

SUSTAINABLE LIVESTOCK PRODUCTION IN ALASKA

Workshop Report



David Poppe, Nenana Urban Farms, with Dexter cow Clara and her 4-hour-old bull calf on Sept. 28, 2011.

Photo by Nancy Tarnai, AFES .

Executive Summary

The Global Food Security Index (<http://foodsecurityindex.eiu.com/>) measures three core issues fundamental to food security: food affordability; food availability; food quality and safety. Alaska's long food miles, high transportation costs, and heavy dependence on fossil fuels result in a highly vulnerable food system that is both expensive and of poor quality. Industrialized, factory farming is not an economically viable option in Alaska and has never gained traction. On the other hand, an agricultural model that is based on small and mid-sized, sustainable farms is exceptionally well suited to this state.

We have the capacity and the land base to produce enough meat to feed many more Alaskans – but we have not done it! Why not? This simple question became the theme for a meeting and workshop, sponsored by USDA and hosted by the School of Natural Resources and Agricultural Sciences (SNRAS), University of Alaska Fairbanks (UAF), at the Sheraton Anchorage Hotel in October 2011.

Using a single component of the Alaska food system, the red meat system, the October meeting brought together livestock producers, processors, regulators, policy makers, animal health care practitioners, food safety professionals, and researchers. The conference initiated a dialogue that defined barriers and sought solutions to growing a healthy, sustainable livestock system in the state, focusing on three principal categories: production; processing and distribution; marketing and retail.

Producers cannot do it alone. Collectively, the conference participants stressed the need for more education at all levels - through traditional educational avenues, through distance delivery and through innovative uses of appropriate social media. They proposed partnerships and hands-on programs, designed to keep the focus on Alaska agriculture. Participants identified and prioritized research needs in all three categories with the emphasis on communicating research results to the broader community. While research and education entered the discussion in the three focus areas, regulatory issues and outdated or irrelevant government policies were also a prominent feature in many discussions.

Among the suggestions emerging from the meeting, the formation of a stakeholder group as a means of maintaining the communication between producers and the University Community is already being implemented. A conference and workshop on Livestock Feeding and Grazing Systems, jointly sponsored by the Alaska Diversified Livestock Association and the SNRAS Research Team, took place in October 2012. At the University of Alaska Fairbanks, SNRAS is reorganizing to incorporate sustainable agricultural practices into a multi-disciplinary program and degree offering.

In The Global Food Security Index, food availability measures what a town, district, state or country expends on agricultural research and development, as well as its agricultural infrastructure. Making food available for Alaskans is something we collectively can do.

Workshop White Paper

Editors: J. E. Rowell, M.P. Shipka, J. A. Greenberg, S. C. Gerlach, & T. Paragi



Herd of elk at Northern Lights Elk Ranch, Palmer Alaska

photo by Delbert Simeno

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& Cooperative Extension Service,
University of Alaska Fairbanks**

INTRODUCTION

CONFERENCE AND WORKSHOP GOALS

The goal of the workshop was to identify key components and strategies needed to define research priorities and to develop programs in education and extension for sustainable livestock production in Alaska, specifically:

- **Identify best management practices - from the production of healthy meat to the health of the ecosystem.**
- **Identify barriers to sustainable red meat production - from farm to market issues including consumer access, affordability, attitudes, and preferences.**
- **Identify how the university can work in collaborative ways with all stakeholders to support the development of sustainable agriculture through research, education, and extension.**

The complex relationship between food production, distribution, and access is the foundation for food system sustainability and food security. This is particularly relevant in a state such as Alaska where approximately 85-90 percent of the red meat we consume is imported. Today, agricultural production is possible, productive, and active in many parts of the state; we know that local red meat farming is profitable and we have both the capacity and land base to produce enough meat to feed many more Alaskans – but we haven't done it! Why not?

Alaska is well positioned to design and develop a new and innovative agricultural and food production system that is unencumbered by outdated practices and archaic attitudes, embodied by the industrialized factory farming model. Developing sustainable food systems is the first step toward food security, and reflects our strong commitment to sustainable food systems for all Alaskans.

With the example of a single component of a complex food system – the red meat system – we approached the above question by hosting a conference and workshop intended to bring together multiple stakeholders with vested interests in all aspects of this food system. During both the organizational and implementation phases of the project, we had several goals in mind, some explicit, others emerging from conference discussions as stakeholders and professionals worked

together to define problems and develop solutions.

Dr. Carol Lewis, dean of the School of Natural Resources and Agricultural Sciences, UAF, delivered the opening remarks emphasizing the extreme vulnerability and multiple threats to Alaska's food system. The long food chain, the energy-intensive means of getting food to Alaskans, and the lack of understanding and neglect by Alaskans - from government officials to the private sector – of the precarious position of food security in this state were key points addressed. Dr. Lewis further stressed the fact that we need to start making changes now, warning the audience that “if we do not manage change, change will manage us.”

The need for change – towards sustainability and food self reliance - was the theme of the meeting, and this was reinforced and expanded upon in the keynote address delivered by Dr. John Ikerd (see <http://web.missouri.edu/~ikerdj/>).

