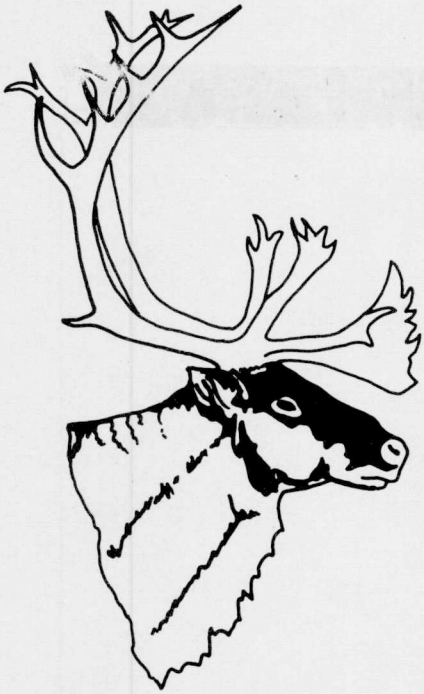
Alaska's Reindeer Program

1986 Report of the University of Alaska Reindeer Program



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986 Report the Applied Reindeer Research Project

by

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Applied Reindeer Research Program

Introduction

The University of Alaska-Fairbanks reindeer program has existed under its current organizational framework since 1981. Program guidance across the three functions of research, extension, and instruction continues to meet with support both internal and external to the university. The program's user group, the Alaska Reindeer Herders Association, is an ideal Land Grant/Sea Grant recipient for such guidance.

Several major issues outlined by the Reindeer Herders Association's first five-year plan have been addressed during the past few years. In most cases the university's input has helped to resolve the association's concerns. Currently a new five-year plan is being developed, and the university's reindeer program is responding by redirecting its efforts toward emerging issues.

This report identifies recent accomplishments in the reindeer program, continuing efforts, and projected areas of future effort.

Research

Economics and Marketing

Reindeer have historically supplied a number of products such as meat and leggings for mukluks. Now, velvet antler is being harvested,

and there is a potential for other by-products. There may also be a market for live reindeer as disease problems become controlled.

Significant effort has gone into exploring product markets and working with the reindeer industry on how best to capitalize on marketing opportunities. Workshops have been conducted to utilize expertise from New Zealand's red deer industry, to discuss by-products and how they are removed from the animal, and to learn how other marketing systems are currently working.

One result from this latter effort has been the establishment of a legal framework for formation of a marketing cooperative which may be initiated at some point in the future, when and if needed. In addition, current antler sales are based upon the buyer's sorting antler by two grades with significant differences in price paid per pound between the two. A new seven-grade grading system has been devised with third-party evaluation. This system will have the advantage of providing closer ties to world antler prices and encouraging trust between buyer and seller.

In the area of meat marketing, two significant projects are currently under study. In November of 1986, Swedish reindeer operations and marketing systems were studied firsthand. The opportunity to provide a satisfactory field slaughter system for the Alaskan reindeer industry may be one of the results. In addition, the Chernobyl accident may elevate the position of the Alaska reindeer industry in that recent tests show our range and reindeer to have low radiation levels. This may open the door to international meat sales, and, in the long term, we may be able to provide breeding stock for rebuilding European herds.

Veterinary Science

A three-year effort to document drug residues and safety levels in reindeer have resulted in the approval by the Federal government for the use of Ivermectin to control internal parasites. More than 20,000 animals have been treated since approval of the drug.

The long-term effort to find a control for brucellosis has moved beyond a small number of experimental animals to a major field test involving an entire herd in the Nome area. Two vaccines are being

tested, and, within the next few years, it may be possible to control this disease in Alaska's reindeer.

An effort is concurrently under way to adopt procedures used in other livestock industries to identify vaccinates from animals which have contracted the disease. This has implications from an experimental standpoint, but, most important, it may provide an opportunity for live deer sales to other states and/or countries.

We are now documenting the positive effects of Ivermectin on reindeer body size, condition, and the degree of infestation of warble larvae. Correlated with this effort is a study examining the relative effects of warble fly larvae and gastrointestinal parasites on reindeer body size and condition.

A computerized data system has been developed to meet research as well as herd management needs. This system currently contains records for some 12,000 animals on the Seward Peninsula. Information on issues is just beginning to have enough history to be useful and will increase in value with time.

