska’s future farmers so the state is prepared for anticipated and needed growth in the industry.

Objective 6.3: The ADOA will focus on educational partnerships to promote Alaska agriculture, explore internships at working farms, explore workforce training programs and identify and create new educational partnerships to promote Alaska agriculture.

Objective 6.4: The ADOA will partner with FFA and 4-H programs to help develop tomorrow’s agricultural leaders. ADOA will partner with the State of Alaska Department of Education, Division of Career and Technical Education and Alaska’s Agriculture in the Classroom and Farm to School programs to increase appreciation for agriculture in the general K-12 population, most of which has no connection to agriculture.

Objective 6.5: Additional objectives for Proposed Goal 6:

Proposed Goal 7. Planning – The ADOA’s future plans for a changing Alaskan agriculture will encourage best practices.

Situation: Impediments to the growth of Alaska agriculture include: insufficient low-cost energy supplies; lack of appropriate transportation for inter- and intra-state movement of products; lack of accessible land that has been identified as agricultural land; and insufficient appropriate protection to maintain or sustain lands in production. Efforts that address each of these issues must consider not only the future growth and development of Alaska agriculture as a whole, but consider their effects on the other issues as well.

Objective 7.1: Sustained yield agriculture has a future and rightful place in land use planning in Alaska. The ADOA will create a plan that incorporates a best management practice approach for the preservation of land having agricultural potential, conservation of soils and surface resources existing on those lands.

Objective 7.2: ADOA will encourage the agricultural community to develop State Conservation Plans and/or Soil & Water Conservation Plans that incorporate a best practice approach, and protect agricultural land under the Right to Farm legislation.

Objective 7.3: The ADOA will review existing legislation and regulations to determine applications to agricultural land that allow such land to remain in agricultural production; such rules include taxation and regulations to protect agricultural lands, and regulations regarding waste disposal and application.

Objective 7.4: Additional objectives for Proposed Goal 7:

Proposed Goal 8. Research – The ADOA will ensure that stakeholders in the Alaska agricultural industry are made aware of existing and emerging technology and research in natural resources and agriculture.

Situation: Changing technology offers new opportunities for Alaska agriculture to seize opportunities and/or address operational efficiency-related concerns. ADOA will seek opportunities to apply new research and emerging technologies to agriculture in Alaska.

Objective 8.1: The expansion of agriculture in Alaska will require the awareness and ability to implement the latest technology and research applicable to Alaska agriculture. The ADOA will work with the agricultural industry, state and federal agencies, the University and others to ensure this process.

Objective 8.2: The ADOA will look at the potential of a closer affiliation between the PMC, University of Alaska, Agriculture, Forestry, and Experiment Station (AFES), and Agriculture Research Service (ARS) as well other cooperators.

Objective 8.3: Additional objectives for Proposed Goal 8:

Proposed Goal 9. Energy – The ADOA will seek opportunities to partner with others to establish energy or support initiatives for Alaska and Alaskan agriculture.

Situation: Energy, or the cost of energy, has always been an issue related to agriculture as well as other resource development. Federal and State legislation recognizes the enormity of the issue of rising energy costs. Energy costs are also driving energy demonstrations and innovation initiatives across the State. Wind, biomass, bio-fuel, geothermal sources, hydropower, energy conservation, and other alternative energy resources, can all play a role in the Alaskan agricultural industry.

Objective 9.1: The ADOA will support meaningful discussions on energy issues, technology, and implementation related to enhancing the viability, marketability, and profitability of Alaska agriculture.

Objective 9.2: ADOA supports the development of an alternative fuel industry, through tax credits, infrastructure, direct grants and low interest loans.

Objective 9.3: ADOA supports the production of our natural resources and by products, such as urea, which are critical to the expansion of the agricultural industry.

