

**S B**

**472**

BILL: SB 472

NAME:

TITLE: "An Act authorizing moose farming."

PRIME SPONSOR: COGHILL

FUNDING : \$000 GENERAL(FNOTE) \$000 OTHER(FNOTE)

CURRENT STATUS: (H) RES STATUS DATE: 04/27/90

Selection=>

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12
HELP	SUBJ	EXIT	MENU	TEXT	PRINT	BWD	FWD		FIRST	LAST	QUIT

Bill/Resolution History

05:25 PM 05/16/90

Page 1

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BASIS Journal Text

04/10/90 SENATE JOURNAL PAGE 3322

\_SB 472\_

The Resources Committee considered SENATE BILL NO. 472 (An Act authorizing moose farming) and a majority of the committee recommended do pass. The report was signed by Senator Fahrenkamp, Chair, and concurred in by Senators Frank, Zharoff and Sturgulewski.

Zero fiscal note published today from Department of Fish and Game.

SENATE BILL NO. 472 was referred to the Finance Committee.

Selection=>

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12
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SB 472

Bill/Resolution Floor Action

Page 2 of 2

Current Status: (H) RES

Jrn-Date	Jrn-Page	Action
1 02/12/90	2417	(S) READ THE FIRST TIME - REFERRAL(S)
2 02/12/90	2417	(S) RES, THEN FINANCE
3 04/10/90	3322	(S) RES RPT 4DP
4 04/10/90	3322	(S) ZERO FN PUBLISHED (F&G)
5 04/20/90	3481	(S) FIN RPT 3DP 2NR
6 04/20/90	3481	(S) PREVIOUS ZERO FN (F&G)
7 04/24/90	3553	(S) RULES TO CALENDAR 4/24/90
8 04/24/90	3570	(S) HELD TO 4/25/90
9 04/25/90	3589	(S) READ THE SECOND TIME
10 04/25/90	3589	(S) ADVANCED TO THIRD READING UNAN CONSENT
11 04/25/90	3589	(S) READ THE THIRD TIME SB 472
12 04/25/90	3589	(S) PASSED Y11 N7 A2
13 04/25/90	3590	(S) COGHILL NOTICE OF RECONSIDERATION
14 04/26/90	3636	(S) RECONSIDERATION NOT TAKEN UP
15 04/26/90	3636	(S) TRANSMITTED TO (H)
16 04/27/90	3623	(H) READ THE FIRST TIME - REFERRAL(S)
17 04/27/90	3623	(H) RESOURCES

Selection=>

PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12
HELP	SUBJ	EXIT	MENU	TEXT	PRINT	BWD	FWD	CMT/JRNL	FIRST	LAST	QUIT



# Alaska State Legislature

## SENATE

*Office of the Minority Leader*

Official Business

P.O. Box V  
State Capitol  
Juneau, Alaska 99811

MEMORANDUM

DATE: April 24, 1990  
FROM: Senator Jack Coghill  
TO: All Senators  
SUBJECT: Passage of SB 472

I introduced SB 472 because we were interested in adding moose to the list of animals which can be domesticated and raised for the sale of their meat. Presently it is illegal to raise moose, and last year one of my constituents was arrested for trying to do just that.

When SB 472 is passed, moose will be domesticated in addition to Musk Ox, and Buffalo. For people in Alaska the passage of SB 472 would facilitate the development of an economic base in rural Alaska.

A number of my const  
moose on moose ranch  
concepts and new ap  
economic base.

SB 472

terest in raising  
be afraid of new  
source and  
up

I strongly urge the ... pass SB 472.

March 23-24, 1940  
Editorial Opinion and Comment of

FAIRBANKS

## Daily News - Miner

Independent in All Things Neutral in None

Other opinions expressed on this page do not necessarily reflect those of the Daily News-Miner.

### Legalize moose farming

In the spirit of encouraging people willing to take risks, especially when they do not dip into anybody else's pocket, we hope the Legislature seriously considers a bill that would make it legal to raise moose on farms.

Rep. Dick Shultz, R-Delta Junction, has filed House Bill 516, changing state law to allow Alaskans to remove "surplus" moose from the wild and raise them for the commercial purposes. Sen. Jack Coghill, R-Nenana, has introduced similar legislation, Senate Bill 472.



Several Interior Alaskans have expressed an interest in raising moose. Steese Highway residents Doug and Opal Welton have been urging legislators to legalize moose ranching. They argue that something should be done to stop the waste of young moose orphaned by starved or road-killed female moose.

Long-time Alaskan Nick Colombo also has proposed a moose farm with 500 acres he owns near Delta. He proposes to capture yearling moose along the Alaska Railroad right of way and bring them to Delta.

He has acquired brush-crushing machines with which he can produce moose browse. Colombo proposes a five-year test program with his ranch. If he's successful, he would market moose meat and share a portion of the yearly increase with the state.

We've proven that barley can grow at Delta, but at a price. Willow and aspen already are taking over a lot of abandoned farmland. The trees are ideal moose fodder.

In our cholesterol-anxious society, moose is an alternative to beef. Many Alaskans prefer the taste to beef or pork.

Moose make more sense as Alaska farm animals in other ways. They can handle our severe winters without a barn.

It's not as if caring for wild animals on farms is a new idea. Our state law already allows surplus buffalo and musk oxen to be granted to people or corporations for the commercial, scientific or education purposes. Colombo's game ranch presently accommodates a breeding herd of 23 buffalo.

Also, Alaska would not be the first place to raise moose on farms. According to Colombo, Sweden harvests 135,000 moose per year on 10 percent of the land mass of Alaska. Compare that to only 6,000 moose harvested by hunters every year here.

We believe moose ranching advocates make a lot of good points. Our fish and game officials in Juneau should support a test as Colombo has proposed instead of obstructing it, as they seem to have done in the past. We hope legislators give the green light to bills proposed by Rep. Shultz and Sen. Coghill.

# Senator John B. (Jack) Coghill

Alaska State Legislature

Box V  
Juneau, Alaska 99811  
(907) 465-4797

Box 55029  
North Pole, Alaska 99705  
(907) 488-0862



## SPONSOR STATEMENT ON SB 472

I INTRODUCED SB 472 BECAUSE OF MY DEEP CONCERN FOR THE NUMBER OF MOOSE WHICH HAVE DIED ON THE RAILROAD TRACKS. OUR BILL WOULD ALLOW PEOPLE TO DOMESTICATE MOOSE, AND TO RAISE THEM ON MOOSE RANCHES.

I SEE THE PROCESS WORKING IN TWO WAYS. FIRST, MOOSE WOULD BE POUNDED UP AND REMOVED FROM THE AREA. SECOND, THOSE PEOPLE WHO SUCCESSFULLY APPLIED FOR A MOOSE RANCHER LICENSE WOULD HAVE THE OPPORTUNITY TO SET UP A MOOSE RANCH.

I IMAGINE THAT THE MOOSE RANCHES WOULD OPERATE UNDER A SYSTEM OF OPEN GRAZING RANGE. MOOSE ARE AN ANIMAL WHICH LIKES TO BROWSE, AND IT WOULD BE BEST TO HAVE THEM CLOSE TO THEIR NATURAL HABITAT. DURING THE COLDER PART OF WINTER THE OWNERS WILL OF COURSE NEED TO KEEP THEM PENNED UP. IT WOULD BE THE RESPONSIBILITY OF THE MOOSE OWNER TO KEEP TRACK OF HIS MOOSE. THE BEST WAY TO DO THAT WOULD BE TO BRAND THEM.

LAND WOULD NEED TO BE PROVIDED TO MOOSE RANCHERS, SO THEY WOULD HAVE AN OPPORTUNITY TO KEEP BETTER CONTROL OF THEIR STOCK. DOMESTICATING MOOSE ON MOOSE RANCHES, WOULD BE NO MORE DIFFICULT

Senator John B. (Jack) Coghill

Alaska State Legislature

Box V  
Juneau, Alaska 99811  
(907) 465-4797

---

Box 55028  
North Pole, Alaska 99705  
(907) 488-0862



THAN DOMESTICATING REINDEER AND MUSK OX.

SB 472 IS GOOD PUBLIC POLICY, IT WOULD CREATE A MECHANISM WHICH  
WOULD PROVIDE JOBS TO PEOPLE IN RURAL AREAS, WHILE SAVING MOOSE  
FROM DYING ON RAILROAD TRACKS.



STATE OF ALASKA  
OFFICE OF THE GOVERNOR

BILL ANALYSIS

DEPARTMENT Fish and Game	DIVISION Wildlife Conservation	BILL NUMBER SB 472	SPONSOR Coghill
SHORT TITLE OF BILL Moose Farming			
DEPARTMENT POSITION Opposed			
PREPARED BY Bruce Dinneford	DATE 3-05-90	COMMISSIONER'S SIGNATURE <i>[Signature]</i>	DATE 3 7 90

SUMMARY

OTHER AGENCIES AFFECTED BY BILL Department of Public Safety, Commerce and Economic Development, Natural Resources	CONSTITUENT GROUP(S) AFFECTED BY BILL Hunters
ORGANIZATIONAL SUPPORT FOR BILL Unknown	ORGANIZATIONAL OPPOSITION TO BILL Unknown
FISCAL IMPACT. <input checked="" type="checkbox"/> NONE <input type="checkbox"/> FISCAL NOTE ATTACHED	

BACKGROUND/LEGISLATIVE INTENT

SB 472 would authorize the transfer of moose into private ownership for the purpose of commercial raising and breeding and/or scientific and educational purposes. The sale of moose meat would be authorized.

