CE Delft

Committed to the Environment

The environmental impact of mink fur production - Summary

Background

For decades, fur production has been a hotly debated issue in many Western countries. In the Netherlands and Belgium, this debate has focused on mink fur, the only type of fur produced in these countries. In Italy, mink fur is produced in relatively small quantities; here the debate involves fur use in fashion, mostly. Anti-fur associations point to animal welfare issues, including poor-quality living conditions and have ethical objections to mink being kept for their fur. The fur industry, for its part, considers fur production a 'green' agricultural activity, and cites the measures being taken to reduce CO_2 emissions and water and energy consumption. Fur is thus being positioned as an environmentally benign, 'natural' product.

Against this background a number of NGOs including the Dutch Bont voor Dieren, the Belgian GAIA (Global Action in the Interest of Animals) and the Italian Lega Antivivisezione (LAV) asked CE Delft to research the environmental impact of the fur production chain.

Life cycle assessment

CE Delft has performed a life cycle assessment (LCA) of fur production, thus to quantify the environmental impact of the various links in the production chain, "from chicken feed to piece of fur", so to speak. The analysis consists of two parts:

- Determining the impact of fur production with respect to 18 different environmental themes, providing insight into which phases of the fur production chain have the greatest impact.
- Comparison of the impact of fur with those of other common textiles: cotton, acrylic, polyester and wool, permitting environmental comparison between mink fur and other textiles.

The fur production chain

The fur chain is studied from the production of mink feed through to the production of 1 kilogram of fur for use in the fashion industry. More specifically, the following phases of the mink fur production chain have been investigated:

- *Mink feed production*: the feed consists of chicken and fish offal, supplemented with wheat flour and additives.
- *Mink keeping*: mink are bred for 7 to 8 months, after which they are pelted.
- Pelting: the pelt is removed from the carcass, cleaned and dried.
- Auction.
- *Fur treatment*: processes to transform the stiff pelt to fur (similar to leather processing), ready for further handling in the fashion industry.
- *Transportation*: between all the various phases there is transportation.

Each of these links in the production chain has been inventoried in as much detail as possible. However, data on certain aspects could not be found and in some cases scenarios have been drawn up, with the lowest scenario being used for analysis. The environmental impacts calculated in this study can thus be seen as minimum impacts; in all likelihood, the actual impacts will be greater. The analysis takes the Dutch mink farming practice as a starting point:

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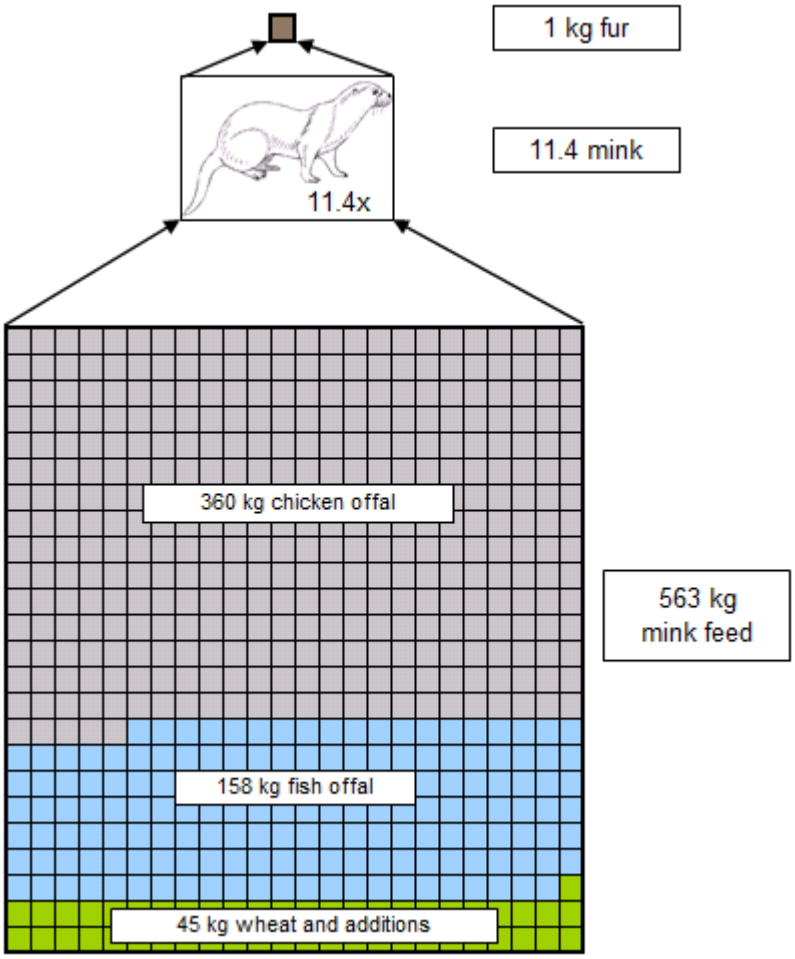
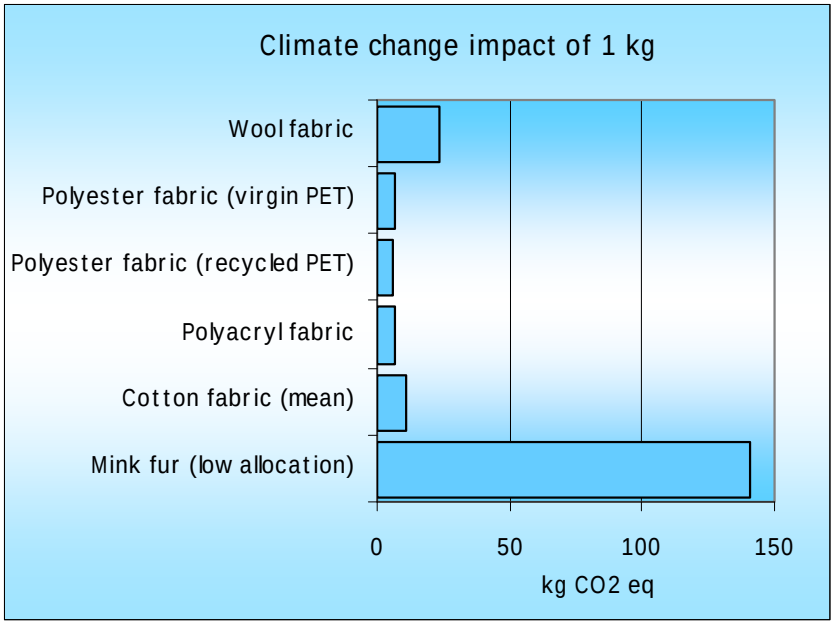
of all the mink fur on the world market, 10% originates from Dutch mink farms, making the Netherlands the world's third-largest mink pelt-producing country. Given a limited variation between countries in the crucial parameters, such as feed, results can be considered relevant for other European mink fur production.

Results

To produce 1 kg of fur requires 11.4 mink pelts, i.e. more than 11 animals. In the course of its lifetime, one mink eats almost 50 kg of feed (including the share of the mother animal), resulting in 563 kg of feed per kg of fur.



The feed consists mainly of offal, which is of low economic value and is therefore only assigned a small share of the environmental load of chicken or fish; as the meat fit for human consumption has the highest value, it is allocated the bulk of the environmental impact. Cultivation of the wheat also has an impact. Although the total environmental impact of 1 kg of mink feed is not particularly high, the 563 kilos required to produce 1 kg of fur knocks on considerably in the total environmental footprint of fur and for 14 of the 18 impacts studied feed is the predominant factor.



Compared with textiles, fur has a higher impact on 17 of the 18 environmental themes, including climate change, eutrophication and toxic emissions. In many cases fur scores markedly worse than textiles, with impacts a factor 2 to 28 higher, even when lower-bound values are taken for various links in the production chain. The exception is water depletion: on this impact cotton scores highest.
Other factors making a sizeable contribution to the overall environmental impact of mink fur are emissions of N_2O (nitrous oxide) and NH_3 (ammonia) from the mink manure. These emissions contribute mainly to acidification and particulate matter formation.
The climate change impact of 1 kg of mink fur is five times higher than that of the highest-scoring textile (wool). This is due both to the feed and to the N_2O emissions from the mink manure.

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