A series of questions relating to each of the industry components was proposed to the workshop participants. To facilitate discussion, on day one participants were divided into groups of ten and placed, with a predetermined facilitator, at one of eight tables. Responses to the questions by each table were captured on tablets. Each table voted for the ideas they thought held the greatest potential to promote a sustainable live-

The Process

stock industry in Alaska. Responses were collated and the top three responses from each table tabulated. On day two the top responses to each of the questions were discussed in more detail and participants voted again for those ideas with the greatest potential to advance Alaska's livestock food system.

Designing the questions was difficult. The organizing committee wanted questions that applied broadly to the diverse regions of the state. The questions also needed to strike a balance between being open enough to capture novel ideas, yet sufficiently constrained to keep the discussion on topic and productive. The resulting questions were considered too broad by some tables, too narrow by others. We believe this diversity of response meant that the appropriate balance had been reached.

The questions served as a starting point for a full day of discussions that were wide ranging, informative and as varied as the participants themselves. Summarizing the responses was an even greater challenge. We have taken all the responses recorded for each table and during open floor discussions, tabulated and categorized them, making every effort to retain original intent. The results from these discussions and votes are presented below for each of the questions.



Keynote Speaker: Dr. John Ikerd

John Ikerd is Professor Emeritus of Agricultural Economics at the University of Missouri, Columbia. He was raised on a small dairy farm in southwest Missouri and received his BS, MS, and PhD degrees in agricultural economics from the University of Missouri. He worked in private industry for a time and spent thirty years in various professorial positions at North

Carolina State University, Oklahoma State University, University of Georgia, and the University of Missouri before retiring in early 2000. Since retiring, he spends most of his time writing and speaking on issues related to sustainability with an emphasis on economics and agriculture. Ikerd is the author of several books, including *Sustainable Capitalism: A Matter of Common Sense*, *A Return to Common Sense*, *Small Farms are Real Farms: Sustaining People Through Agriculture*, and *Crisis and Opportunity: Sustainability in American Agriculture* (see <http://web.missouri.edu/~ikerdj/>)

For each question the problem and



possible solutions were discussed and the ideas that emerged were

recorded on tablets. At the end of the discussion participants voted for those ideas they felt were most important.

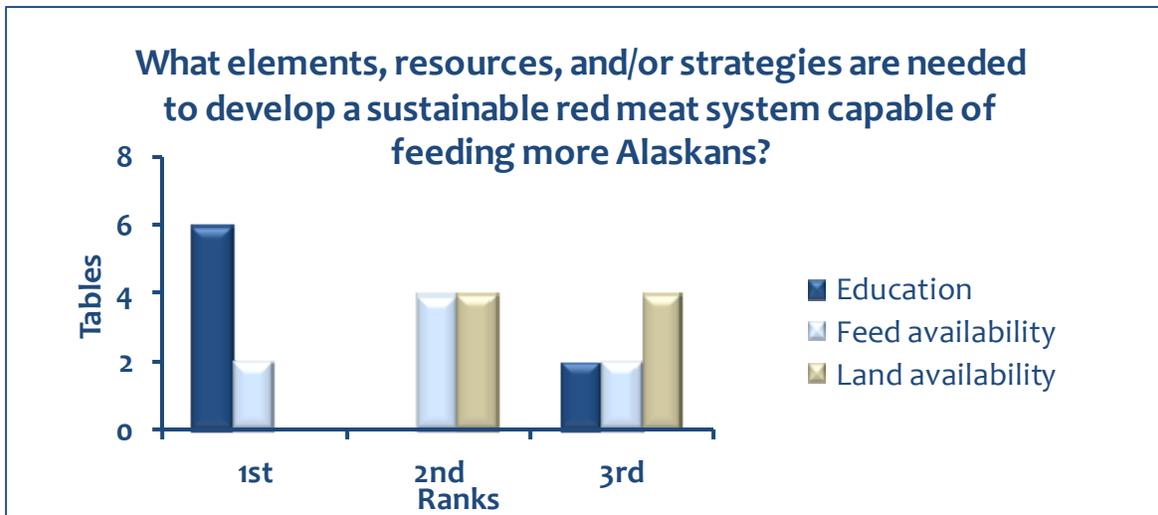
These were tabulated at the end of the day and the top three responses from each table were set up for discussion on day two.



Once again the ideas were recorded and participants voted for those solutions that best represented their views. The summary of this final vote is presented here.



Production Question 1.



The responses to Question 1 were grouped into three broad categories: **Education, Feed availability, and Land availability**. The graph depicts how the tables (vertical axis) ranked the three categories. For Example: Six of eight tables ranked education first while two of eight tables ranked available quantity and quality of feed first. Ideas encompassed by each category are described on the following pages.