Objective 9.4: Additional objectives for Proposed Goal 9:

**Proposed Goal 10. Infrastructure – Infrastructure needs as determined by Industry.
These needs are not listed in preferential order, but have been put forward by the industry.**

Situation: Alaska is lacking the infrastructure needed to see substantial agricultural growth.

Objective 10.1 -Infrastructure needs:

- Local meat processing capabilities are needed state wide.
- A stable dairy processing facility must be developed in the Mat-Su Valley.
- Manufacturing plant for urea, this will sell to Alaska farmers as well as an international market.
- Development of a phosphate mine.
- A vegetable processing plant to extend the market season for locally grown produce. (Mat-Su borough has done this study)
- Improved loading and unloading facilities for rail shipments
- Rail spur to Delta to carry fertilizers to farms and grain to markets.
- Formation of marketing cooperatives to insure consistent quality and supply, and develop new markets in the state.
- Access to natural gas for processing Alaskan products
- Production Credits Program for producers meeting certain levels of production targets.
- Increase accessibility of USDA inspections coupled with the ability to sell locally in diverse areas of the state.
- Develop Nenana agricultural area and other agricultural areas

Objective 10.2: Additional objectives for Proposed Goal 10:

Appendix A: Alaska Plant Materials Center Strategic Plan

Vision: The Alaska Plant Materials Center (PMC) serves Alaska’s needs in the production foundation class seed of Alaska native plants and traditional crops. The PMC provides leadership, innovation, and initiative in Alaska for revegetation, erosion control and commercial crop and plant production in Alaska. The PMC has created and continues to modernize a high quality facility for seed production, harvest, and cleaning.

Mission: The broad mission of the Plant Materials Program throughout the United States is to “develop and transfer state-of-the-art plant science technology to meet customer and resource needs.” The Alaska Plant Materials Center:

- Focuses on using plants as a natural way to solve conservation issues and re-establish ecosystem function;
- Collects, selects, and releases grasses, legumes, wildflowers, trees, shrubs, and general high latitude germplasm;
- Cooperates with public, private, commercial and tribal partners and land managers to apply new conservation methods using plants;
- Offers plant solutions to battle invasive species, heal lands damaged by natural disasters, reduce the effects of construction and resource development, and promote air and water quality;
- Produces disease-free seed of potatoes;
- Enhances economic opportunities for agriculture producers; and
- Expand programs to include alternative energy crops, forage crops for non-traditional livestock, horticulture crops for the future agricultural needs of Alaska producers.

Objectives: In general and as per legislative intent the objectives of the PMC are to:

- assemble, evaluate, select, and increase plant materials needed in soil and water conservation, agriculture, and industry, and maintain genetic purity of these materials;
- increase promising plant materials for field scale testing;
- test the promising materials in field plantings on sites that represent soil and climatic conditions not found at the center;
- maintain and provide for increase of basic seed stocks of plant materials for agricultural and conservation interests;
- make seed and plant materials available, for a fee if necessary, in such a manner as to avoid monopolistic control of basic stocks of these materials and encourage the development of a seed industry;
- support but not duplicate activities carried on by state or federally funded research programs in the state; and
- prepare, publish, and disseminate a summary report on all studies as they are completed.

Using these underlying charges, the PMC will move into the future with a renewed emphasis on service delivery and progressive program development. These guiding principles will evolve with market demands and Department/Division policy directives.

Objective 1: PMC Agriculture Support: The PMC will anticipate the need to protect, support, enhance and expand Alaska agriculture in terms of: appropriate plant materials for Alaska; soil and water conservation programs and projects; noxious weed and invasive species integration; and increased activity in demonstration projects and education/out reach. Furthermore, the PMC will work to enhance its ties to the National Resources Conservation Service (NRCS) and the Alaska Soil and Water Conservation Districts (SWCDs).

Objective 2: A Center for Revegetation Excellence: Nearly all development projects require some form of revegetation following surface disturbance. The use of native species in restoration should be encouraged and user's findings shared to all. The PMC will be the lead agency in the State of Alaska with regard to development, use and commercialization of native species for revegetation, erosion control and other resource development and agriculture activities.

