



Raising Deer & Elk

Revised 10/7/2005

Introduction

Deer and elk are collectively known as “cervids”, ruminant mammals with solid antlers, unlike those of bovines that naturally shed from the males. Deer and elk have been farmed extensively in New Zealand, Germany, and Russia, but less so in the U.S. However, New York is one of the leading states in cervid production, and the regional industry has potential for growth.

Deer are grown mainly for their meat (venison) which is low in fat and cholesterol. To a lesser extent, deer are grown for their antler velvet, the soft new growth on antlers. The velvet is harvested in early summer and then frozen, dried, and sold. Elk are traditionally grown for their velvet, producing nearly four times as much as red deer.

Red and fallow deer are the two most commonly farmed species in the U.S. Red deer are generally twice as large as fallow deer and have a calm temperament, making handling relatively easy. Fallow deer are smaller (100-pound does) and more flighty but yield a finer-textured, better tasting venison. They are also thought to be more disease-resistant than red deer. Elk are considerably larger cervids, standing 5 to 6 feet at the shoulder with males weighing up to 850 pounds. They are also known as “wapiti” (pronounced **whop**-eh-tee), a Shawnee word for elk.

Producers are advised to start small, with 10 to 20 deer, one buck (male fallow deer) or one stag (male red deer). Elk are considerably more expensive than deer to acquire. New producers should consider purchasing starter animals

from their own region from reputable farmers who can certify the animals are free of major diseases.

Species Farmed in NY

There are several main species of cervids farmed (commercially) in New York State. From the subfamily *Cervinae*: *Dama dama* (fallow deer), *Cervus canadensis* (elk), *Cervus elaphus* (red deer), and from the subfamily *Odocoilinae*: *Odocoileus virginianus* (white-tailed deer), and *Rangifer tarandus* (reindeer/caribou). *Cervus nippon* (sika deer), *elaphurus davidianus* (pere david’s deer) and *Axis axis* (spotted deer) are found on numerous preserves.



Fallow deer



Elk

Feed Requirements

Red deer eat pasture, trees, and brush; fallow deer are primarily grazers. Elk browse grasses in the summer and woody stems in the winter. In New York all cervids will require some supplemental feed in the winter months for optimum health. Copper is essential for cervid nervous systems and may need to be supplemented if a soil test reveals a deficiency.

The stocking rates for cervids are excellent: as a general guideline, 3 elk, 4 red deer, or 7 fallow deer equal one cow on moderate-quality land. Attention should be paid to the females during lactation and males before the rut so animals stay in sound breeding condition.

Facilities

In addition to adequate grazing range, cervids need a fresh water supply, shelter from inclement weather (preferably a stand of trees), and proper handling facilities. The latter should include a logical system of alleys and chutes with a catch pen for vaccinating, deworming, removing antler velvet, weighing, and tagging.

High-tensile fencing is recommended and should be at least 8 feet tall. To keep predators out and calves in, a strand of barbed or electrified wire should be incorporated just above the ground, or fencing should be installed below ground. Because deer have a tendency to run toward corners, gates should be located there rather than in the middle of the fence line.

Handling and Labor Requirements

I. Health

Several of the most common diseases of cervids are Chronic Wasting Disease (CWD), tuberculosis, and Johnne's disease. CWD affects cervids of the genera *Odocoileus* or *Cervus* or any hybrid of such and is a transmissible brain-degenerating disease similar to BSE in bovines.

More information on CWD can be found at: <http://wildlifecontrol.info/CWD/default.htm>. The bovine form of tuberculosis affects deer

and elk and can be spread through feed, water, or air. Johnne's disease is caused by bacteria and transmitted by fecal-oral contamination.

To prevent clostridia bacterial diseases, adult deer and elk should be vaccinated once a year and calves vaccinated at weaning. See your veterinarian for protocols.

II. Management

For the most accurate records, producers should use a "single-sure" mating system where individual males are assigned to a group of females. This reduces aggressive male behavior and allows the producer to more accurately follow genetic bloodlines.

To improve pregnancy rates and herd genetics, artificial insemination can be used for elk and red and fallow deer where practical. A reasonable conception rate for AI is 50%. Ideally, all newborns should be tagged within 12 hours to ensure good record keeping.

Antler velvet should be harvested in early summer while the new growth is soft; growth left on the animal will harden and fall off in the fall. Also, early summer harvest does not disrupt the breeding season. There are several means of humanely immobilizing the animal for velvet harvest; consult your veterinarian.

Owner Requirements

Contact the New York State Department of Agriculture and Markets and the New York State Department of Environmental Conservation for deer and elk owner requirements:

Animal Industry:

John Huntley, DVM ph. 518-457-3502

Animal Movement Permits:

Susie Barry ph. 518-457-3971

DEC:

Jim Zanett ph. 518-402-8985

Contact NYSDAM regarding the regulations of slaughtering, processing and selling farm raised venison, including farm raised whitetail:

Food Safety:
John Arnold ph. 518-457-5459

North American Deer Farmers Association
(NADeFA)
NY Branch
Martha Goodsell, Chair
125 Williams Road
Candor, NY 13743
Ph: 607-659-4635
Email: info@fallowhollow.com
www.nadefa.org

Level of Skill

Pros:

- ❖ Cervids can utilize poor quality forage
- ❖ Excellent ratio of lean meat per pound of live weight
- ❖ Calm disposition for red deer and elk
- ❖ Low labor requirement
- ❖ High fertility rate and long reproductive life