ANALYSIS OF BILL/PROGRAM EFFECTS

This legislation goes against a basic Department and Division policy opposed to the private ownership of indigenous wildlife in Alaska. Commercialization of native wildlife is considered not to be in the best interest of the citizens of the state because of a) the possibility of transmission of disease to domestic and adjacent wild populations, which could affect subsistence and recreational hunting, and b) the probable increase in poaching such a law would encourage. It is highly unlikely that a surplus of moose will ever exist beyond a) the harvestable yield of a population, or b) the harvest desires of moose hunters. Enforcement of traffic in bootleg moose meat would be very difficult.

AMENDMENTS PROPOSED

None

PLEASE ATTACH A SEPARATE SHEET FOR ADDITIONAL COMMENTS OR ANALYSIS.

# ALASKA RAILROAD CORPORATION

P.O. Box 107500 • Anchorage, Alaska 99510-7500

February 23, 1990



The Honorable John B. Coghill  
Senator  
Alaska State Legislature  
P. O. Box V  
Juneau, AK 99811

Dear Senator Coghill:

By now you have probably read or heard about the large number of moose dying throughout Alaska this year because of our severe winter. Most of the moose are dying from starvation or are being killed on the highways and on the railroad tracks as they search for food and an escape from heavy snow.

To keep you informed on what is being done by the Alaska Railroad to help reduce the number of moose dying on our tracks, I am sending you a synopsis of some of the measures we're trying or have tried in the past. This may help you and your staff members when responding to your constituents who are writing or calling you about this issue.

If you need additional information on moose, please contact me or Vivian Hamilton, our Corporate Communications Manager, at 265-2675.

Sincerely,

F. G. Turpin  
President and Chief Executive Officer

Enclosure

# ALASKA RAILROAD CORPORATION



P.O. Box 107500 • Anchorage, Alaska 99510-7500

## Measures By The Alaska Railroad To Reduce Moose Mortality

Pilot car: A pilot car--a Ford Bronco equipped with rail gear which allows it to run on the rails--is being operated in front of freight trains. This has produced excellent results in driving moose away from the track. Raw data shows as many as 90 percent of the moose are frightened away. Moose contacts have been reduced substantially since this was initiated.

Creating moose paths: Wherever possible along either side of the right of way between Willow and Talkeetna, Alaska Railroad maintenance crews are cutting 13-foot wide paths parallel to both sides of the track. The snow removed while creating the paths is used to build a berm between the paths and the railroad track to serve as barricades to prevent moose from getting to the track. We have dedicated two Caterpillar tractors to the operation. The moose are using the trails that have been cut but continue to favor the railroad tracks. The Mat-Su Motor Musers, a group of volunteers on snowmachines, also have cut about 8 miles of snowmachine trails through the marshy areas where the Cats are unable to work.

Rubber tire obstacles: At four locations between Willow and Talkeetna, a series of rubber tires have been installed between the rails, nailed to the ties. The tires create an obstacle which cause moose to leave the track. To further guide the moose, tires have been positioned up-right and at right angles to the track in these locations and funnel the moose away from the track. This method was suggested to us by a member of the public and appears to be very successful.

Ice on the ties: This also was suggested by a member of the public. Water was applied to the tracks in several locations to create a layer of ice between the rails. It was believed that the moose would avoid the icy surface and move away from the track, however this did not prove to be true. Creating the ice was extremely difficult because a heated tank car full of water had to be used to keep the water from freezing before it was applied to the ties. Soon after the ice formed a foot of snow fell in the area, covering the ice. However, before the ice was covered moose were seen walking over the icy spots, indicating the measure would not be a deterrent.

Plowing: Routine snow removal along the track includes plowing a 40-foot-wide path in the area where most moose mortality occurs. This appears to have no affect on the moose who prefer the hard-packed surface of the track rather than the plowed area, which despite the plowing remains as deep as 6 feet in some areas because of the slope of the track shoulder.

Brushing: Railroad crews cleared three locations for a total of more than seven miles of right of way last summer, removing the brush which moose find so tempting as a food source. Alaska Department of Fish and Game biologists had suggested this might remove the attraction for moose; however, in the areas where the brushing was done, moose mortality on the track actually doubled this season. We'll continue experimenting with this idea, though, and will clear additional areas this summer or fall.

Noisemakers: The railroad has installed on several types of vehicles small high-frequency sound devices used to deter deer and other large game animals. None appears to have been effective. The railroad also hired the University of Alaska to test the affects of various sounds on moose. The \$15,000 experiment did not produce a sound which would repel the moose. We also have attempted to scare moose with more conventional sounds such as sirens and horns; the pilot car is equipped with a siren and it appears to have some effect.

✓ SB  
472

THOMAS LACKY COGHILL



PO BOX 1  
UNALASKA ALASKA 99581  
907 465 4741

STATE OF ALASKA

3-16-90

JOEL:

I received a copy of your letter to Commissioner Gorsuch on the moose problem in the Mat-su Valley -

Your approach is a good one, plus we need to transplant and for that matter domesticate and move out of the valley the biggest part of them.

Let me know how you make out with her, and if there is anything I can do.

Regards  
Jack

FROM SENATOR JONIE

MAT-SU LOGGERS ASSOCIATION  
P.O. BOX 3063  
PALMER, ALASKA 99645  
907-746-2133

March 4, 1990

Ms. Lennie Boston-Gorsuch, Commissioner  
Department of Natural Resources  
State of Alaska  
400 Willoughby Avenue  
Juneau, Alaska 99801

Dear Commissioner:

We are writing to you concerning the devastating and overwhelming problem the railroad is experiencing with the moose. This year is however more tragic than years past.

The Mat-Su Loggers Association recognizes this problem and its influence on the public, the railroad and most importantly the moose population. We feel if timber were harvested in areas outside of the railroad corridor on a regular and sustained yield basis, the moose would be attracted to these areas because there would be a food source created and readily available to them. This food source would be more accessible because the snows in a harvesting operation are at lower levels due to the movement of logging equipment used in the harvesting process.

The Mat-Su Loggers Association has a viable resource of equipment and qualified personnel available. One possible solution to this emergency situation of moose and railroad is to enter into a End Results Contract with members of the Mat-Su Loggers Association. The loggers would be compensated by the state to harvest the timber away from the railroad corridor, thus drawing the moose off and away from the moving trains. The state would have sole possession of the harvested timber, the railroad would transport this timber to the Valley and the state could then sell the timber to recover some of the cost involved in this method.

page 2  
Mat-Su Loggers Association Letter  
March 4, 1990

The state needs to recognize proper and multiple use forest management as a tool for correcting and enhancing habitat development for our wildlife. They also must not forget the positive impact this cooperative agreement would have on a sagging Mat-Su Valley economy.

Commissioner, the organization and I encourage you to contact us. Our Board of Directors would be happy to schedule a meeting with you in the very near future. Please call at your earliest convenience.

Thank you.

Sincerely,



Joel M. Stefanski, Chairman  
Mat-Su Loggers Association  
746-2133 or 745-9726

mbs

For your convenience additional daytime contact numbers are:

Mr. Dave Cruz, Board Member  
746-3144

Mr. Greg Bell, President  
563-3436

cc: To all Legislators



STATE OF ALASKA  
SENATE

3-16-90

Steve:

Thanks for contacting me on my Moose Bill - THERE ARE A LOT OF "What ifs" in every undertaking and your thoughts ARE A PART OF THE SYSTEM TO GET THIS PROGRAM OFF AND GOING -

My original thought was OPEN RANGE GRAZING in the NATURAL HABITAT by HAVING VALLEYS OR AREAS CLOSED TO HUNTING FOR PURPOSES OF MOOSE RANCHING - USING THE AGED OLD SYSTEM OF BRANDING AND THE RANCHERS RESPONSIBILITY TO CONTROL HIS ANIMALS. FOR MORE CONFINED AREAS LIKE YOU ARE MENTIONING - WOULD NEED LOTS OF WORK BUT WE NEED TO START - IT WOULD SURE GIVE VILLAGES AN ECONOMY TO WORK TOWARD

Regards  
Jack

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March 5, 1990

The Honorable John B. Coghill  
 State of Alaska Senate  
 Juneau, Alaska

Dear Senator Coghill:

I read with great interest your recent article on sanctioned release of Rail Right-of-Way captured Moose to private individuals.

I am immediately presented with four problems;

1. How to contain the animals in a given area?
2. The amount of land, in a natural habitat setting, necessary for a determinant number of Moose.
3. How to finance such a project?
4. How to feed the animals?

If I assume a wire mesh fence approximately 9 feet high surrounding, say five acres of timbered land, the costs of such an endeavor are going to be extremely high. In addition, a water source, and possibly 2 or 3 fair size ponds, is mandatory.

Since Moose are primarily browsers, unless a captive adjustment to hay or pellet feed is possible, a five acre woodland area is incapable of sustaining even 2 or 3 animals on a continuous basis.

In order to finance such an operation, basically experimental in nature since I have no knowledge of its ever being done before, are there grants or loans available? And if so, from what sources and under what terms and conditions?

I have little doubt that given the time and resources, Moose as with most of the other ungulates, could be domesticated to a point, without losing their natural attributes.

Can you supply me with more information on this project?

Thank you.

Sincerely,

Steve Booth  
 Box 663  
 Delta Junction, Alaska 99737

Tanana Chiefs Conference, Inc.

122 First Avenue  
Fairbanks, Alaska 99701-4897  
(907) 452-8251  
Fax (907) 451-8936

1-500-557  
5 Feb 90

Dear Senator Coghill,

I've spoke with Dr. Wood today.  
Which we've talked in the past many  
times on this subject of "MOOSE FARMING"  
As we both have discussed this also. I  
strongly support your efforts and if  
you need more info on this matter, please  
call me or Dr Wood or Dr Drew AND  
there are many others. We must remember  
we're not inventing a new wheel and other  
countries AND the state has study this

Tanana Chiefs Conference, Inc.