Education

- How to start farming—or how to start farming something new; use of appropriate livestock on grazing lands
- Education in sustainable agricultural practices—information on Alaska animals and local fertilizers
- University programs—research on best practices related to sustainable farming in Alaska
- Education on the economics of Alaska agriculture and marketing strategies—what are the economic break-even points and the tipping points for success or failure
- Education through hands-on, experiential work, and collaborative demonstration projects with local agricultural experts and stakeholders
- More use of social media e.g.—Facebook, Twitter, YouTube, etc., to facilitate information transfer to, and communication among, stakeholders; reliable information at a single source such as an Alaska agriculture website
- Information on alternate uses for available resources, i.e., fish waste with state incentives to use/process local fish industry waste
- ‘How to’ videos
- Internships—secondary, post secondary, Alaska Native and foreign youths

Affordable Quality and Quantity of Feed

- Produce and process livestock feed in state
- Attention to quality, species differences, and storage options
- Feed prices and quality are a big issue. Not only is in-state hay expensive, but the quality offered to livestock producers is highly variable and often poor
- Develop native forages and rotational grazing systems appropriate for the region
- Expand: forage, land, storage capacity
- Improve and expand research and demonstration of locally grown feed
- New and innovative research on developing grassland species and rotational grazing of native forage systems with bison, yak, goat, and elk as examples of potentially viable species

Availability of Land for Agriculture

- Reasonable cost to acquire and develop land with agricultural use restriction: legislative action, advertisement of incentives (i.e., through property taxes)
- Farmland close to markets, and state programs to offset local tax revenue to borough/municipality
- New public lands for grazing (federal, state, borough): reindeer and cattle leases, other area leasing models, organizational lobbying efforts such as grazing associations and agricultural cooperatives, with Alaska Native “for profit” and non-profit corporations involved in all of these initiatives
- Some government programs appear contradictory with respect to their outcomes, i.e. Conservation Reserve Program takes land out of production in areas where competing programs are intended to expand agricultural land use. The CRP program should be re-examined for Alaska with agricultural expansion as a primary goal
- Improved disposal of state agricultural lands; there needs to be better oversight of farmland sales to ensure they add to agricultural capacity
- Incentives: for producers (tax deferments, land accessibility) farmland is taxed like residential property—there needs to be some form of farmland exclusion or separate tax consideration for farmland; fuel incentives for heating and transportation are common agriculture incentives in the Lower 48 and could be very useful up here
- Government needs to provide greater assistance — standard loan programs are too limited

Summary of Question 1

Education

In Alaska we need more site-specific information on sustainable practices that will work under high latitude conditions. In general it was felt that Alaska’s livestock are best suited to grazing and browsing, with the role of native forage important and largely undeveloped from a research perspective. The prominence of education in the voting reflected a wide range of needs, agendas, and vested interests, with education having multiple meanings and applications in the minds of many. Fundamental information on different grazing practices is a primary, critical need— i.e. pasture needs for traditional species (cattle, sheep, and goats) native and non-traditional species (reindeer, muskoxen, bison, elk, and yak), and multispecies, successional, and rotational grazing. Education on the economics of farming is needed to help individuals evaluate their current farm situation, engage in planning and guide investment strategies. Given the size of this state, the value of distance education through websites, social media, ‘how to’ videos, and producers educating producers came up in almost every context. Staying connected, while vitally important, is a challenge considering the size of the state, the regional ecological, social and cultural differences, and the diversity of producer goals and needs.

Affordable quality and quantity of feed

A livestock food system that depends on imported feed will never be sustainable anywhere, but especially in an area such as Alaska where distance from production source to consumption by livestock is so great. More research is needed on efficient production of local feeds—what crops are best suited to different regions and what infrastructure and state support are needed. Further development of native forages is necessary, along with cultivating a diversity of feedstuffs and feed storage capacity. While stor-

age capacity is not the only limiting factor, it is a critical one. The ability to improve soils through recycling local products like fish waste reduces costs and, when this is coupled with local milling, the benefits spread and remain within the state. We need to be able to produce a greater quantity and consistent quality of nutritious and affordable hay. Farmer cooperatives provide a mechanism for gaining storage space, equipment, distribution, knowledge, and labor. Still farmers and stock growers need unfettered access to constantly evolving information from agricultural experts, meteorologists, climate scientists, large animal veterinarians and others with needed expertise.

Availability of land for agriculture

Alaska may be the largest state in the union, but affordable and accessible agricultural land is at a premium. Clearing land and conditioning soil are expensive and research into low cost alternatives is imperative. In addition, there are many local and state regulations and taxes that block agricultural expansion and/or favor urban development, with urban development typically the winner in this game of economics and choice. Policy changes from the legislature and local governments are needed to promote expansion of agriculture. Many government programs are contradictory, even working at cross-purposes, such as the Conservation Reserve Program (CRP) which takes land out of production while at same time other federal and state programs are attempting to expand land availability. A necessary first step in invoking policy changes is to raise the public's awareness of, and demand for, Alaska agricultural production, including meat. Enhancing the profile of Alaska agriculture is critical to public support. Public support through education and awareness is a prerequisite for agricultural land policy changes.

