

Farm breeding of European beaver (*Castor fiber* L.) in the Research Station of the Polish Academy of Sciences at Popielno

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After the Second World War the beaver has become a rare species in Europe. Therefore, a beaver farm was established in 1958 year at Popielno (NE of Poland, Mazury) as an experimental section of the Polish Academy of Science in order to study biology of beaver and its reintroduction into natural habitat. After several trial and error runs many technical obstacles have been eliminated and a farm comfortable for the animals has been created. One of the factors taken into consideration while establishing the farm was the beaver territorialism.

The beaver lodge was constructed in such a way that the animals would have direct access to the water whilst the feeding area between the beavers' families was separated by brick walls. That type of arrangement allows proper feeding of the animals and helps to maintain clean water in the reservoirs without interference into the existence and nocturnal activity of the animals.

The farm has 16 sections (beaver lodge + water reservoir + feeding area), one section per one family. The animals are fed with branches of tree leaves, mainly willow, grains, dry bread, grass, Jerusalem artichoke, carrots, beets and occasionally apples). The average dose of grain and grass is 267 g and 417 g per animal per day, respectively. The freshly cut branches of the trees are the source of material for the beavers' lair whereas chewing the branches helps the animals to prevent the excessive growth of the teeth.

Farm breeding of the beavers does not require a direct contact with the animals. However, the frequent contact of young beavers with the humans affects their behavior and makes it easier to manipulate them when they are adult and mature. The free living beavers are selective eaters and consume over 200 different plants, however our feeding program is sufficient to maintain a high number of young in a litter. Between 1959 and 2006, 459 young beavers were born, on average 2.8 per pair (4 cases of 6 young beavers). Apart from studying male and female physiology the beaver farm in Popielno plays an important role in the reintroduction of the beaver species in Poland. Since 1974 newborn beavers have been used to create new families that were then introduced into the natural habitat in different parts of Poland in order to increase the total population of beavers (the project – “Active protection of the European beaver”).

Our experiences in the areas of feeding, and the maintenance of the animals, technical and behavioral aspects as well as farm management practices might be applicable in commercial beaver farming or and in ZOO environment. Beavers accommodate to farm conditions very easily and may become a source of low cholesterol meat, pelts and fat that has healing properties. Beaver is an animal that can be easily farmed, similarly to e.g. ostrich, red deer and fallow deer.

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