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badly needed venture to death.

I think it is about time that we  
give this our full attention and I  
support all your efforts. Please call  
if any questions.

Respectfully

Alfred S. S. S.

To Jack Coghill, 2-4-90

Hello Senator, first I'd like to wish you all the luck in the world on your quest for Lt. Governor! I hope to God that you get the job.

Second, I'd like to get right to the point on the subject of my dreams, and hopefully, my future

Would you Jack Coghill sponsor a bill or ammendments to 3 of our Title 16 - game laws?

All we need to do is make ammendments to Sec. 16.05.331  
Sec. 16.40.010  
Sec. 16.40.020  
to include "Moose"

I have a dream Jack, a vision, someday I will raise orphans and create a dynamic Industry in this State. I will raise moose to ride, work, and feed people. Create cottage industries throughout the State.

I believe that by salvaging these lives we could make a dent in the poaching problem (after you've bottle fed a moose calf you wait shoot cows) I think that by allowing the inmates from our jails and prisons to become involved in saving moose along the railroad tracks, (by shoveling getaway routes for them in winter, and catching orphans in spring) we could help in their rehabilitation.

(Colorado has inmates help breaking wild mustangs for the BLM) I think that by allowing interested people, especially in remote native villages to become involved in rearing and training these animals, we might be able to lure some away from alcohol & drugs.

I'd even like to see the creation of "Moose Racing" in this state that would create a one-of-a-kind experience for attracting tourists and Alaskans alike. (you know the revenues derived from horse racing)

All this would be in addition to a red-meat (low cholesterol) industry, also tanneries for manufacture of leather and hide for crafts and clothing.

Yes! They are much more than just moose Jack!

They are a part of our lives that could become a way of life for many people here in Alaska.

If you really look at it, the moose has already become "Domesticated" through time. So many of them have surrendered their natural defenses, and chose to live in our backyards.

A great Soviet biologist once said: (I.V. Mikhurin) "We cannot wait for gifts from nature, we must take them from her, that is our task."

I think what he means is pretty simple. If in fact, we are the superior species, we must act now. We must take these orphans and create a future for them and for us all.

There is nothing natural about a train or truck doing 60 m.p.h. that kills the mother and leaves helpless calves to die. We must take the responsibility upon ourselves to make the best of a bad situation.

I've campaigned for "Moose Farming" for two years now. The general public is all for it, but the F&G people say no. It amazes me how they get thousands of dollars each year to raise their "tame moose herds" at the MRC but we went to jail for trying to raise one orphaned calf! (It's a crime)

The moose is the Ultimate machine (mechanism) for the north.

There is something so very special about wild animals, that seeps right into your soul.

The fact that this State continues to only allow for the slaughter of these animals is "UNEXCEPTABLE"

I'd like to see some action down there in Juneau this session, I want this on the table !!

We're even considering trying to get this issue on the ballot and let the people vote on it. One way or another this dream will come true.

Look back at all the opposition Mr. Teale had to overcome when he suggested that we "Domesticate" the Musk-oxen.

Well Jack, you take care now, I'll be looking forward to a response ASAP!

You are my Hero Jack, Dick Shultz is on our side also.

Go get em Tiger !!

~~Sincerely,~~  
Sincerely,  
Doug We Ho.

Sb472



# Alaska State Legislature

REPRESENTATIVE DICK SHULTZ

P.O. Box V  
Juneau, Alaska 99811  
(907) 465-4940  
Home: P.O. Box 487  
Tok, Alaska 99780

Member  
Finance Committee

January 30, 1990

All Legislators  
P.O. Box V  
Juneau, Alaska 99811

Dear Colleagues;

The slaughter of moose along the Alaska Railroad has got to stop. Not only do we lose significant portions of our moose populations, the meat is often rendered unfit for human consumption as the moose are literally exploded on impact by A.R.R. locomotives.

I have attached for your review a proposal by Mr. Nick Colombo from Delta Jct.. Mr. Colombo has travelled to Juneau and has presented his plan to the Legislature and Department of Fish and Game on several occasions. Presently Mr. Colombo has retained two defunct tracts of Delta Ag. land. He has spent many thousands of dollars of his own money to put up chain link fence and has created prime buffalo range. Presently Mr. Colombo has a herd of some thirty buffalo which are doing very well. He has spent extensive time researching game ranches and has corresponded with researchers, biologists and Canadian University research groups. In short Mr. Colombo is very serious about his endeavors. His obvious success with buffalo ranching can be repeated with moose if he is allowed to capture and transport them to Delta. To personally witness what Mr. Colombo has in mind, one need only travel to Whitehorse and view one of the most successful game ranches in North America. The Canadians once again have out distanced us in dealing with natural resource development.

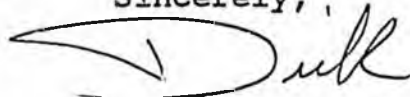
I, and Mr. Colombo have met with Fish and Game officials and have proposed a joint venture in which moose would be removed from the railroad, placed on his Ag. tracts, and they would be kept and studied. Here is an example where a private person will fund a substantial portion of a project, provide a place for the endangered moose, and allow Fish and Game to conduct research. The response to date from the Department has been cool. Even though they promised to visit Mr. Colombo's operation this summer, they failed to do this.

I enlist your support for this project for several reasons.

1. We will reduce the moose slaughter.
2. We will make good use of Ag. land which otherwise would grow back to scrub.
3. Mr. Colombo has the financial and physical resources to make this project work.
4. There is little expense to the state when one considers the cost of the present carnage which continues year after year. (Figure each moose to be worth in excess of \$ 2000.00)
5. Fish and Game would have a moose research station at little public expense.
6. Tourists will have great viewing opportunities.
7. Last, but not least, I have not heard of any better solutions, have you?

Thank you for taking the time to review Mr. Colombo's proposal. It is time we attempt a solution with action instead of words and studies. We have everything to gain and absolutely nothing to lose.

Sincerely,

A handwritten signature in cursive script that reads "Dick Shultz". The signature is written in dark ink and is positioned below the word "Sincerely,".

Dick Shultz



# Alaska State Legislature

REPRESENTATIVE DICK SHULTZ

Member  
Finance Committee

PO Box V  
Juneau, Alaska 99811  
(907) 465-4940  
Home: PO Box 487  
Tok, Alaska 99780

January 30, 1990

All Legislators  
P.O. Box V  
Juneau, Alaska 99811

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I have attached for your review a proposal by Mr. Nick Colombo from Delta Jct.. Mr. Colombo has travelled to Juneau and has presented his plan to the Legislature and Department of Fish and Game on several occasions. Presently Mr. Colombo has retained two defunct tracts of Delta Ag. land. He has spent many thousands of dollars of his own money to put up chain link fence and has created prime buffalo range. Presently Mr. Colombo has a herd of some thirty buffalo which are doing very well. He has spent extensive time researching game ranches and has corresponded with researchers, biologists and Canadian University research groups. In short Mr. Colombo is very serious about his endeavors. His obvious success with buffalo ranching can be repeated with moose if he is allowed to capture and transport them to Delta. To personally witness what Mr. Colombo has in mind, one need only travel to Whitehorse and view one of the most successful game ranches in North America. The Canadians once again have out distanced us in dealing with natural resource development.

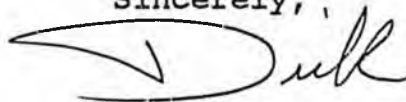
I, and Mr. Colombo have met with Fish and Game officials and have proposed a joint venture in which moose would be removed from the railroad, placed on his Ag. tracts, and their they would be kept and studied. Here is an example where a private person will fund a substantial portion of a project, provide a place for the endangered moose, and allow Fish and Game to conduct research. The response to date from the Department has been cool. Even though they promised to visit Mr. Colombo's operation this summer, they failed to do this.

I enlist your support for this project for several reasons.

1. We will reduce the moose slaughter.
2. We will make good use of Ag. land which otherwise would grow back to scrub.
3. Mr. Colombo has the financial and physical resources to make this project work.
4. There is little expense to the state when one considers the cost of the present carnage which continues year after year. (Figure each moose to be worth in excess of \$ 2000.00)
5. Fish and Game would have a moose research station at little public expense.
6. Tourists will have great viewing opportunities.
7. Last, but not least, I have not heard of any better solutions, have you?

Thank you for taking the time to review Mr. Colombo's proposal. It is time we attempt a solution with action instead of words and studies. We have everything to gain and absolutely nothing to lose.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dick Shultz". The signature is written in dark ink and is positioned below the typed name "Dick Shultz".

Dick Shultz



P.O. BOX 966, DELTA JUNCTION, ALASKA 99737

D. Nick Colombo

(907) 895-4388

PROPOSAL

1. I be allowed to capture one hundred (100) head of yearling moose per year from the Alaska Railroad right-of-way.
2. I would transport them to the Delta area, where there is 100,000 acres of cleared land suitable for moose habitat.
3. Fence the required number of acres to protect the herd.
4. Raise them as domestic animals for a red meat industry.
5. Set up a visiting program to educate not only the tourist but the people of Alaska.