There were 83 registered participants representing the following categories

35 producers (42 %)

9 livestock related businesses (11 %)

22 university personnel (27 %)

7 students (8 %)

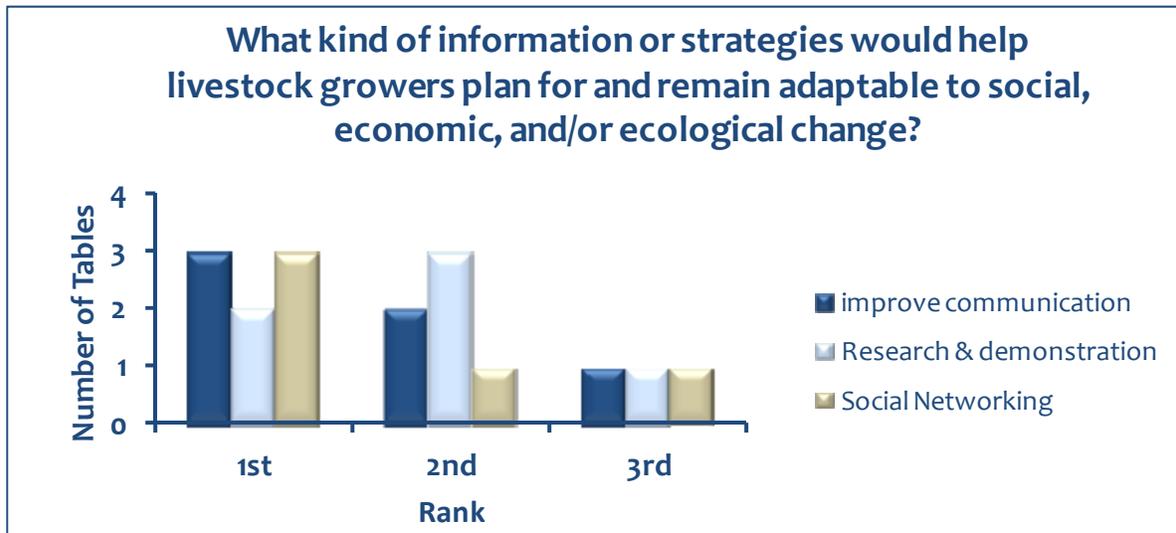
5 federal - 5 State of Alaska employees (12 %)



Angus cattle at Whitestone Farm, Delta Junction Alaska

photo by Nancy Tarnai

Production Question 2.



The responses to Question 2 were grouped into three broad categories and ranked by table (y axis). **Improved Communication Between Producers and the University** was the top ranked category, **Research and Demonstration** was second, and **Communication Via Web-based Tools** was third. Ideas encompassed by each category are listed below. Not all tables voted in every category.

Better Communication Between Producers and the University

- Create a Stakeholder Group that includes representatives of all components of the red meat production system
- The university can use resources such as YouTube, local TV and radio networks, websites, and blogs for communicating new research and novel ideas to producers throughout the state
- Because not all communities have easy internet access, we need to think creatively about how to improve communication across many rural areas of the state with limited or no access to internet
- Need to customize sustainable agriculture practices for Alaska conditions and make the information available through the internet and the Cooperative Extension Service

Research and Demonstration of Locally Grown Feed

- Grassroots workshops and 'schools' led by farmers and ranchers with proceeds paid back to participating teachers
- Open door farms (with appropriate bio-security protocols) and on-farm mentoring
- Producers need to see before and after effects, before designing and investing in new systems, i.e. grazing strategies that are place-based and appropriate for high latitudes
- The university needs to be better engaged with producers as they plan research programs



More Social Networking and Information on Agriculture

- Education and outreach on the benefits of local red meat production
- Customized extension program for Alaska producers
- Agricultural lifestyle and the economic realities of farming in Alaska

“We need a single source website ... one that makes creative use of social media ... Facebook, Twitter and You Tube”

Summary of Production Question 2

This question generated additional discussion on communication and ‘hands on’ learning. Participants stressed the importance of cooperation and open communication between producers. Overall, votes regarding this question emphasized the need for greater extension involvement in the livestock industry and the need for developing ‘user friendly’ interfaces for distance delivery and communication. A desire was expressed to have a voice in the university community such that research and extension reflect the concerns and needs of livestock communities. The formation of a stakeholder group would facilitate formal dialogue between farmers and the university.



*“We need
a voice in the university community such that re-
search and extension reflect the concerns and
needs of the livestock community..”*

*“The formation of a stakeholder group
would facilitate formal
dialogue between farmers and
the university....”*



Production Question 3.



Principle responses encompassed by each category are described below. Numbers above the bars indicate total number of votes

Youth involvement

- 4-H, FFA
- Alaska Agriculture Day
- Agricultural education in schools

Specialized workshops and learning

- How to raise livestock
- Curriculum development at the university
- Hands-on programs using the Agricultural and Forestry Experiment Station

On-farm work and hire Alaskans

- Farm-work programs
- Preference for hiring Alaskans
- Internships

Land disposals, incentives, investment

- Small-scale agriculture and homestead land disposals
- Incentives—tax breaks, work to own, predator mitigation through control and reimbursement
- Investment capital

Fair Wages and Health Care

“Veterinary science and animal science programs are important...”

