



CONTROVERSIAL OOMINGMAK—Musk ox calf is suckling its mother at the farm at College, Alaska near University of Alaska. Musk oxen are easily domesticated. They have a sense of humor and are playful as well as being remark-

ably intelligent. They are tame as cows and will come to you upon being called by name. Efforts to hunt them on Nunivak Island has become a controversial issue.

—Photo by JIMMY BEDFORD

Musk Ox, Misunderstood Animal— *The Taming of the Animal, Its Potential, Characteristics*

(EDITOR'S NOTE: Most of our readers will have heard of the Musk Ox Project, and many have probably seen the animals themselves at the Musk Ox Farm near the University of Alaska. In a series of 5 articles for the **TUNDRA TIMES**, Paul Wilkinson, who has worked for the Musk Ox Project for the last 3 years, will explain how and why the musk ox has been domesticated, and will discuss hopes for its future utilization in Alaska and other parts of the Arctic. These articles are intended to invite your comments and suggestions, either in the columns of the **TUNDRA TIMES** or directly to the Musk Ox Project at the University of

Alaska.)

By PAUL F. WILKINSON

The musk ox is a misunderstood animal. It is not an ox, but more of a goat; and it does not produce musk, which comes from the musk deer.

The most appropriate name for the musk ox is the Eskimo word 'oomingmak', meaning 'the bearded one', for musk oxen of both sexes sport long beards. 'Oomingmak' is also the name adopted by the Musk Ox Domestication Project.

A domesticated musk ox differs from a wild one in two chief ways: its breeding is controlled by man, and it is tame.

Wild animals decide for themselves which bull will breed which cow, often by fighting.

In the case of a domesticated

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animal the herdsman makes this decision, and he tries in this way to make the animal more useful to him by improving such characteristics as the quality and quantity of its meat, milk, or wool. Tameness is important for obvious reasons, especially with animals raised for milk or wool.

The first European explorers to see musk oxen in Canada noticed that they were covered with an undercoat of fine wool. Because these men were merchants, they realized that this wool could be turned into textiles and sold at a good profit if they could get enough of it.

Obtaining sufficient of this wool was a great problem, since it was obviously impossible to approach a wild musk ox and to pluck it from its back, and it was impossible to collect the wool from the ground after it had been shed, because the wind quickly scattered it over many miles and the sun and rain spoiled its quality.

A few of these explorers thought and wrote about domesticating the musk ox for its meat or wool, but it was only 1954, 300 years after the first description of a musk ox by a European, that John Teal decided to try.

The decision to domesticate the musk ox was based on several reasons. We hear constantly that the population of the world is growing so rapidly that there is insufficient food to feed everybody even now and that the situation is going to get worse.

The arctic and sub-arctic areas of the world form almost 20% of the world's land surface, yet they contribute little to the world's total food supply.

If we are to feed the growing population, we must make full use of every climatic and vegetation region of the earth. Because of the severe arctic climate, traditional domesticated animals, such as sheep, cattle, and pigs, cannot survive.

If there is to be any kind of arctic agriculture, it must be based on native animals and plants. As the Arctic already has a domesticated meat-supplier the reindeer, John Teal decided to domesticate the musk ox for its valuable underwool, which is known by the trademarked term qiviut.

Coming a little closer to home, a major reason for domesticating the musk ox was to provide cash and employment for people of the Arctic who did not want to leave their villages or to abandon completely their traditional way of life, yet who needed some cash for food, fuel, gasoline, and the other necessities of modern life.

Finally, the musk ox itself needed protection. It is estimated that there may have been as many as one million musk oxen at the beginning of the last century, but persistent hun-

ting with rifles has reduced this number to about 20,000 today.

Obviously, the first step in domesticating a wild animal is to capture some wild ones, which can be tamed and later selectively bred. The Musk Ox Project began in 1954, when John Teal went to the Barren Grounds of Canada to capture 7 musk oxen calves for a trial experiment in domestication.

Since the musk ox is a rare animal, it was important to devise ways of capturing the calves without killing or injuring any of the animals, such as happens when drugged darts are used.

Two safe and effective capturing techniques were devised. In the first herds of musk oxen are driven into lakes (they are excellent swimmers), and the capturers swim after them and capture the calves by hand. Where this is impossible, a cow and her calf are separated from the main herd using a helicopter, and are chased overland until they take refuge with their backs against a rock or a cliff.

Then the capturers climb up above them and drop a rope over the calf, frightening the mother away by shouting at her. Although these methods sound a little dangerous, several hundred successful captures have been carried out so far in these ways.

Immediately after capture, calves which have been swimming are rubbed dry to prevent chills, whilst those chased overland are damped down, for musk oxen possess few sweat-glands and quickly become overheated.

Each calf next receives a tranquilizer to calm it down on the helicopter trip back to camp and a shot of antibiotic to prevent diseases. Calves are generally captured when they are 4-6 months old, at which age they are old enough to thrive without their mothers, yet are young enough to be tamed easily and permanently.

In fact, many calves show little or no fear of man, for they are too young to have learned to fear or distrust him. Whenever necessary, taming can be accomplished within 24-36 hours of capture by feeding the calves milk from a can fitted with a nipple, as well as other delicacies such as willow leaves.

The calves captured in 1954 were taken to a farm near Burlington, Vermont, the headquarters of the Institute of Northern Agricultural Research, the organization which started the Musk Ox Project.

There they were subjected to a series of experiments to see if it would be possible to begin musk ox domestication on a large, commercial scale in the Arctic.

In the next article, I shall describe these experiments and results.