

Development of the technology for producing reindeer in the USSR

Michael P. Koshelev¹ and Anatolyi D. Mukhachev²

¹ Chief of the Main Administration for Northern Affairs of the RSFSR Ministry of Agriculture, U.S.S.R.

² Head of the Reindeer Breeding Department of the Agricultural Research Institute of the Far North, U.S.S.R.

Rangifer, Special Issue No. 1, 1986: 341 - 343

Reindeer breeding occupies a significant place in the combined agricultural and hunting economy of the Far North. The prospects for development in this field are determined by important economic goals such as strengthening northern economy, improving the prosperity of indigenous peoples, establishing a local food supply and grazing plants species not utilized by other species of agricultural animals. The cost of producing reindeer meat is several times lower than production costs of meat from other agricultural animals raised in the North. Besides meat, reindeer provide leather, hides, velvet antlers, and other valuable products. Thanks to Lenin's national policy which is being carried out by the Soviet government, reindeer breeding is developing successfully and the standard of living in the indigenous peoples of the North is gradually improving.

Further increases in production of reindeer products in the USSR and improvements in social and economic conditions of northern peoples will be based mainly on intensifying production, the more complete utilization of reserves and improving the working and living conditions of reindeer breeders.

Natural forage reserves (pastures) serve as the basis for the development of reindeer breeding. Land management measures have already been carried out at all the reindeer farms. Land

improvement projects are being introduced to promote efficient use of pastures and to keep their productivity at a high level. Over 150 million hectares of calving grounds are air-patrolled at local expense every year to prevent fires. All the farms have received instructions on the efficient use of pasture land.

In order to provide the reindeer with a fully supply of nutrients during the winter-spring period, the No. 67-IBMD protein-mineral supplement is being used in a daily dose of 100g/100kg/reindeer.

When a crust of frozen snow and ice makes pasture grazing impossible, using the specialized K-67-3 mixed feed (2 kg daily/animal) helps to prevent death and avoids the need to relocate reindeer to places where feed is available.

Supplementary feeding of reindeer during the snow free period with a feed mixture consisting of the special P-67-1 premix, table salt and fluorine-free phosphorus (30 g daily/animal) normalizes the physiological function of the animal, improves grazing, heightens the herding instinct and makes it easier to herd and control the animals.

Fattening of reindeer with below-average fat reserves with the help of specialized mixed feeds (K-67-1, K-67-2) enables us to increase their live weight and fat reserves. Fattening prior to slaughtering yields an additional 80-100 centners

of first-grade meat (live weight) from each one thousand reindeer. That represents a profit of about 70 000 - 90 000 roubles.

Supplementary feeding and fattening of reindeer is carried out in accordance with instructions available at each farm.

Improvement of reindeer husbandry technology in the tundra and forest-tundra zones encompasses the following main measures: keeping the size of the herds at an optimal level in relation to regional conditions, with a simultaneous increase in the proportion of breeding cows in the herd to 60-65%; constantly monitoring the upkeep of the animals with a team-shift system of labour organization; grouping draft reindeer into a separate herd during the late autumn-winter-spring period; grouping of infertile animals during the calving period; and using fences and enclosures in those areas where mass autumn migration of wild reindeer take place.

A promising reindeer husbandry technology has been developed in recent years for the taiga zone.

It has been established that a high degree of safety is ensured for even unfenced animals during the winter when the basic organizational-zootechnical and geobotanical requirements are adhered to; daily controlled grazing of the animals by a 2-man duty shift; utilization of the pastures in proper sequence; monthly counting of the animals, and when necessary more frequent counting (along a path or over the fence of a corral); daily food supplements; grouping of draft reindeer into a separate herd; introduction of measures to prevent predator attacks, etc. In connection with this, it is recommended that a stationary or mobile housing and working complex be built in the centre of pasture land designated for winter maintenance of reindeer (the holding capacity of these pastures should be at least 3000-4200 reindeer, i.e. a 3-year rotation should be ensured for the grazing of a herd numbering 1000 - 1400 head). Radially from this complex, the pastures are divided into three areas with an equal grazing capacity. The areas are used in sequence, changing each winter. A stationary dwelling is also built on each wintering area for the herdsman and they also use a mobile dwelling. In order to ensure the well-being of the animals and the maintenance of a good degree of fat during winter, extra measures are recommended,

measures which are called for by the zonal systems of reindeer breeding in taiga conditions.

During the spring-summer-autumn season, it is recommended that the reindeer be kept in fenced pastures, in a specialized complex. The technology of this complex includes the following elements: a contoured (closed) fence extends along the perimeter of the areas set aside for keeping reindeer during the spring-summer-autumn period and prevents the animals from going beyond these boundaries; an interseasonal enclosure separates the pastures of two seasons (spring from the summer, summer from the early autumn and the early autumn from the late autumn ones) and prevents the animals from going into a pasture of another season; an interseasonal dividing enclosure in the spring and late autumn pastures makes it possible to utilize each area every other year (the size of each corresponds to the grazing norms during a season); an intraseasonal separating enclosure separates the pasture area for the grazing of infertile animals in the spring pastures and separates the pasture area for fattening in the late autumn pastures; a therapeutic-prophylactic (quarantine) enclosure makes it possible to organize more leisurely grazing of sick animals and improves the organization and efficiency of reindeer with below-average fat reserves; a supplementary feeding area includes a small frame hut for the herdsman on duty, mobile feed boxes and fodder sheds (temporary covered structures for the storage of mixed feeds); stationary and mobile feeders which make it possible to rationalize the supplementary feeding of the animals, utilize the pastures according to plan and to spend less time and energy on herding and controlling the animals; corrals are stationary, or a mobile enclosure made of a nylon fabric; mobile veterinary station; mobile slaughterstation; traps for catching the reindeer; folding travelling sheds; a service complex (dwellings, bath and laundry, garage and power station, storehouses, helicopter platform).

The technology of reindeer husbandry within the complex calls for adherence to all the planned geobotanical and organizational economic measures, including inspection of the enclosures and other facilities.

The introduction of the recommended system for keeping a herd numbering 1000-1400 head guarantees high production results with a meat yield exceeding 30 centners (live weight) for

every 100 January reindeer. This results in an annual profit of more than 30 000 roubles while simultaneously improving the living and working conditions of the reindeer breeders.

Development of this reindeer husbandry technology is being carried out against the background of pure-strain breeding which has been given a great deal of attention in recent years. The varieties of reindeer (Nenets, Chukchi, Evenki, Evensk) have been certified and approved; 4 pedigree stock farms and one pedigree plant have been established, 123 pedigree herds have been formed, long-term plans of pure-strain breeding have been developed and introduced for regions, territories and autonomous republics for the period extending up to 1990. A regular exchange of pedigree stock is being carried on.

Planned production of velvet antlers has been initiated in order to increase the efficiency of this branch of industry and to utilize this product to a fuller extent.

Further development of this industry is being carried out by annual improvement of machinery and the housing and service complex, as well as by an increase in material incentives on the basis of an increase in the quantity and quality of production and the introduction of a brigade system of work.

The workers of the reindeer breeding industry are making a worthy contribution to the common cause of fulfilling the agricultural program of the Communist Party of the Soviet Union.