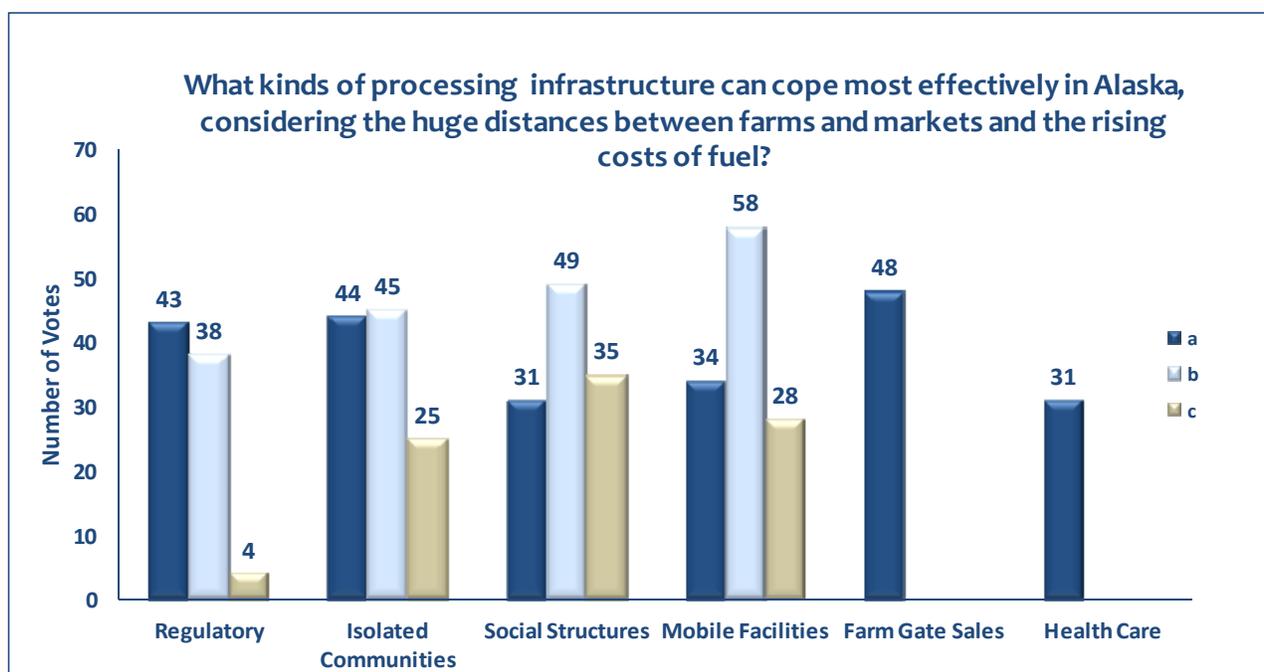


*“Health care for the entire family
.....this is a big issue ...
really important!”*

Summary of Production Question 3

Today's youth are tomorrow's farmers and we need to be doing more to recruit them! Education was stressed again and again throughout the conference with discussion focused on the whole continuum from formal university courses to on-farm mentoring. It was suggested that a farming manual, specific to Alaska issues, be compiled and made available to new farmers. A strong emphasis was placed on hands-on learning. The idea of combining traditional learning with on-the-job farm training and farm mentoring received wide-spread support, though details of how this might work need to be explored. It was pointed out that there are no provisions within Alaska's labor laws that address apprentice labor guidelines. Again, small policy changes could foster a win-win partnership. In addition, participants emphasized the need for better incentives to provide available, affordable land for new farmers.

Processing & Distribution Question 1.



Responses were grouped into six separate categories. The first four categories contained three major subdivisions listed below (the colored bars correspond with sub-categories a, b, and c). The last two categories stand alone. The numbers above each bar refer to total votes.

Regulatory

- Review & revise transportation regulations for agricultural products
- Improve policy and regulations on live animal importation and produce educational materials about how to import livestock, regulatory barriers and constraints
- Use locally available species that don't require importation—this could be done through the development of new breeding stock coupled with increased

access to, and use of, artificial insemination to maintain genetic diversity

Isolated communities

- Investigate alternative ways of processing: community canning, drying, & smoking
- Investment in storage facilities
- Recycle waste locally i.e. fish waste into animal feed

Social Structures

- User-operated slaughter facilities, increased coop-

- erative efforts for killing, cleaning, and inspection
- b) Distribution center and sale barns, both statewide and regionally
- c) Farmers' cooperatives for better timing of production and staggered slaughter schedules; freezing of carcasses for late cutting

Mobile facilities

- a) Specialized mobile units i.e. a kill floor only followed

- by carcass storage for later processing
- b) Mobile processing facilities for on and off-road systems
- C) Butchering/processing education

