

# Agriculture and Horticulture

Agriculture and Horticulture

## V(A). Planned Program (Summary)

### 1. Name of the Planned Program

Agriculture and Horticulture

## V(B). Program Knowledge Area(s)

### 1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	10%		0%	
205	Plant Management Systems	40%		0%	
213	Weeds Affecting Plants	5%		0%	
216	Integrated Pest Management Systems	5%		0%	
302	Nutrient Utilization in Animals	15%		0%	
307	Animal Management Systems	10%		0%	
308	Improved Animal Products (Before Harvest)	10%		0%	
601	Economics of Agricultural Production and Farm Management	5%		0%	
<b>Total</b>		100%		0%	

## V(C). Planned Program (Inputs)

### 1. Actual amount of professional FTE/SYs expended this Program

Year: 2008	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	9.0	0.0	1.5	0.0
<b>Actual</b>	5.2	0.0	0.0	0.0

### 2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c 290141	1890 Extension	Hatch	Evans-Allen
	0	0	0
1862 Matching 290141	1890 Matching	1862 Matching	1890 Matching
	0	0	0
1862 All Other 382147	1890 All Other	1862 All Other	1890 All Other
	0	0	0

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

Agriculture and horticulture outreach includes the areas of animal agriculture, agronomy, agroforestry and horticulture. Alaska imports more than 95 percent of its food supply and with increasing transportation costs, commercial agriculture may become more viable for small and medium-sized crop producers in the state. Constraints include a short growing season, isolation from other producers and markets and high transportation costs. A need exists for educational support and expertise for producers to help make their operations more economically viable. The Agriculture and Horticulture program strives to decrease Alaska dependence on imported food, increase production and economic viability of Alaska crop and livestock farms, improve food production from community gardens and home gardens and to increase production of commercial horticulture enterprises.

Extension supported commercial and consumer stakeholders in 2008 with classes, newsletters, conferences, consultations and publications.

**Commercial agriculture and horticulture:** A variety of conferences in 2008 provided resources to producers, including the Sustainable Agriculture Conference and Organic Growers School, Alaska Greenhouse and Nursery Conference, Delta Farm Forum, Harvest Wrap Up, Potato and Vegetable Conference and Alaska Livestock Producers Conference. Livestock specialist also provided a series of animal science classes aimed at increasing knowledge of producers. This year, Extension provided support to commercial horticulture clients trying to grow a promising new high-value crop, peonies, which mature in Alaska at a time when they are not available elsewhere in the world. Agents also supported producers through phone calls, e-mail and on-site visits. In one case, Extension saved a developer an estimated \$50,000 by advising him to plant a native Alaska grass that is hardy and could be established on a gravel airstrip. Agent who is knowledgeable about precision agriculture, introduced Alaska farmers to the technology, which is expected to save farmers money on fertilizer costs.

**Consumer horticulture:** Most of our horticultural educational outreach emphasis is targeted toward the home gardener. With the high cost of importing food and concerns about food security, the interest in home gardening has increased. Extension trained 148 Master Gardeners in 2008. Home gardeners also attended a variety of composting, seed starting and organic and home gardening classes. An agent taught seed-starting and gardening classes in 12 villages and rural communities. Another agent worked on a grant determining local preferences and crop success for common cold-hardy crops and the viability and winter survivability of certain berry crops in six Interior villages. Through that effort, village residents received garden training and planting supplies and planned community vegetable and berry gardens.

### 2. Brief description of the target audience

- Commercial vegetable growers
- Organic vegetable growers
- Commercial greenhouse operators, including chain stores
- Commercial nursery operators, including chain stores
- Greenhouse owners for home consumption
- Community gardeners
- Home gardeners
- Commercial livestock producers
- Livestock owners for home consumption
- Horse owners
- Forage growers
- Forage consumers
- Youth and 4H
- Policy makers

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

**Target for the number of persons (contacts) reached through direct and indirect contact methods**

	<b>Direct Contacts Adults</b>	<b>Indirect Contacts Adults</b>	<b>Direct Contacts Youth</b>	<b>Indirect Contacts Youth</b>
<b>Year</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>	<b>Target</b>
<b>Plan</b>	3500	16250	4900	6750
2008	17875	2305050	1917	47150