Cons:

- ❖ Elk are very expensive to acquire
- ❖ Fencing must be tall = major investment
- ❖ Must have very thorough marketing strategy for these niche products
- ❖ Must adhere to NYS regulations regarding ownership and marketing

Reproductive Statistics for Cervids	
FEMALE	
Age of puberty	Red Deer: 16 months Fallow Deer: 16 months Elk: 18 months
Breeding weight	Red Deer 160 to 180 lbs Fallow Deer: 60 lbs Elk: 360 to 400 lbs
Estrous cycle	
Length	Approx. 18 to 21 days
Gestation length	Deer: 234 days Elk: 250 days
Breeding season	September through November
Calving season	Usually May - June
MALE	
Breeding age	Deer: 24 to 30 months Elk: 24 to 36 months
Breeding season	September through November
Breeding ratio	Deer: 1 stag : 40 hinds Elk: 1 bull : 17 to 20 COWS
Adapted from: Michael L Westendorf, Extension Specialist, Rutgers Cooperative Extension.	

Animal Source

www.deerfarms.com provides a directory of deer farmers and advertisement of their products and services.

Market Availability

Northeast Cervid Marketing Cooperative

NE Game Meats

Lyle Robbins, President

1726 County Rt. 15

Lacona, NY 13083

315-387-5361

Email: robbinsnestfarm@tccenet.net

Current Marketing Trends

Breeding Stock in particular those animals with exceptional genetics, continues to have strong markets; high prices are reflective of an industry still in the early growth stages. White-tailed deer markets are currently the most lucrative, but are the most risky as well.

Markets for elk and red deer have begun to level while fallow breeding stock continues to lag. Expect this trend to end as limited availability of high quality fallow breeders are beginning to push prices up.

Shooters are deer raised as trophy animals to stock hunting preserves. Currently they are receiving somewhat disappointing prices. Destination markets have been limited with the closure of state borders under emergency CWD regulations. For those with sufficient land, the trend has been to create their own preserve. Such landowners can control the market price of their stock.

Venison price has remained fairly stable for the last five to seven years while operating costs continue to rise. There is competition from New Zealand and Canada products. Processing regulations also make marketing a challenge.

Velvet and Antlers at one time were exported into Asian markets. The discovery of CWD in U.S. herds closed this market. A U.S. freeze-drying plant allows for domestic sales of velvet as a health/dietary supplement but crossing

state lines must be carefully navigated. This is also a limiting factor in the sale of hard antler (sheds) to the craft market. However, with a limited number of mature bucks coupled with the renewed interest in antler art, prices for hard antler remain relatively high.

Leather tanning processes have made leather more desirable now that expensive garment cleaning has been virtually eliminated. However, closure of tanneries has created limited market opportunities. Raw hides remain popular among traditional crafters and fair prices for small quantities can be negotiated.

Mounts are popular wall hangings once again. Taxidermists within New York receive fair price for mounts and capes.

Hunting Preserves having recently been legitimized by New York Governor Pataki, facing the objections of the animal rightists. The development and implementation of national and state codes of ethics have helped to ease some of these tensions.

Budget

Initial Investment	amount	General estimate	Your estimate
Fallow Deer			
	Does each	\$500	_____
	Bucks each (1 needed / 20 does)	\$600	_____
Red Deer			
	Hind each	\$2000	_____
	Stag each (1 needed / 30 hinds)	\$3000	_____
Elk			
	Cow each	\$7000	_____
	Bull each (2 needed / 25 cows)	\$8-10,000 ea	_____

Potential Receipts

Breeding stock	Fallow deer, does \$500, bucks \$600		
	Red deer, hinds \$1,200, stags \$800		
	Elk, heifers \$7000, bulls for velvet of breeding \$2000		
Venison (deer)	Fallow @ 100 pounds live = 55 pounds dressed	x \$4.50 / lb	_____
	Red @ 225 pounds live = 124 pounds dressed	x \$4.00 / lb	_____
Velvet [Red deer & Elk]			
	Red 6-8 pounds / stag x	\$55.00 / lb	_____
	Elk 10-14 pounds / bull x	\$60.00 / lb	_____

Expenses

	Fallow / Red / Elk	
Feed	\$62 / \$107 / \$413 per female	_____
Health, transport, misc	\$66 / \$137 / \$170 per female	_____
Buildings, facilities	Deer / Elk initial investment \$2200 / \$4700	_____

For More Information

Small Farms Program
135c Plant Science Building
Cornell University, Ithaca, NY 14853
www.smallfarms.cornell.edu

Northeast Deer and Elk Farmers Association (NDEF)
405 Weaver Rd.
Sandy Creek, NY 13145
Ph: 315-387-5562
Email: dick@empireelk.com
www.ndef.org

Reindeer Owners and Breeders Association (ROBA)
3032s St. Highway 30
Gloversville, NY 12078
518-661-7640

www.reindeer.ws/

The North American Deer Farmers Association
<http://www.nadefa.org/>

Ontario Deer & Elk Association
<http://www.ontariodeerelkfarmers.com/farm.shtml>

Texas A&M Deer & Elk website
<http://overton.tamu.edu>

Sheep and Goat Marketing Program
<http://www.sheepgoatmarketing.info/>

Maryland Small Ruminant Page
www.sheepandgoat.com

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