Objective 3: Expanded PMC Services: Erosion control, storm water issues, and a litany of new revegetation topics are creating problems for the natural resource extraction and construction industries. The PMC, with its expertise in these areas, should be the home to the state's Land Use and Conservation Laboratory (LUCL). In full cooperation with industry, union training programs, land management agencies, NRCS and the SWCDs, the PMC will develop and demonstrate land and soil protection measures (best management practices [BMPs]) to preserve the quality of the waters and air of Alaska.

The PMC with the Natural Resource Specialist augmented staff can become the states land laboratory of proactive and progressive stewardship working hand-in-hand with the Conservation Districts and DNR.

Objective 4: Regional Native Plant Production Centers: Solutions to developing sources of native seed are needed by resource industries. By establishing seed growing/collecting cooperatives in village and rural regions, local native plants and seed can be made available, marketed and thereby create a sustainable industry formed in a few villages close to resource development projects.

Objective 5: Alaska Natural Gas Pipeline Seed Source Development Project: In Canada, some of the first contracts awarded in association with the Mackenzie Gas Line have been for seed production. This is in-part due to the basic problem in seed production that time is required to build up stocks of seed and to develop the production fields needed to supply the anticipated demand. Expect the same to occur in Alaska. The PMC is critical for the seed requirements of large projects like the proposed natural gas line.

Objective 6: Extension Activities and Public Workforce Development: Educational programs from the PMC engender the intrinsic value of green space, agriculture land, and wilderness. These programs empower teachers, adults, and children to appreciate, understand, and become stewards of Alaska land.

Objective 7: Ethnobotany and Harvest Manual: The Ethnobotany Project impacts not just plants and other forest species, but also people along the spectrum from Native Alaskans who may have the intellectual rights to the uses of traditional plants and depend on them for a subsistence lifestyle to those who wish to harvest those plants for commercial purposes on State land. Sustained yield of these resources is critical.

Through publications, presentations and trainings, as well as experience, the people on the Alaska Ethnobotany Project are in a position to positively impact the effect of commercial harvest of native Alaska plants in a sustainable manner on State land.

Objective 8: The Alaska State Seed Laboratory: The State's only official seed testing laboratory is certified by the national seed testing organization, Association of Official Seed Analysts (AOSA). It has been an official laboratory since 1998 and is the only one in the state of Alaska.

Essential services the laboratory provides are purity and germination tests, noxious weed seed examinations, tetrazolium testing, and grain moisture testing. New services could include: Endophyte Testing, Seed Vigor Testing, Leachate Conductivity Analysis, Cold Test, Accelerated Aging, Herbarium Development, Dormancy Research, Rare and Endangered Plant Research and Outreach and Education

Objective 9: Alternative Forages for Non-traditional Animals: Acquisition and evaluation of plant material with potential use as forage is in demand by producers of musk ox, elk, yak, bison, reindeer, and other livestock. These animals need a variety of plants in their diets – plants which have not been cultivated yet or evaluated by the PMC. It is time for this activity to start at the PMC.

Objective 10: Potato Disease Control Project: The potato program produces and provides a local source of pathogen-tested seed tubers. It assists the continuing development of the Alaskan potato industry. The project produces and provides disease tested seed primarily to commercial seed growers. The use of clean seed helps reduce losses from disease and helps to prevent disease introduction; critical elements in Alaska's potato industry.

Objective 11: Horticulture Development Project. The Division of Agriculture and the Plant Materials Center recognize the fact that the Horticulture Industry is by far the largest and most significant segment of commercial and hobby plant production in Alaska. In the context of this objective primary and secondary users such as the landscape industry and general public grounds beautification will be included as horticulture. With that said the Division of Agriculture and the Plant Materials Center will request the Department of Natural Resources secure funding to re-establish a horticulture development project at the PMC.