Farm –gate Sales

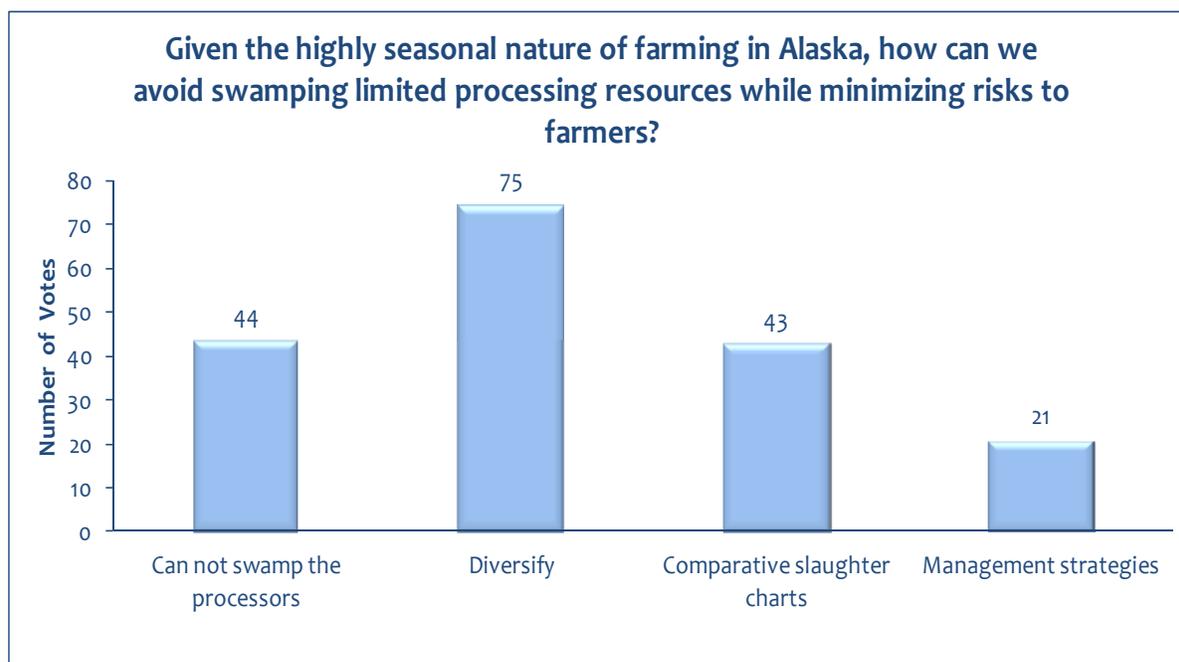
Health Care

Summary of Processing and Distribution, Question 1

A large part of the discussion focused on state and federal regulations that curtail flexibility in kill, slaughter, and processing. The relative merits of centralized, fixed facilities versus mobile facilities were debated for farms on a road system as well as mobile units for off-road communities. Participants focused on the pros of developing mobile slaughter facilities with specific regional adaptations. Suggestions ranged from the possibility of user-operated slaughter facilities with cooperative efforts to handle the killing, cleaning, and inspection portions to a rural community-based processing facility that can be used to produce meat for personal consumption. These comments were largely in response to the fact that inspected commercial meat is not the objective for most rural communities. A more suitable emphasis for rural communities is the availability of affordable, healthy, local food, whether locally grown or harvested as country foods from the wild.

A number of responders felt that the state needs to stop subsidizing a processing facility that is not based on a real world business model.

Processing & Distribution Question 2.



Responses fell largely into four major categories. The number on top of the bar refers to the total number of votes. Categories are described on the following page.

- **Cannot swamp the processors**

Responders generally felt that there are not enough livestock producers in Alaska to swamp the processing facilities

- **Diversify**

Wild game harvest and livestock both arrive at the slaughter facilities in the fall—Need to diversify livestock and/or production through management strategies thus spreading out slaughter times

- **Comparative slaughter charts**

Arrange different slaughter times for different species taking into consideration birth date, rate of growth from weaning to market weight, and other mitigating factors for each species

- **Management strategies**

Look into the potential for manipulating breeding/birthing times to shift slaughter from peak processing in the fall

Summary of Processing and Distribution, Question 12

There were some polarized opinions regarding even the validity of this question. Some people felt that the existing processing facilities were more than adequate to handle the livestock industry in the immediate and near future. However, others saw temporal issues with local processors being overwhelmed in the fall. This is when most people want to ship livestock and when they find themselves competing with local hunters who want their meat cut and wrapped. The discussion revolved around creative solutions to alleviate this bottleneck without placing excessive financial burden on producers. Some of these ideas involved educating farmers in techniques to shift calving and subsequent slaughter times to avoid the busy season. Communication was emphasized to facilitate cooperation among producers and establish breed/species specific slaughter schedules.



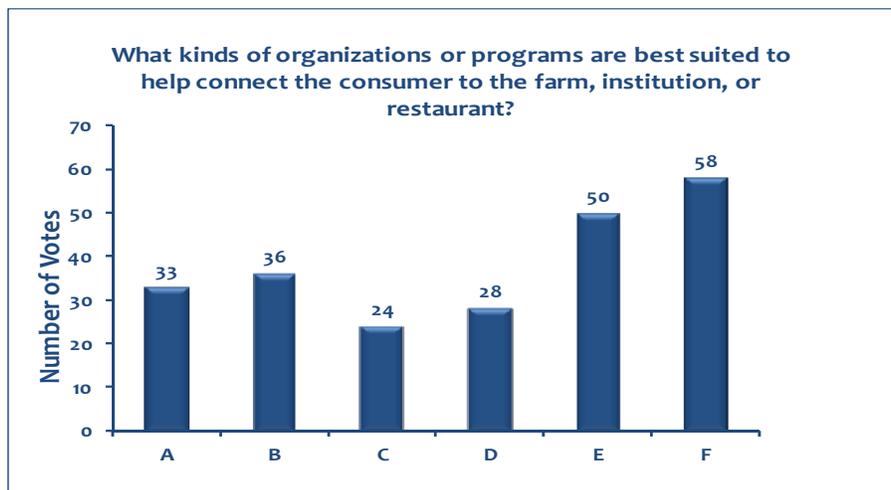
Sheep grazing at Faith Hill Farms, Kodiak Alaska

Photo by Philip Loring

“We need grazing strategies that are place-based and appropriate for high latitudes”

“We must encourage land owners (federal, state, and local) to make more grazing land available..”