BENEFITS PRODUCED BY THIS PROPOSAL

1. Fewer moose kills will result along the Alaska RR, thus saving time and money for clearing, as well as producing better PR for the railroad.
2. The state has thousands of acres that are laying fallow because of the unsuccessful attempt at farming in the Delta area. I would and could improve the fallow land with fencing and making the farm a success.
3. This would not interfere with the moose available to the hunter or subsistence user because the moose are currently being killed. I am requesting only yearlings which are not legal bounty anyway.
4. Alaska imports most of its red meat from the lower 48 or from Australia. We could not only furnish exotic, low cholesterol meat to Alaska but begin an export business to the world.
5. Delta is economically depressed with the state foreclosing on farms, homes and commercial properties. This could help recover the economic situation in Delta Junction.
6. Trucking would once again become a profitable industry in the state. Back-hauling would be cheaper, sparking the industry even further.
7. With the extreme colds, food supplies ran short in Alaska because of transportation problems. We could become more self-sufficient in providing food and products from ourselves.
8. As a private game farm, the hassles at State Fish and Game would not be a real problem. Political pressures would be relieved at the State level.

This is not setting a precedent, since reindeer, musk-ox and bison farms have already been established using our state's wildlife to originate these managed farms.

Please consider this proposal. I will be more than happy to furnish any information that you want or need. I have done extensive research in this project and am convinced that it can work. I am therefore asking the legislature to consider changing the law to allow me to raise moose as a domestic animal, creating a red meat industry, bearing in mind that my program would be a result of capturing the moose on the railroad before they are killed and a total loss to the people and the State of Alaska.

29 JAN 90

Dear Senator Fahrenkamp,

I applaud your effort to allow Alaskans,.. and interior Alaskans to attempt to feed ourselves,...

Enclosed is a little information and what I consider to be a GREAT IDEA,..

Please read the enclosed material and think about it,..

I believe the idea has obvious merit,..

There is no real ALASKAN reason for denying people the right to domesticate ALASKAN animals for food and fur.

I am a registered voter,.. and I am going to continue to spread the word concerning the enclosed material.

Many thanks for your efforts concerning the fish farming.

With Best Wishes,

John Prewett    Box 73223    FBKS,AK    99707



(a reply,.. expressing your position would be appreciated)

# Fahrenkamp to fight bill to ban salmon farming

JUNEAU (AP)—Republican Sen. Dick Eliason of Sitka is leading a strong push to ban salmon farming in Alaska before it gets started, but the bill first must clear rough water in a Senate committee.

Eliason's bill is co-sponsored by three-quarters of the 20-member Senate. But the chairwoman of the Senate Resources Committee, Sen. Bettye Fahrenkamp, is not one of its supporters, and the measure is in her committee.

Fahrenkamp, D-Fairbanks, said Alaska will lose its position in the marketplace if it does not join the worldwide move toward pen-rearing of salmon. Several other countries already are heavily involved in salmon farming instead of relying solely on the commercial harvest of wild stocks, she said Monday.

"For us to just without further study... say we're not going to do it at all is asinine," Fahrenkamp said.

Unless legislation is passed this session to ban or postpone the start of fish farming in Alaska, a two-year legislative moratorium on the pen-rearing of salmon and other species will expire July 1.

However, a lack of state regulations governing salmon farming would delay any commercial activity past July 1, said Rodger Painter, director of the Alaska Mariculture Association in Juneau.

Without a legislative ban on salmon farming, the Department of Fish and Game likely would have to start preparing regulations to govern the new industry.

Fahrenkamp favors legislative action this session to allow the start-up of salmon farms in Alaska, with strict state regulation.

Pen-reared salmon already are produced in Norway, British Columbia, Chile, New Zealand and 10 states, Painter said. Avoiding the



**SEN. BETTYE FAHRENKAMP**  
*Favors farming*

industry in Alaska won't help avoid competition in the marketplace, he said.

On the other side of the debate is Eliason and 14 colleagues who support the position of Alaska's commercial fishermen, who largely oppose fish farming.

25 JAN 90

**B**  
**B**

# Marketable buffalo making comeback

DENVER—There's more capitalism than altruism these days behind the resurgence of the once nearly extinct buffalo—the shaggy animals are easier to raise, fetch more per pound and are lower in fat and cholesterol than beef.

The buffalo, which once roamed the Great Plains like a moving black robe, was hunted for meat and hides in such great numbers that historians say by 1889 fewer than 600 remained. Since 1970, the number of buffalo has doubled in this country to about 60,000, according to the American Bison Association.

—The Associated Press

16 JAN 90

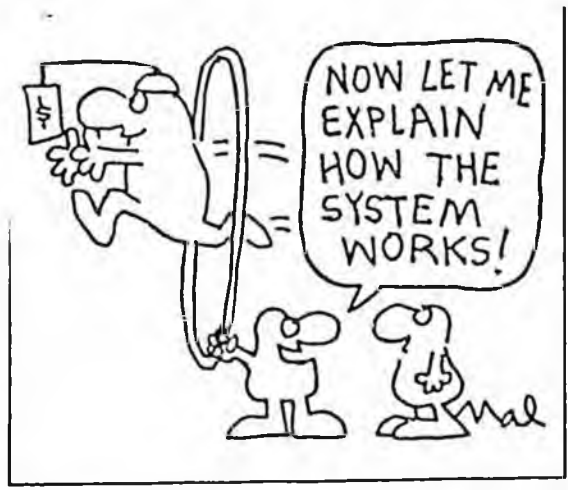
AK COULD HAVE HERDS OF BUFFALO LIKE SOME STATES HAVE COWS,...

BUT AK POLITICIANS LIKE THE STATUS QUO,...

(AK imports about \$300 million worth of meat each year,...

ALASKAN,.. just THINK about it.

ps: Sweden produces about 130,000 head of domestically raised moose per year.



DON YOUNG  
CONGRESSMAN FOR ALL ALASKA

ANCHORAGE OFFICE  
11 RAYBURN BUILDING  
TELEPHONE 202/225-5765

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# Congress of the United States

## House of Representatives

Washington, D.C. 20515

January 10, 1990

DISTRICT OFFICE

701 C STREET, BOX 1  
ANCHORAGE, ALASKA 99501  
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Rt. 1, Box 1605  
KENAI, ALASKA 99611

Box 177  
KODIAK, ALASKA 99612

P.O. Box 1860  
NOME, ALASKA 99762

Mr. John Prewett  
Box 73223  
Fairbanks, AK 99707

Dear Mr. Prewett:

Thank you for your letter regarding proposals for domestic husbandry of moose and caribou. I appreciated hearing from you.

I have long believed that wild game ranching would provide a reliable food source in many areas without disrupting the natural environment. I therefore think that Mr. Colombo's project should be encouraged. However, Mr. Colombo will need to seek permission from the State Legislature and the Alaska Department of Fish and Game, not from the U.S. Congress. I therefore encourage you to write to your State legislators and ask for their support.

Please continue to keep me informed of your views on this and other matters.

Sincerely,

A handwritten signature in dark ink, appearing to read "Don Young", written over the printed name.

DON YOUNG  
Congressman for all Alaska

DY:rmm

# Why not game ranching to reduce ARK kill?

Moose have been killed on the railroad since it was built. With the nature of the terrain and the heavy snowfalls impeding their movement and covering their food supply, the animals will continue to seek out the railroad bed and be killed.

Various solutions have been tried, all very costly and apparently without success. The moose kill in 1987-88 between Anchorage and Fairbanks was more than 400 head. If we average that out over 50 years, the number killed and their offspring would far exceed the number killed by sports hunters each year.

I am firmly convinced that the only solution in the foreseeable future would be to round up the moose and relocate them to another area. I have therefore submitted a proposal to the Legislature to allow me to round up 100 head of yearling moose per year, transport them to Delta and raise them as domestic animals for a red meat industry.

I have established a game breeding farm in the Delta Clearwater area with a herd of bison and will soon add reindeer and elk. Adding moose will not create any problem.

I am confining the animals with New Zealand game fence, specifically designed to confine large animals and for predator control, and approved by the Wyoming Game Department and the University of Alberta, which has a program for wildlife management.

There are numerous sources of information on moose management. The Alaska Fish and Game has done intensive studies in the

## Guest Opinion

By NICK COLOMBO



Kenai Moose Reserve and other locations. The University of Alaska and the University of Alberta have conducted studies. Moose management is used in Sweden to produce 130,000 head of moose per year as a commercial enterprise.

It is not to farfetched to consider that Alaska, with its vast land mass, sparse population, inexhaustible supply of water and geographic location, could become the red meat bread basket of not only the Pacific Rim countries, but the Lower 48 states as well. Demand for low-cholesterol game meat will exceed the supply for the next 100 years.

It is ridiculous to import \$300 million worth of meat into Alaska each year when we could produce it here.

Moose habitat can be created by simply chaining down the black spruce, which covers millions of acres and produces little game, allowing willows to grow and clearing enough to plant oat hay for winter feed. There is a minimum of environmental impact.

Moose are indigenous to Alaska, eat scrub no other animal can survive on, are less subject to disease, require a minimum of care, survive in any weather conditions and have a 100 percent calving rate, making them an ideal red-meat producer.

Game farms are the fastest growing industry in the United States, but in Alaska there is a consensus that game farms are against motherhood and apple pie. In spite of vast expenditures by the state for moose management, the harvest is far short of the demand. I don't believe the hunters should object to my proposal as I would only capture yearlings that would be killed by the train before ever reaching maturity. Therefore, I believe it is time for the private sector to be allowed to establish game ranches and raise the animals for a red-meat industry.

I am certain I can work out a program with the railroad for access to the right-of-way to capture the moose. I would capture and transport the moose with no expense to the state.

With the downturn in the economy, Delta is a depressed area. It depends mainly on state and federal employment and that is subject to be cut at any time. My program would result in a boost to the grain and hay farmer, added transportation, slaughterhouse and other necessary infrastructure, thereby creating year-around employment.

