

7 Summary

A prophylactic programme for fertility in an organic dairy farm using homeopathic remedies

The main objective of the investigations was to assess the efficacy of different subcutaneously applied homeopathic compounds (Fa. Heel[®], Baden-Baden, Germany) on the fertility of dairy cows.

Compounds used were:

Carduus compositum ad us. vet. [⊕]

Coenzyme compositum ad us. vet. [⊕]

Traumeel ad us. vet. [⊕]

Lachesis compositum ad us. vet. [⊕]

Between 1998 and 2000 146 dairy cows were examined following a double blinded protocol. 76 animals were treated with the homeopathic remedies while 70 animals of the control group received placebos. All animals were treated during the peripartal period. Animals did receive the homeopathic compounds subcutaneously at the day of drying off, immediately after calving 7 and 14 days post partum.

On defined days clinical examinations of the animals as well as collection of blood samples were performed, in order to determine the the gynaecological status, the body condition score and the metabolic rate through serum profiles. In addition, data regarding fertility parameters, milk yield, cases of illness and animal wastage were collected. Investigations described in this thesis were part of a herd health program and results can be summarized as follows:

1. The lactation yield of the animals could be significantly increased compared to milk yield in pre-lactation. However, both treatment groups were similar in terms of actual milk yield.
2. The number of animals for which the start of the estrus cycle was prior to 35th day p.p. was slightly higher in the treatment group compared to the control group. Significant differences between both groups were obtained when the average daily milk yield prior to lactation was additionally considered. The fraction of animals in the group with more than 20 kg daily milk yield was significantly higher compared to the control group.

3. Days in the pre-service period and days open, could only be slightly enhanced. The delay between pre-service period and days open in the lactation was shortened although the conception rate after first insemination in pre-lactation decreased. There was no significant difference between the different treatment groups. An improved daily milk yield, considered as an antagonist to fertility, could be increased through improved care of the animals.
4. Animals in the treatment group had a higher number of days to first insemination, despite earlier cyclical activity. Animals having been in the estrous cycle and failing insemination did show no signs of estrus in the first 6 weeks p.p. It could be hypothesized, that the discrepancy between the early onset of the cycle and the prolonged pre-service period was caused by faulty insemination management. The days open tended to be equal in both groups, which may be due to improved days of service.
5. The BCS revealed a large decrease within the dry period. This may have been caused by energy deprivation. A positive homeopathic effect was not measurable.
6. Infertile animals, which showed increased time until pregnancy in the pre-lactation phase also had longer time to first insemination. Inconspicuous animals showed no improvement in regards to the days open after homeopathic treatment. The days open for these animals were also shortened. Healthier animals were able to stabilize their condition despite encumbrance.
7. Data for the serum profiles showed that no stabilization of the condition of animals was achieved by homeopathic intervention. The fraction of animals after calving with serum values initially out of reference ranges increased during the dry period.
8. Animals in the control group with increased hepatic values at the day of drying off also showed greater hepatic exposure after calving.
9. Cows with a Body Condition Score $> 3,5$ at drying off showed an increased number of cases of liver damage.
10. Incidences of mastitis or foot lameness remained unaffected by medication.
11. The rate of culling showed no difference between treatment and control group.
12. Despite an impaired fertility of the animals in the herd, the use of conventional medication, such as hormone treatment, could kept at a minimum.