Marketing, Retail, & the Consumer Question 1.



Letters correspond to categories described below. Numbers above the bar refer to total number of votes

A. One Website

A single internet source where businesses, including retailers, distributors, restaurants and growers, can post what they have available now or by date

B. Beginning Farmer Information

Produce a notebook/publication for the beginning farmer providing information on marketing and appropriate use of logos and marketing venues. This should include legal templates governing issues such as copyright and liabilities

C. Intensive Marketing Program

Model a program after the Alaska Seafood Marketing Institute designed specifically for marketing locally produced red meat in-state

D. Farm cooperatives

Producer cooperatives for collectively marketing locally produced meat

E. Alaska Grown

Make more use of the Alaska Grown logo and State of Alaska marketing efforts

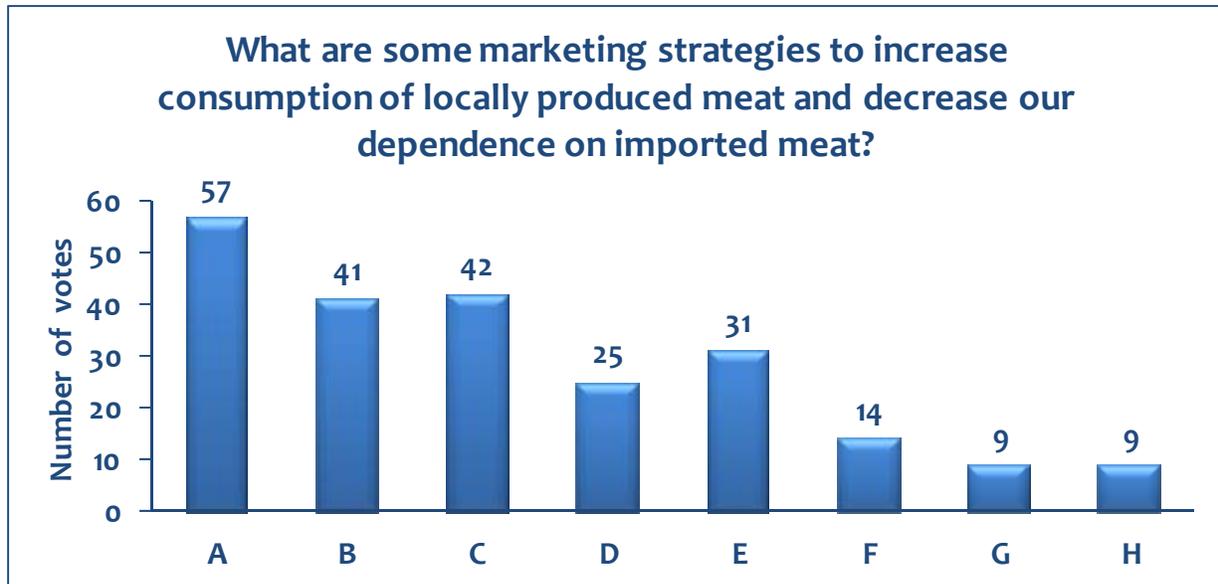
F. Buy Direct

Buy directly from the producer



“We need... . university programs—research on best practices related to sustainable farming in Alaska...”

Marketing, Retail, & the Consumer Question 2.



Letters correspond to categories described below. Numbers above the bar refer to total number of votes

A. Better labeling

Use pictures, story of family or the farm to create a profile and a personal touch

B. Producer bonds

Cultivate and support relationships formed between the producer and customer e.g. community supported agriculture

C. Differentiate your product

Consistent pricing is important as well as informing the consumer why your product may be more expensive

D. Support through local business

Encourage restaurants and stores to promote local providers by using and advertising locally produced meat

E. Educate the consumer

Need more promotion for the benefits of locally produced meat

F. Third party certification

G. Alaska livestock marketing institute

Modeled after the successful Alaska Seafood Marketing Institute

H. Marketing studies

Help understand consumer preferences

“... a lot of producers haven’t invested in marketing—they have a waiting list”



Marketing, Retail, & the Consumer Question 3.



Summary of marketing, Retail and the Consumer, all 3 Questions

In general most conference participants felt that marketing was not a limiting factor in red meat production, but further conversations with other farmers and stock growers suggests that as the food system grows marketing will play an increasingly significant role. While many producers currently have no difficulty selling their product, they realize the importance of marketing and the need to properly represent their product to the public.



“.....as the food system grows, marketing will play an increasingly significant role”

Outcomes

Stakeholder Group

Identification of information needs and their relative importance to participants at the 2011 workshop have provided us (workshop organizing committee) with direction for the next steps. The formation of a stakeholder group representing the different agricultural regions in the state, as well as components in the red meat food system, will help guide development of objectives for research, education, and extension programs. Our goal is to work cooperatively with a stakeholder group specifically from the livestock community who will provide regional feedback on research priorities and plans. Input will be sought during research planning and annual evaluation of on-going projects.