**2. Number of Patent Applications Submitted (Standard Research Output)**

**Patent Applications Submitted**

**Year Target**

**Plan: 0**

**2008: 0**

**Patents listed**

**3. Publications (Standard General Output Measure)**

**Number of Peer Reviewed Publications**

	<b>Extension</b>	<b>Research</b>	<b>Total</b>
<b>Plan</b>	0	0	
2008	11	0	11

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

Output 1: Extension faculty and staff will offer agricultural and horticultural workshops.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2008	105	125

**Output #2**

**Output Measure**

Output 2: Extension faculty and staff will provide agricultural and horticultural information through one-on-one consultations and consultations with other organizations. These consultations will be measured in contact hours.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2008	1600	6100

**V(G). State Defined Outcomes**

O No.	Outcome Name
1	Outcome target 1: Increase crop producers' knowledge of food production practices in Alaska.
2	Outcome target 2: Increase livestock producers' knowledge of food production practices in Alaska.
3	Outcome target 3: Increase crop producers' understanding of optimum production practices.
4	Outcome target 4: Increase livestock producers' understanding of optimum production practices.
5	Outcome target 5: Increase crop producers' ability to assess their own production practices.
6	Outcome target 6: Increase livestock producers' ability to assess their own production practices.
7	Outcome target 7: Increase crop producers' application of optimum production practices.
8	Outcome target 8: Increase livestock producers' application of optimum production practices.
9	Outcome target 9: Increase crop producers' production by five percent on a per farm basis over five years or less.
10	Outcome target 10: Increase livestock producers' production by five percent on a per farm basis over a five year or less.
11	Outcome target 11: Increase crop producers' economic viability on a per farm basis as measured by net farm income over five years or less.
12	Outcome target 12: Increase livestock producers' economic viability on a per farm basis as measured by net farm income over a five year or less.
13	Outcome target 13: Individuals who participate in educational activities related to community and home gardening will increase their knowledge of small-scale agricultural production techniques.
14	Outcome target 14: Individuals who participate in educational activities related to small-scale livestock production will increase their knowledge of small-scale agricultural production techniques.
15	Outcome target 15: Individuals who participate in educational activities related to community and home gardening will apply the techniques they learn.
16	Outcome target 16: Individuals who participate in educational activities related to small-scale livestock production will apply the techniques they learn.
17	Outcome target 17: Commercial horticultural producers (greenhouse growers, nurseries, landscapers, garden centers, and other commercial horticulture operations) will increase their productivity.
18	Outcome target 18: Commercial horticultural producers (greenhouse growers, nurseries, landscapers, garden centers, and other commercial horticulture operations) will increase their economic viability.
19	Outcome target 19: Alaska's dependence on imported food will decrease by one percent annually (target measure is 'percent').

**Outcome #1**

**1. Outcome Measures**

*Not reporting on this Outcome for this Annual Report*

**2. Associated Institution Types**

**3a. Outcome Type:**

**3b. Quantitative Outcome**

Year	Quantitative Target	Actual
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**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

KA Code	Knowledge Area
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**V(H). Planned Program (External Factors)**

**External factors which affected outcomes**

Natural Disasters (drought, weather extremes, etc.)

Economy

Appropriations changes

Public Policy changes

Government Regulations

Competing Public priorities

Competing Programmatic Challenges

**Brief Explanation**

Working through the Plan of Work outcomes, we discovered several measures that we do not have adequate information to report on, particularly regarding the percentage increase of livestock production and profitability per farm and the percentage increase of crop producers' productivity and profitability per farm. Our interim director has revised and simplified outcomes for 2009. The high cost of petroleum products and fertilizers are expected to impact the productivity and the economic viability of horticultural and agricultural operations in the state. The small number of agricultural staff working for Extension, the geographic distances between communities and high transportation costs involved in traveling to communities off the road system all present challenges to Extension, which tries to provide a supporting role for horticultural and agricultural production in the state.

## **V(I). Planned Program (Evaluation Studies and Data Collection)**

### **1. Evaluation Studies Planned**

After Only (post program)

Retrospective (post program)

Before-After (before and after program)

During (during program)

Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Comparison between locales where the program operates and sites without program intervention

### **Evaluation Results**

It is obvious that we need to improve our evaluation techniques regarding the capture of programmatic efforts and impacts. Most of our agriculture agents do evaluations after an event for recording impacts but our livestock specialist and a number of agents do pre- and posttest surveys to determine what participants in their workshops learn. We are learning through surveys what areas interest clients for future programming. All of our agents used surveys after our major conferences and most agents regularly surveyed following individual classes.

### **Key Items of Evaluation**