The local high school students,

many of whom are farm-oriented, have expressed a keen interest in my program. Mike Carlson, the agriculture teacher, has stated he can set up a program to teach game management., thereby giving me trained personnel which I can employ and they would remain in the area.

If a fish is said to be worth a barrel of oil, then a moose would be worth 200 barrels, and as a renewable resource, would go on producing long after the oil has run out.

I feel my program is positive in every respect and a complement to the state and people of Alaska.

The present rhetoric in the state is that we should be more self-sustaining and produce more products for export. Therefore I am asking the Legislature to consider the proposal I have submitted to them.

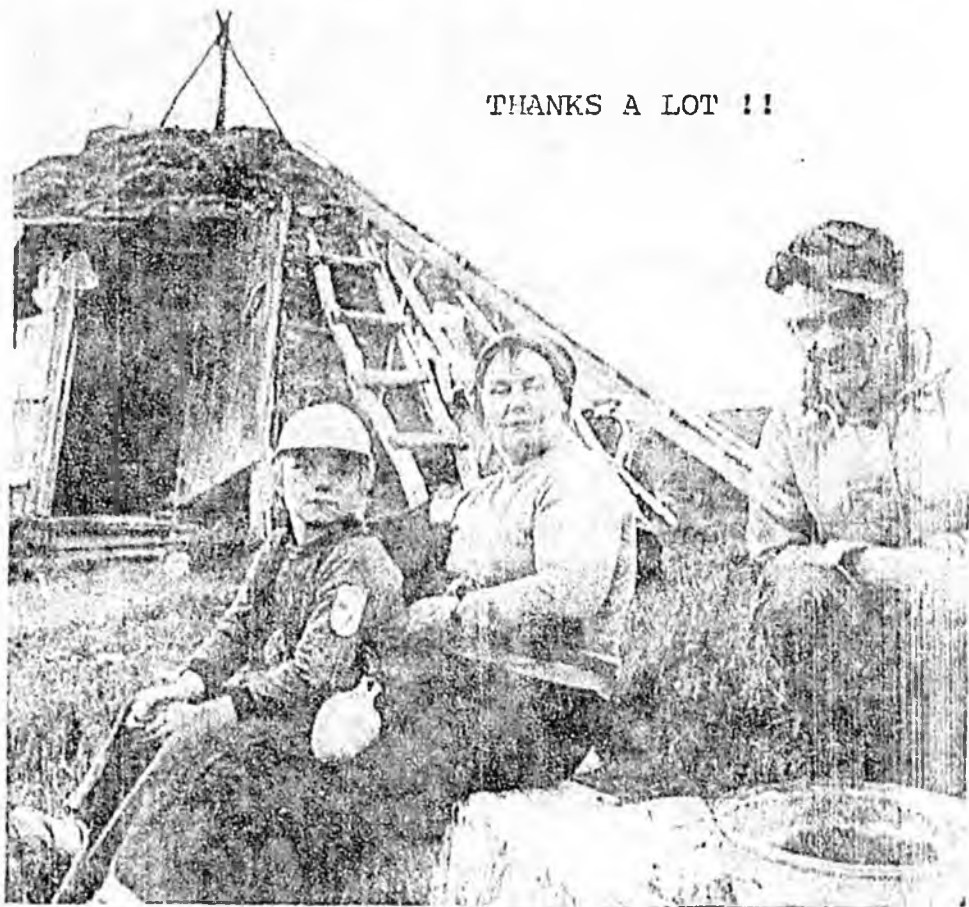
*D. Nick Colombo owns the Delta C Game Ranch in Delta Junction, which raises buffalo and soon will raise reindeer and elk.*

GREAT IDEA!

Printed 1988 or so

Fairbanks

THANKS A LOT !!



This Alaskan family, formerly in the mining business, wants to thank the environmentalist for helping them see the evil of their former way of earning a living. MERRY CHRISTMAS!!

Another issue!

## ALASKA GAME RANCHERS ASSOCIATION

Because there is a need for economic opportunities in our villages today, we would like to cultivate your support in the proceeding of a pilot project for moose ranching. On Sunday, March 11, 1990, a Resolution was passed by the TCC Executive Board of Directors showing support.

Raising orphaned moose for local consumption and export is culturally compatible with subsistence activities and will identify the procedures, methods, and markets best suited for the development of such an industry that can be introduced to Native communities.

We propose that the first moose-farm be developed at <sup>Weltaw</sup> ~~Welton~~, 36.4 mile on the Steese Highway, being situated in prime moose habitat and a reasonable striking distance from Fairbanks and its veterinarians, biologist and hardware... Making exposure easiily accessible in these early stages will be detrimental to the development of this versatile animal. We have the assets needed for this project to begin when that first calf gets abandoned by the all too often unnatural causes of death to the mother on our highways, railroad tracks and neighborhoods today. We are ready to "put moose to more use". These orphans can be the beginning of a new tomorrow for our people living in our rural villages that have no other industry or economic base.

As so called "progress" eats up more and more habitat creating more and more danger zones for the moose and lots of other animals too, we must take on the responsibility of sound management. And just as millions of gallons of oil have ruined our Prince William Sound, the present "Let nature take its course" attitude has got to change. The thousands already dead and done are too many and there will likely be thousands more, unless you and I do what we've go to do. It's not just the 'white-mans' mess, its the moose' mess too, and that motivates me. And it should motivate you.

\*\*\* There are two bills: H.B. -516 and S.B. -472, being considered by the legislature in Juneau right NOW. It is NOW that we have to make our support known, and heard loudly, and clearly, that we are going to step into the management of our wildlife. The moose has as much to do with our culture as any living thing, and has got to be preserved and propagated into our future to meet our subsistence and economic needs.

\*\*\* Please contact your Senator or Representative in Juneau and voice your support today!!! You can write, call, or even send a public opinion from the Legislative Affairs office here in Fairbanks.

And if you would be interested in joining the ALASKA GAME RANCHERS ASSOCIATION and becoming a part of a growing movement in Alaska today, please contact us at:

A.G.R.A.  
6808 Steese hwy  
Fairbanks, Alaska 99712

Thank you for your help and concern.

Sincerely yours,

Doug and Opal Welton

*Doug & Opal Welton*

*Radio phone:  
479-4409 after beeps  
dial 14159  
on between 8am-10am  
and 6pm to 8pm  
Keep trying*

## POSSIBILITIES OF USING MOOSE FOR MILK PRODUCTION

Because of its qualities of composition, moose milk appears to be a very important food product, especially for northern regions on a subsistence economy and with under-developed animals husbandry where there is found a notable shortage of fresh milk.

Moose milk is a pure white color, much thicker than cow's milk, without smell, having a characteristic salty-astringent taste, easily turned (curdled). When added to sweetened coffee or tea, it acts like cow's cream. When poured in a thin stream, the milk quickly evaporates and in the dry state resembles cheese in taste.

Moose milk shows a very high quality, it is significantly more nutritious than cow's milk. Studies show that butter made from moose milk contained much more vitamin A, C, and D. -- 1956 - EXPERIMENTAL MOOSE - FARMING PECHORA - ILYCH NATIONAL PARK, RUSSIA

A female moose in the wild gives an average of 150 liters of milk per year. Due to regular milking, the lactation period may be extended from four to six months. On the Moose farm, after six years, the best female gave almost six liters daily, 402 liters per year. -- SOVIET UNION, EXPERIMENTAL FARMING IN STATE NATURE PRESERVE OF 1962, GRZIMAK ANIMAL LIFE ENCYCLOPEDIA VOL. 13

Early in the morning in answer to the bugle call, the moose appear on the edge of the forest, there are already more than 40 moose at the Kastroma Farm, which is only eight years old. In answer to the bugle call the moose come out of the forest to the pens. Salted water is ready for them and milk and oatmeal for the calves. Some Moose cows yield

as much as six quarters of milk a day. And what milk! It is five times richer in protein and fat than ordinary cow's milk. It churns to excellent butter. The moose are not at all fussy about their feed, and that makes them ideal domestic animals in forested and marsh - covered regions. A year-old female strayed from a herd, two years later the animal accidentally came upon the person who had been it's herdsman. Hearing the voice, it ran up to him, sniffed at the man's face and nosed and poked its muzzle into his pocket, where he used to keep tidbits for the animals. She followed the man some five or six miles to the farm and never left the place. It is interesting that the moose did not turn wild after two years of living with wild moose. -- KOSTROMA AGRICULTURAL EXPERIMENTAL STATION SOVIET LIFE, MAY 1974

It has been established that the milking process does not present any difficulties or danger to the milkers. The moose cows return punctually from their pastures to the farm to be milked. At first a milk yield of 75 to 150 litres per cow was obtained for the lactation. Fourteen years later the top figure has been boosted to 430 litres per cow by various milking methods.

Moose milk contains, on average, 10 percent of fat, some .15 percent of protein, and many vitamins. Appreciable differences in milk yield between cows suggests possibilities of boosting milk productivity by selective breeding. -- THE JOURNAL OF THE FAUNA PRESERVATION SOCIETY, DEC. 1964

## UTILIZATION OF MOOSE FOR SUBSISTENCE VALUE

The management of domesticated moose is a matter of great importance as sources of meat, of milk, and as draught animals, (tools, clothing, jewelry, animal feed, fertilizer).