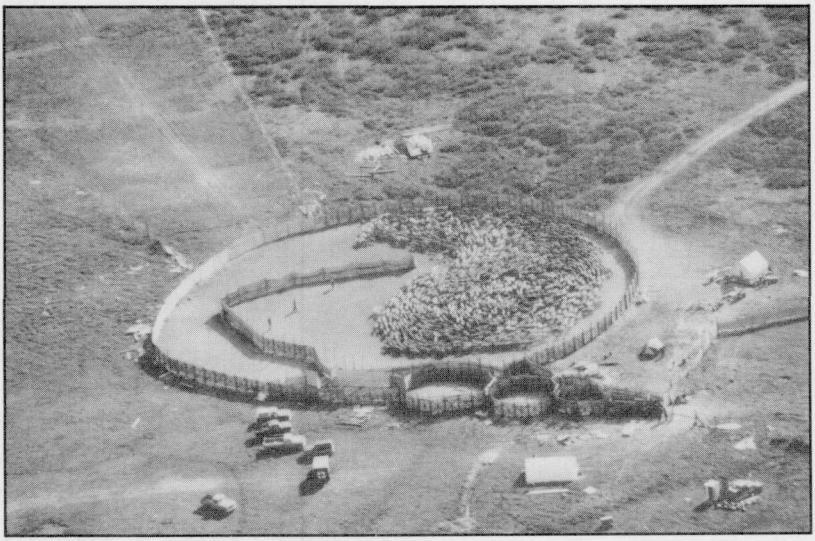
Animal and Herd Management

A long-standing concern, on the part of herders as well as research scientists, has been high stress on reindeer during spring handlings. The stress has caused loss of animals, particularly fawns which are only about two months old. During the past few years a combination of innovations have been introduced during handlings which reduce stress to the reindeer, nearly eliminate injury, and make the job easier for the personnel involved.

The first of these innovations was the introduction of pneumatic squeeze chutes used on red deer in New Zealand. Coupled with this was the use of pneumatic cutters for removing velvet antler. These two innovations benefited adult deer.

An experimental corral designed to facilitate handling of reindeer with minimum stress proved successful during the summers of 1985 and 1986. In addition, a fawn separator was designed which separates fawns from adult reindeer early in the process. This worked exceptionally well, and injury to fawns was nearly nonexistent when patience was used in moving the animals through the corral.

Stress imposed on adult reindeer during spring handling has been reduced through the use of pneumatic squeeze chutes and antler cutters.



This experimental corral employs a portable hook and a fawn separator which reduces stress on reindeer fawns and makes injury nearly nonexistent.

Redirection of efforts to address emerging issues include efforts to determine reindeer fawn production at birth and subsequent recruitment of fawns into the population. As a part of this effort, a determination of the extent and causes of nonslaughter mortality in fawns as well as adults will be undertaken. Female reindeer will also be studied to examine age-related trends in fawn production. A study to determine relationships between and among age, body size, and antler size and quality among bulls, steers, and female reindeer reindeer is underway.

New efforts in the area of herd management include descriptions of herd movement patterns and seasonal habitat preferences of reindeer in the southcentral region of the Seward Peninsula. This, coupled with a feasibility study of herd dogs and food supplements in controlling the distribution and movement of reindeer, could provide advances in herd and range management systems.

Instruction

The School of Agriculture and Land Resource Management offers an undergraduate course on Alaska's Reindeer Industry, taught by faculty involved in the reindeer program. This course serves students who are majoring in natural resource management, as well as students from allied disciplines who may be employed in one of Alaska's resource agencies following graduation. The intent is to provide these students with an appreciation of the needs, problems, and promise of the reindeer industry.

Extension

The Cooperative Extension Service, through its reindeer agent in Nome, provides assistance and field contact for herders as they move toward adopting appropriate new technologies coming out of the applied reindeer research program. The reindeer agent provides a vital link between the reindeer herder and research staff by identifying problems and issues found in the field which require additional ef-

fort on the part of the university team. This extension of new technology is accomplished through workshops, demonstrations, and newsletters, but the real key is one-on-one personal discussions which occur during herder operations.

Summary

The adoption of new technologies by Alaska reindeer herders indicates sound cooperation following the example of the Land Grant university programs proven in the past to be successful in American agriculture. The University of Alaska-Fairbanks research, instruction, and extension programs speak well for an effort which is addressing the concerns of the Alaska reindeer industry.

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