As a first step in structuring the stakeholder group a steering committee, composed of engaged and willing individuals, identified from each of UAF's Cooperative Extension Service Districts, will be established. The steering committee will help define the advisory role of stakeholders, approaches to solicit regional input, means and frequency of communication between the group and the research team, incorporation of new memberships, membership turnover, and future recruitment. Some individuals have been approached and when we have recruited a representative number of individuals, an initial meeting will be scheduled.



Guest Speaker:
Dr. Ben Bartlett

... shared his expertise as a livestock consultant specializing in grazing practices, low stress animal handling, and new enterprise analysis. Dr. Bartlett is a retired veterinarian and Certified Educator in Holistic Management .

A Second Conference

We were approached by the Alaska Diversified Livestock Producers (ADLA) for help in organizing a follow-up conference on grazing strategies: **Feeding and Grazing Practices for multiple Alaska species: problems and prospects**. The meeting, jointly sponsored by the ADLA and the UAF Research Team, took place in October 2012. Dr. Ben Bartlett was the keynote speaker and presented information on Holistic Grazing Management and managed grazing practices in general, offering a mini workshop on grazing strategies. The money remaining in the original grant was committed to offset the costs of an outside speaker and venue.

While in the planning stages for the second conference, livestock producers interested in fiber production expressed a desire to add a fiber component to the upcoming meeting : **Alaska Fiber Production: from agriculture to art**. This event was sponsored by the Division of Agriculture, State of Alaska and represents an important expansion for livestock producers into the area of value-added products. It also collectively adds to the voice of local producers.

Outcomes

Value Added

A Fiber Association is in the process of being developed. This association is intended to act as an umbrella organization for fiber producers and consumers (retail businesses and artists) and will be tasked with maintaining communication, fostering education and establishing quality standards for Alaska fiber production.

There was a strong consensus among this group to investigate the feasibility of bringing fiber processing to the state.



Nephthys, a cashmere goat at Shepherd's Moon Farm, Clam Gulch, AK photo by L. Coray-Ludden

Publications

1. Deirdre Helfferich, 2012. Recovering from an aberration: the future of Alaska's livestock. *Agroborealis* 42(1): 26.
2. Jan Rowell, S. Craig Gerlach, and Milan Shipka. 2013. Livestock Systems in Alaska: New Ideas, Practices, and Possibilities. *Agroborealis* 43: in press.
3. Jan Rowell, S. Craig Gerlach, Milan Shipka, Joshua Greenberg, and Tom Paragi (Editors), 2013. *Sustainable Livestock Production in Alaska*. Workshop Report. for Sustainable Livestock Production in Alaska, Conference and workshop, Oct 13-14, 2011.

Grant Proposal

The feedback generated through the USDA sponsored conference in 2011, maintained through the ADLA into a second conference in 2012 and through the formation and participation of a stakeholder group, will form the centerpiece for an integrated grant proposal on sustainable agriculture to be submitted to USDA following the 2013 Request For Proposals by USDA Food Security Initiative. This proposal will incorporate stakeholder input in all three components: research, education, and extension.

“Being a good farmer is about a calling to be a farmer. It’s not just a profession. It’s about a purpose, a life that’s worth living.”

~John Ikerd, Livestock Production in Alaska, Conference and Workshop, Oct. 2011

Acknowledgements

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Invited officials

Dr V. Philip Rasmussen



Workshop Facilitator

Dr. Phil Rasmussen has been the coordinator of Western Sustainable Agriculture Research and Education program (SARE) since 1994 and has been associated with National SARE since 1988, having served on the first SAN Committee. He is also an assistant director in both the Utah Agricultural Experiment Station and the Utah State University Cooperative Extension Service. In 1999, Phil was appointed as the first NASA Geospatial Extension Specialist in the nation. Phil received his bachelor's and master's degrees at Utah State University and his doctoral degree at Kansas State University. Currently, he serves as the Regional Coordinator for the Western Region SARE Program and is the Geospatial Extension Specialist for Utah.

Dr. Carol Lewis



Opening comments day 1

Dr. Lewis is the dean of the UAF School of Natural Resources & Agricultural Sciences, the director of the Alaska Agricultural & Forestry Experiment Station, and chair of the Pacific Land Grant Alliance. She received bachelor's and master's degrees in mathematics from the University of Florida, a PhD in theoretical physics (ultrasonics) from Georgetown University, and an MBA at the University of Alaska. Her current interests are sustainable natural resource development and marketing, including applications and systems for conventional and alternative energy in remote areas.

Dr. Fred Schlutt



Opening comments day 2

Dr. Schlutt is vice provost for outreach and director of the University of Alaska Fairbanks Cooperative Extension Service. He received a bachelor's degree in sociology, a master's in horticulture, and a PhD in adult and extension education, all from Texas A&M University. A 33-year extension employee, he worked in Texas, Wyoming, and Maine before coming to UAF. His current interests are energy, climate change, food security and safety, health, economic development, and positive youth, family, and communities.

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The End

Photo by C. Terzi



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Susan Willsrud and friends—Susan, a graduate from the School of Natural Resources and Agricultural Sciences, UAF, is co-founder and farm director of Calypso Farm and Ecology Center, Ester, AK
photo by Garrit Vyn