As a source of meat the domesticated moose is highly productive. First, the loss of meat due to wounded animals getting away when hunted in the wild is avoided. Second, domestication permits the meat productivity of moose to be managed by selection and feeding. Third, castration of Bulls excludes the appreciable losses in their meat output caused by the abrupt drop in their fatness and weight during the mating season (Sept.-Oct.). Sexually mature domesticated bulls, during the mating period, will lose up to 20 per cent of their meat output, on the other hand, castrated domestic bulls remain in their well fed state until the beginning of winter, when the slaughter of meat animals begins.

In natural conditions, when the most nutritious green fodder is exhausted the calves stop growing for the whole winter. Consequently, six-months-old and year-old calves usually have the same live weight. But when the domesticated calves on the farm were given additional forage in the form of potatoes and fodder root crops, they continued to gain weight through out the whole winter, by as much as 40-80 kg. This enabled the farm to obtain year-old calves with the record live weight of 208 kg. ---THE JOURNAL OF THE FAUNA PRESERVATION SOCIETY - DEC. 1964

## Moose Farming?

The Tanana Athabascan Indians, who lived around Fairbanks before the foreigner came, purposely modified the environment to produce more food. The Indians recognized that spruce forests provide no food for moose and that they set fires to produce more moose browse.

Ivar Skarland is one of the few to have studied the early ways of life. --- ALASKA SCIENCE NUGGETS - NEIL DAVIS (PAGE 146)

Moose meat is low in calories and cholesterol making them very attractive for production and world wide markets. They grow 5 lbs. a day for the first six months.

The moose has been allowed to pasture unrestrained from October to the end of May - during the entire time the moose farm has been in existence, there has not been a single instance of loss of domesticated to roaming wild moose. The rearing and training moose to conditions of domestication absolutely eliminate the seasonal migrated instinct. The application to domesticated moose allows a many - fold increase in economic return over what we receive from wild moose by managed hunting - EXPERIMENTAL MOOSE FARMING 1956 - RUSSIA

And all the above is in addition to the resources that will be made available from these animals. The hides can be tanned and made into clothes, crafts and collectibles, the bones can be made into tools (fleshing tools), crafts (dogsled made from jaw bone), or ground for fertilizer or sold to a dog food industry. The antlers can be made into crafts (knifehandles, belt buckles...) or perhaps ground for the orient (Elk horn in velvet sells for \$26.00 an ounce)

and even the hard toes can be made into jewelry (resembling the look of baleen).

This one resource would be profitable for many different and diverse industries, ranging from tourist businesses, airlines, hotels, garages, filling stations, photographers, truckers tanneries, biologist, teachers, vets, and artists and craftmans and on and on...

## RAISING MOOSE

In 1949, the experimental moose farm started out with 14 moose under the age of three years old, with the idea of raising a domestic animal, and today there are domesticated animals of the third and fourth generation in the herd, all direct descendents of the first fourteen. New-born calves up to five days old were found to be the most suitable for bottle-feeding on cow's milk and for domestication. They become attached for life to the individual feeding them. Such calves can be turned loose without fear that they will run away. At the age of three the tame animals usually bear their first calves and in subsequent years reproduce regularly. Some nearly always have two calves; others usually one calf; while others the chances of producing one or two are about the same. The farm has thus disproved the widely held belief that moose do not reproduce in captivity. Moreover some of the animals are now twelve years old and only one adult has died of disease. The best results seem to come from a system of year-round unrestricted grazing, with the animals unattended by a herdsman, periodically rounded up for check-ups and held in temporary corrals during the calving and mating season. -- THE JOURNAL OF THE FAUNA PRESERVATION SOCIETY, DEC. 1964

Calf Moose are born anytime between April to the beginning of June, usually in mid-May. They grow up quickly. Bottle-raised male roe and red deer regularly turn vicious and dangerous when they grow up and come into rut. This has rarely been experienced with the largest and strongest of deer, the moose. The reason maybe that male moose in rut are quiet and gentle. Since the moose becomes tame so easily, their young have often been bottle raised in the Baltics, Sweden, and Russia. From 1946 until 1948, moose were first captured when one to three days old for the moose

farm. Such animals became extremely tame and attached to humans. -- GRZIMAK ANIMAL LIFE ENCYCLOPEDIA 1962 - VOL. 13

New born calves up to five days old were found to be the most suitable for bottle-feeding on cow's milk and for domestication. They do not show any fear of man and, having lost their mother, follow him around on their own accord. They readily drink cow's milk from a feeding bottle and become attached for life to the individual feeding them. Such calves can be turned loose without fear that they will run away. At the age of three years old the tame animals usually bear their first calves and in subsequent years reproduce regularly. When calves were taken away from their domesticated mothers immediately after birth and bottle-fed, the milk cows were found to transfer their maternal instinct to the milkers. -- THE JOURNAL OF THE FAUNA PRESERVATION SOCIETY - Dec. 1964.

## UTILIZING DOMESTICATED MOOSE FOR TRANSPORT

Moose possess many qualities of value as a draft animal. -- easily traverse: bogs, densely littered forests, deep snow, have great physical strength, are provided with food anywhere, in winter do not require warm quarters, and are docile to handle. At the same time these animals have their special biological peculiarities. One characteristic is their sedentary way of life. Utilizing moose for draft requires purposeful preparatory training of them from an early age. Practical work on the moose farm shows that there exists well-defined individual variations in the amount of work a moose can do. In this regard selective culling has a great effect on the creation of work moose. A program for work moose must take into account seasonal variations in the yearly cycle of the moose. Moose have the greatest capacity for work in the autumn months. However, using greatly aroused and vicious bulls for work at this time is impossibly dangerous, and after the rut, they lose up to 20% of body weight. Hence, it is concluded that bull moose in general are of little use for work, and it is advisable to use nothing but castrated moose for this purpose. Castration causes moose to become very gentle and tractable, taking no part in the rut. They continue to gain body weight, and therefore, in autumn and the first half of winter, they are in excellent working condition. Castration does not adversely affect growth of moose (even if it is carried out on a four-month old) and promotes apparent increase in the hardiness of these animals. With the approach of warm spring and summer weather the work efficiency of moose is reduced, since the life activity of nearly all moose is lowered at this time and are mainly active at night and spend most all day lying in shady and cool parts of the forest or in small ponds. Therefore, at this time, work on the moose farm was done only at night and periodically. -- 1956, Experimental Moose-farm, pechora-Ilych National Park, Russia

Since the moose become tame so easily, their young have often been bottle raised in the Baltics, Sweden, and Russia. A biologist, Dr. Peter Krott who resided in Finland, tried to ride two bottle-raised young moose and drive them before a wagon. Almost full grown, they were strapped into a special harness, bridles, and halters without any resistance on the first attempt. This could not be done with any young horse, no matter how tame, since it is more ticklish. Because a metal bit would be too cold in the winter, they had rubber. They did not pay any attention to the sleigh behind them and walked around with harness and sleigh as if on their way to pasture. After twenty minutes, they would browse in the bushes, they would lay down to recover from the strain. Later Peter Krott travelled to several towns in Finland to show off his team. The two large animals would follow their master, who lured them up the ramp onto the truck with a cabbage. Their halters were tied to the front wall and, while the truck was moving, they would lie down quietly. When they turned their heads their dangerous antlers were only millimeters from Mr. Krott's eyes - proof of how precisely they could control their movements. When Krott called them, they immediately put their muzzles under his arm and followed like dogs. They were not bothered in their shows by the crowds, the many cyclist, cars, and buses. Only at the station were they terrified when a train dashed past them, although after the train was gone, they calmed down and returned without any difficulties to the exhibition grounds. The children were delighted when, amidst the crowd, the animals lay down to rest and ruminate. Even a private plane flown right above their heads did not bother them.

In the Soviet Union, they were more successful with training moose for riding and pulling carts. Cliff Drawings discovered in Siberia show that moose tended by humans or hitched to a sleigh, suggesting the moose was once as domesticated an animal

as the horse and the cow. As early as 1938, the experimental institute of Serpuchowsk near Moscow had thirteen tame moose who were hitched daily to a sleigh. They would pull one ton and a half cubic meters of logs for fifteen kilometers. Unfortunately, this station was ruined during the German occupation. Later rebuilt in Siberia in the state nature preserve where the moose's main diet grows plentifully. From 1946 to 1948, moose were first captured when one to three days old for the moose farm. They immediately drank cow's milk from the bottle. Such animals became extremely tame and attached to humans. Already at an age of two to three months, the animals are put into a halter and attached to a post with a rope. Within a few weeks, they learn how to walk on a leash. It is important that they not only obey the familiar person's voice, but also that they respond to the sound of a horn. Otherwise, they would only follow the people they know. As soon as the moose have reached a weight of 130 to 150 kilograms, about six months old, they are trained to carry loads and to pull carts. At three years, their training is completed and they are ready for work. They may be ridden and pull weights of several hundred pounds. Full-grown moose can carry up to 250 pounds, which is one third of their live weight. The moose may turn out to be of use for labor in the north. It needs no special food supply, as horses, or gasoline as cars. Deep snow, swamp, or fallen trees are no obstacles for it. Even in the winter it does not need a stable, but can lie down on the snow.

In Livonia, a forester named Harry Walter had a male moose, who skillfully jumped through an open window into and out of his room. During meals it would lie in the living room, and it followed him in the forest like a dog. While it could be ridden, it would not tolerate a saddle. -- GRZIMAK ANIMAL LIFE ENCYCLOPEDIA VOL. 13

(Irina Region), the elk gradually moved up to the Caucasus and the Carpathians.

Cliff drawings discovered in Siberia show that the elk was once as domesticated an animal as the horse and the cow. We do not know why it went wild again.

