

# Improvement of Reproduction in Scanblack Mink

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## Introduction

Scanblack and wildtype have identical colour-genotypes. But scanblack have one kit less per litter than wildtype.

The aim of the presented experiment was to investigate:

- 1) The possibility of creating a scanblack line with the same good reproduction as wildtype by crossing scanblack and wildtype followed by selection within the cross-line ?
- 2) The difference between reproduction result depending on whether the male is scanblack or wildtype.

## Methods

The experiment was established in 1998. Starting with 20 scanblack males and 100 wildtype females in one line (#54) and with 20 wildtype males and 100 scanblack females in an other line (#55).

Kits born by generation 0 were breed within the two lines. In generation 1 20 males and 100 females were selected from each line as breeding animals.

In 1999 the animals were mated within lines, but the kits were pooled into one line (#56). In each of the following years 200 females and 40 males were selected for breeding.

The 2/3 best part of the kits in the line/lines were preselected according to their parents information on reproduction traits. Among these breeding animals were selected by a breeding index based on information of the individual kit and its family's performance on quality, colour, clarity, weight, littersize-index and silkiness.

## Results

Crossing of scanblack male and wildtype female gave the highest number of kits at weaning (fig. 2) and the lowest percent of barren females (fig. 3). Wildtype females had one more kit at weaning than scanblack females.

This is similar to the farm average of the respective female colour-genotypes.

This difference between the two genotypes was significant in all three years.

The cross (#54, #55 and #56) seems to be at least as good as wildtype or even better according to number of kits at weaning and the percentage of barren females.

The distribution by skin colourtype on the auction, of this cross-production can be seen in fig. 4. After two years only 14 % of the production is graded as scanblack-skin (plus unknown part of the breeders). If we shall create a scanblack-line with better reproduction characteristics the distribution of scanblack skins has to increase.

## Conclusion

It is possible to create a cross between scanblack and wildtype with the same good reproduction or even better as in wildtype. The best result was achieved by using wildtype as female in the first generation. There were no significant difference in the second generation.

In the second generation only 14 % of the skins were classified as scanblack plus an unknown part of the breeders.

Figure 1. Flowdiagram of the experiments

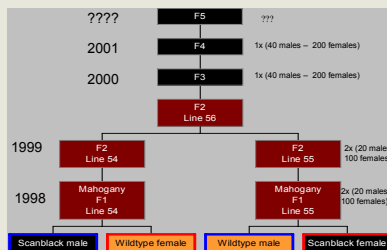


Figure 2. Kits per mated female at weaning

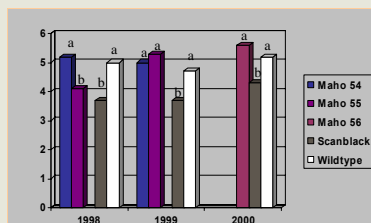


Figure 3. Percent barren females

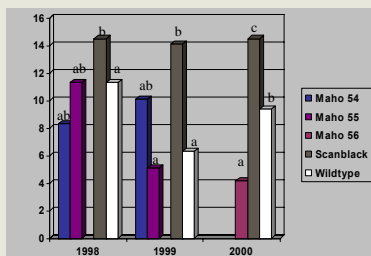


Figure 4. Distribution of skintype

