

of phosphorus leads easily to strong over-eutrofication in waters near fur farms. Phosphorus could be taken off from sewage water of farms through filtering but most farmers do not make any efforts to do so.

The reason for phosphorus and other nutrients leaking into waters near farms is water falling onto droppings. Water comes straight from the sky or from roofs of farm houses when it is raining, or as drops from the drinking vessels of animals. The urine of animals has the same effect. As a consequence, nutrients in droppings of animals are dissolved in water and are washed into waters in the surroundings.

As a rule waters around the fur farms are polluted. This includes both surface and bottom waters. Problems are worst in Vaasa county which has 90 % of Finnish farms. Many farmers have been prosecuted for polluting waters. In the most serious cases, charges were raised for polluting one whole large river.

Authorities have looked problems through fingers for a long time, but lately situation has changed and environmental problems in the fur farms have been a much debated subject in official papers of water protection authorities. Lately a statement given 7.1.1993 by National Board of Waters and Environment says: "Environment problems in the functioning fur farms are still remarkable." A common statement from local water protection authorities says: "Despite many admonitions to farmers about negligences on water protection in their farms nothing has happened for years."

Furthermore, environment around Finnish fur farms has suffered from air pollution. The main problem is ammonium leaking from fur animal droppings. Today the amount of ammonium from fur farms is about 1500 tons per year which means 5 % of all ammonium emissions in Finland. This is more than all the emission coming from Finnish industry. The biggest source of ammonium in Finland is droppings from animal raised for meat which take a piece of 70 % from the ammonium cake. Anyway, according to Finnish Forest Research Institute forest and trees around farms suffer from heavy ammonium emissions. Especially in Vaasa county forest damages are significant.

Ingredients of feed

Most ingredients of feed could be used by man, too (see figs in "Information on Finnish Fur Farming", p.9). Distribution of imported ingredients has decreased from about 35 % in mid 1980s to 15 % today. The main import product is fish from Norway (today about 13 %). Soya powder (1-2 % of feed) is imported from the United States.

Less than five years ago a lot of slaughter offal was imported from Sovjet Union. Now, number of fur animals is much smaller and slaughter offal from the home country (totally 55 million kilos) is enough for animals. Interestingly, fur business people in Finland have claimed that slaughter offal would be a serious ecological problem in Finland without the fur farms taking it for the animals. Of course, that is rubbish.

Fur farming consumes a huge amount of energy mainly because of transporting, conserving, making and distributing of the feed. Assuming that calculations made by Ford Motor Co. in USA could be adapted to Finland, too, 230,000 MWh of energy was used on Finnish fur farms in 1992. This corresponds to energy content of 21 tons of heavy fuel oil, or, accordingly, to an all-year-round heating energy of 10,000 new, electrically heated one-family houses.

Animal welfare in finnish fur farms

All the time numbers of animals suffer from all sorts of diseases on Finnish fur farms. The situation is maybe worst with mink: 60 % minks have a disease called plasmacytosis. With help of medicines minks are kept alive until they are killed in