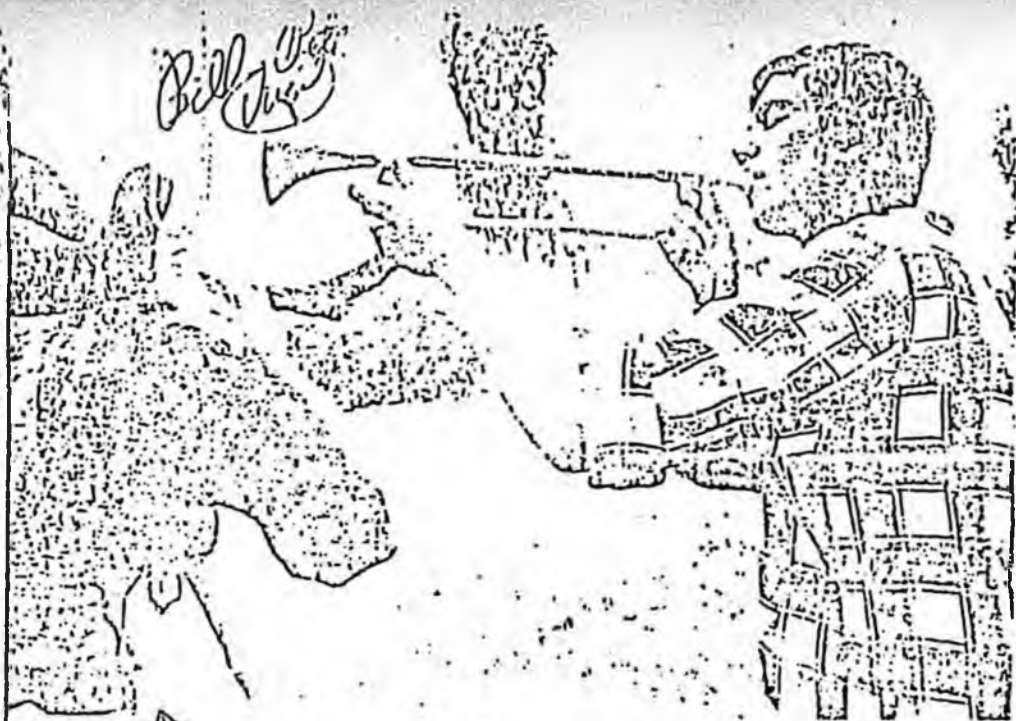
People tell the story of a year-old female that strayed from a herd in open pasturage in the Siberian taiga. Two years later the animal accidentally came upon the person who had been its herdsman. Hearing the voice, it ran up to him, sniffed at the man's face and nose and poked its muzzle into his pocket, where he used to keep tidbits for the animal. It followed the man some five or six miles to the elk-breeding farm and never left the place. It is interesting that the elk had not turned wild in the two years it had lived with wild elk.

So domesticating elk is not too difficult. The problem is to get them used to herd life and a fixed order of things.

But the job is worth doing. Some elk cows at the Kostroma farm yield as much as six quarts of milk a day. And what milk! It is five times richer in protein and fat than ordinary cow's milk: it churns to excellent butter. The elk are not at all fussy about their food, and that makes them ideal domestic animals in forested and taiga-covered regions, Siberia and the Far East, for example, where the fodder is sparse.

There are already more than 40 elk at the Kostroma farm, which is only eight years old. Early in the morning, in answer to the bugle call, the elk come out of the forest to the pens. Salted water is ready for them and milk and oatmeal for the calves. The cows have to be milked and, from time to time, weighed and measured. Then they're led out to the forest to graze till evening. This is not to keep them from scattering but to get them more accustomed to herd life.

Four young people—Alexei Mikhailov, the farm's director, and his wife Polina (both are graduates of Kostroma's Agricultural Institute) and laboratory assistants Nadezhda Durkina and Alexei Kelip—make up a team whose practical research has awakened interest beyond Kostroma Region. Last spring something happened at the farm which even got some attention abroad. Nineteen calves were born on one day. And not one of them died. An acknowledged record holder here is Nakhodka, who has already dropped nine calves: one the first year and twins annually ever since.



Moose

## "Milking Moose"

(In the European Countries Moose are known as ELK)

By Matvei Khromchenko

EVERY MORNING the year round, no matter what the weather, a bugle calls through the village of Sumarokovo. The bugler is patient, persistent, repeating his notes until the elk appear on the edge of the forest. The day has begun for the elk-breeding farm at the Kostroma Agricultural Experimental Station.

Elk were close to extinction at the turn of the century; they were much too tempting and easy game for hunters. Only extreme conservation measures saved them, and today there are half a million in the Soviet Union. From the central forests (including those in Kos-

BY SEN. COGHILL

1 IN THE SENATE

2

SENATE BILL NO. 472

3

IN THE LEGISLATURE OF THE STATE OF ALASKA

4

SIXTEENTH LEGISLATURE - SECOND SESSION

5

A BILL

6 For an Act entitled: "An Act authorizing moose farming."

7 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

8 \* Section 1. AS 16.40.010 is amended to read:

9           Sec. 16.40.010. DISPOSITION OF SURPLUS BUFFALO, MOOSE, AND MUSK  
10 OXEN. Whenever it is determined by the department that a surplus  
11 [EXISTS IN THE HERDS] of buffalo, moose, and musk oxen exists [UNDER  
12 ITS CONTROL], the department may, under regulations adopted by it,  
13 grant the surplus or portions of it to persons, groups, associations,  
14 partnerships, or corporations for the purpose of raising and breeding  
15 the animals as domestic stock for commercial purposes, or for scien-  
16 tific and educational purposes. A person, group, association, part-  
17 nership, or corporation may receive animals only after proving to the  
18 satisfaction of the department

19                   (1) intent to raise and breed the animals; and

20                   (2) possession of facilities for maintaining the animals  
21 under positive control.

22 \* Sec. 2. AS 16.40.020 is amended to read:

23           Sec. 16.40.020. SALE OF MEAT. The sale of buffalo, moose, or  
24 musk oxen meat resulting from the slaughter of animals obtained under  
25 AS 16.40.010, or their offspring is authorized.

BY REP. SHULTZ, Zawacki

1 IN THE HOUSE

2

HOUSE BILL NO. 516

3

IN THE LEGISLATURE OF THE STATE OF ALASKA

4

SIXTEENTH LEGISLATURE - SECOND SESSION

5

A BILL

6 For an Act entitled: "An Act authorizing moose farming."

7 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

8 \* Section 1. AS 16.40.010 is amended to read:

9           Sec. 16.40.010. DISPOSITION OF SURPLUS BUFFALO, MOOSE, AND MUSK  
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24 ~~musk~~ oxen meat resulting from the slaughter of animals obtained under  
25 AS 16.40.010, or their offspring is authorized.

February 12, 1990

SENATE JOURNAL

p. 2417

SB 472

SENATE BILL NO. 472 by Senator Coghill, entitled:

"An Act authorizing moose farming."

was read the first time and referred to the Resources Committee and the Finance Committee.

April 10, 1990

SENATE JOURNAL

p. 3322

SB 472

The Resources Committee considered SENATE BILL NO. 472 (An Act authorizing moose farming) and a majority of the committee recommended do pass. The report was signed by Senator Fahrenkamp, Chair, and concurred in by Senators Frank, Zharoff and Sturgulewski.

Zero fiscal note published today from Department of Fish and Game.

SENATE BILL NO. 472 was referred to the Finance Committee.

April 20, 1990

SENATE JOURNAL

p. 3481

SB 472

The Finance Committee considered SENATE BILL NO. 472 (An Act authorizing moose farming). Senator Uehling, Co-Chair and Senator Duncan signed "no recommendation." Senators Frank, Zharoff and Pearce signed "do pass."

Previous zero fiscal note.

SENATE BILL NO. 472 was referred to the Rules Committee.

April 24, 1990

SENATE JOURNAL

p. 3553

SB 472

The Rules Committee considered SENATE BILL NO. 472 (An Act authorizing moose farming) and a majority of the committee recommended calendar. The report was signed by Senator Sturgulewski, Chair, and concurred in by Senators Eliason and Kerttula.

SENATE BILL NO. 472 is on today's calendar.

April 24, 1990

SENATE JOURNAL

p. 3570

SB 472

Senator Rodey moved and asked unanimous consent that SENATE BILL NO. 472 (An Act authorizing moose farming) be held to the April 25 calendar. Without objection, the bill will be on the April 25 calendar.

April 25, 1990

SENATE JOURNAL

p. 3589

SB 472

SENATE BILL NO. 472 (An Act authorizing moose farming) which had been held from April 24 (page 3570) was read the second time.

Senator Rodey moved and asked unanimous consent that SENATE BILL NO. 472 be considered engrossed, advanced to third reading and placed on final passage. Without objection, it was so ordered.

SENATE BILL NO. 472 was read the third time.

The question being: "Shall SENATE BILL NO. 472 (An Act authorizing moose farming) pass the Senate?" The roll was taken with the following result:

SB 472 3RD

Yeas:	11	Binkley, Coghill, Duncan, Eliason, Fahrenkamp, Frank, Halford, Jones, Pearce, Sturgulewski, Zharoff
Nays:	7	Faiks, Fischer, Kelly, Kerttula, Pourchot, Szymanski, Uehling
Absent:	2	Adams, Rodey

and so, SENATE BILL NO. 472 passed the Senate.

Senator Coghill gave notice of reconsideration.

## FISCAL NOTE

**REQUEST:**

Revision Date: 2-12-90  
 Title: AN ACT AUTHORIZING TOOSE  
FARMING  
 Sponsor: Council  
 Requestor: \_\_\_\_\_

Agency Affected: Fish and Game  
 BRU: Wildlife Conservation  
 Components: Wildlife Conservation

**EXPENDITURES/REVENUES:** (Thousands of Dollars)

OPERATING	FY91	FY 92	FY 93	FY 94	FY 95	FY 96
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0

CAPITAL						
---------	--	--	--	--	--	--

REVENUE						
---------	--	--	--	--	--	--

**FUNDING:** (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

**POSITIONS:**

FULL-TIME						
PART-TIME						
TEMPORARY						

**ANALYSIS :** (Attach a separate page if necessary)

\_\_\_\_\_  
 \_\_\_\_\_

Prepared by Bruce Dinneford  
 Division: Wildlife Conservation

Phone 465-4190  
 Date: 2-22-90

Approved by Commissioner: [Signature]  
 Agency: \_\_\_\_\_

Date: 2 7 90

Distribution (by preparer) :  
 Legislative Finance  
 Legislative Sponsor  
 Requestor  
 Office of Management and Budget  
 Impacted Agency(ies)

APR 12 1990

Alaska Department of Fish and Game  
Division of Wildlife Conservation

BRIEFING PAPER ON MOOSE FARMING

SB 472 and HB 516 would amend AS 16.40.010 and AS 16.40.020 to allow moose to be raised as domestic animals for commercial purposes and allow meat from these animals to be sold. AS 16.40.010 allows the Department of Fish and Game to grant surplus buffalo or muskoxen to persons or groups for the purpose of raising and breeding these animals as domestic stock for commercial purposes. The proposed legislation would add moose to the species that could be granted to individuals for private ownership.

The Department of Fish and Game is opposed to SB 472 and HB 516 for biological, economic, and social reasons.

Wildlife Management Concerns

Moose are the most highly sought after game species by resident and nonresident hunters. About 7,500 to 8,000 moose are harvested each year by about 50,000 hunters. In 1989, drawing permit hunts were oversubscribed by more than 25,000 requests. Moose also provide a major food base for other important wildlife species. Tourists, photographers, and outdoor enthusiasts eagerly seek opportunities to observe moose.

The primary proponent of this legislation (Mr. Nick Columbo from Delta) has proposed capturing moose along the Alaska Railroad near Talkeetna as a source of moose for his commercial operation. He claims this would reduce the number of moose killed by trains. Several thousand moose occur in this area and it would be impossible to predetermine which moose might be killed by a train. Whether moose are killed by trains or removed to moose farms, the result is the same--fewer moose along the railroad corridor. Public demand for moose in this area (GMU 14A and 14B) is very high. The 1989 season for resident hunters was for 1 bull and lasted from 20 to 30 days. In GMU 14A, there was also a cow season by drawing permits; 12,500 hunters entered the drawing for 400 permits. Our records indicate that about 4,000 hunters pursued moose in these game management subunits during the 1989 season. These hunters harvested over 700 moose. Obviously, the demand for moose greatly exceeds the supply in this area. The same is true for nearly all other parts of Alaska.

Farming of moose will require large acreages. Mr. Columbo has requested a lease of 4,000 acres of state land near Delta for his operation. Fencing of this land would exclude its use by other moose and many other wildlife species. Also, predators such as grizzly bears, black bears, and wolves are common near Delta and most other places where game farming might occur. Conflicts

between a moose farm and predators are certain. Passage of this legislation and approval of Mr. Columbo's lease request would remove 4,000 acres of productive state-owned wildlife habitat from production of wildlife for general public use and enjoyment. Predator populations over a much larger area would likely be impacted.

The Department would be responsible for ensuring the general welfare and humane treatment of moose on farms because moose are classified as big game animals and the public expects us to ensure the humane treatment of all wildlife. The Alaska Zoo in Anchorage is a good example of where the public demanded Departmental oversight beyond required permit conditions. A large moose farm as envisioned by Mr. Columbo would pose several problems. Moose are not a herd animal. Cows with calves are solitary and other moose seldom occur in groups of more than 4 or 5. To place 100 plus moose into a 4,000-acre pasture will create aggressive behavior that could injure many animals. Such dense stocking rates could also cause disease problems and these diseases could be transmitted to wild moose or domestic species outside the enclosure.

A larger problem would be created by passage of HB 516/SB 472 when people use this legislation to own a few moose as a hobby or to promote their tourist business. Such road-side attractions are notorious for mistreatment of animals and Alaska has strictly prohibited such activity in the past. Individuals holding moose to promote their tourist trade will likely have no training in animal husbandry or knowledge of how to handle a large, wild animal. Even moose bottle-raised and accustomed to humans can become very aggressive and dangerous. The state may be held liable for allowing untrained people to hold wild animals if a moose injured someone.

Allowing the sale of moose meat will create serious law enforcement problems. Poaching of moose for commercial sale will become more common and difficult to enforce. Unethical moose farmers could work with poachers to confuse law enforcement. Allowing sale of moose meat will add an economic incentive to poachers that currently is absent. For this reason, in Alberta and several other provinces where elk farming is common, the sale of elk meat is prohibited. Farmers in Alberta can sell only antlers and breeding stock to other farms.

Current levels of wildlife law enforcement are inadequate to cope with this new burden. In West Germany, where sale of wildlife is legal, there are 65,000 armed wildlife protection agents (game wardens) or 1 for every 1.5 square miles (Geist 1988, Conservation Biology, 2(1):15-27). Still, poaching is considered a problem. In Alaska we have about 75 Fish and Wildlife Protection Officers plus about 300 employees of the Department of Fish and Game who are deputized. Counting even part-time deputized officers, this is 1 officer per 1,500 square miles of land. It is very unlikely that the level of law enforcement

would be raised to adequately enforce game regulations if sale of moose meat is allowed.

### Economic Reality

Moose are expensive to maintain in captivity. An average moose will consume 20 to 30 pounds of food per day in the summer and 10 to 12 pounds in the winter. The most productive areas in the state can support 6 to 8 moose per square mile during the winter. Mr. Columbo plans to stock in excess of 16 moose per square mile on his farm. A high level of supplemental feeding will be required. Moose have evolved to eat leaves and stems of woody plants. They cannot survive long-term on a diet which sustains cows, sheep, or horses. All moose held in captivity throughout the world are fed native browse or a pelleted ration that contains 33% aspen sawdust. This pelleted food is expensive, roughly twice the cost of domestic livestock feed.

Game farming has proven economical in some parts of Canada, most notably Alberta where elk and bison farms are common. However, none of these farms raise moose commercially because they are not profitable. A few farmers in Alberta do have 1 or 2 moose; the most owned by any one farmer is 6 animals. This farm is a wild animal park for tourists. No moose farms exist in the Yukon Territory.

The Yukon Territory, Department of Renewable Resources contracted with a private consulting firm in 1986 to analyze the economic feasibility of game ranching in the Yukon. This report concluded that moose are not suitable animals for game farming because of their tendency to acquire density-related disease. The Yukon government subsequently adopted a game ranching policy that prohibits the use of moose in game farming. The same report concluded that elk farming might be economically viable, but the average initial investment for an elk farm would be from \$400,000 to \$450,000 and annual operating costs would be \$17,000 to \$20,000, excluding labor. No income was predicted for the first 2 years of operation.

Moose farming is not economically feasible in areas where game farms have been established and much effort has been spent to establish markets for wild game products. To expect such endeavors to succeed in Alaska where no infrastructure exists and no market has been established is not realistic. The state has promoted agricultural projects in the past that resulted in continuing subsidies. We consider providing 100 publicly owned moose to private ownership a subsidy. Also, fencing 4,000 acres with a fence that will adequately enclose moose and exclude bison (a wild bison herd occurs in this area) will be very costly and could result in a request for a subsidy through a state loan.

Some proponents of moose farming have referred to reports from Russia where they think moose have been used successfully as work animals, for milk production, or for meat production. These

reports are not true. Russia initiated a large moose domestication project in the early 1940's. They built 2 large farms, one in the Pechora River Valley and one in central Siberia. Both farms closed in the mid-1960's because they were economic failures. It is difficult to obtain information on this project because the Soviets do not publicize their failures. However, moose specialists on our staff have obtained some scientific reports and have had several discussions with Soviet biologists who worked on the project. A synopsis of what we learned follows:

Moose could not be used for work animals except during winter. Moose do not have sweat glands, so working the moose during summer caused overheating and death. Milk production was low; to achieve a modest amount of production the moose had to be milked 6 times per day and labor costs were prohibitive. The Soviets learned they could produce as many moose through intensive management of wild animals as on the farms. They also had many behavior problems and had to hand-cut browse to feed the moose. The moose farm in the Pechora River Valley operates today as a field research center to study moose nutrition and physiology. The other farm was abandoned.

#### Social Considerations

Alaska's wildlife resources are a highly valuable economic asset. Wildlife contributes hundreds of millions of dollars annually to Alaska's economy through tourism, guiding, hunting, and subsistence. Tourists list the opportunity to see wildlife as their primary reason for visiting Alaska. The experience of observing wildlife will be diminished in value if tourists observe moose at road-side attractions and game farms.

The foundation of wildlife management in the United States is public ownership of the wildlife resource and a prohibition on commercial use (sale of meat or animal parts) of the wildlife resources. These 2 basic premises make it possible for most citizens to participate in hunting at a low cost and increase the desirability of wild meat because it can only be obtained through hunting. The use of wildlife in Europe has deteriorated, in large part, due to private ownership of game. Only about 3% of Europeans are hunters because costs are prohibitive and game meat can be purchased. Legalization of moose farms would start Alaska on a path to private hunting preserves and the European system of hunting. We strongly believe that such action would be a major error and would be detrimental to successful wildlife management in Alaska.