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FIRST RESULTS OF A FIELD TRIAL USING BHV-1 MARKER VACCINES AGAINST BOVINE HERPES VIRUS 1 (BHV-1) IN CATTLE HERDS

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The BHV-1 eradication programs achieve more importance. BHV-1 infections causing economic losses as well as problems on the breeding market and national and international cattle trade.
The development of new BHV-1 gE deleted marker vaccines (BAYER-AG, Germany) opened a new era of chances of BHV-1 control in cattle farms.
Field trials were carried out in 3 big cattle farms (altogether 12000 cattle) which were BHV-1 infected.
There is a possibility to achieve the BHV-1 free status of cattle farms by using of BHV-1 marker vaccines. The vaccination of complete livestock is able to preserve the spreading of field infections.
Positive and doubtful ELISA results (<1 %) were clarify by laboratory or/and epidemiological investigations.
The first results of BHV-1 controlling by BHV-1 marker vaccines were successfully.

INTRODUCTION

The BHV-1 eradication programs achieve more importance. BHV-1 infections causing economic losses as well as problems on the breeding market and national and international cattle trade.
The development of new BHV-1 gE deleted marker vaccines (BAYER-AG, Germany) opened a new era of chances of BHV-1 control in cattle farms:

1. Prevention or reduction of infection risk
2. Differentiation between field virus and vaccine antibodies
3. complete vaccination of cattle farms and simultaneous safeguarding (achieving) of the BHV-1 free status of the herd and/or cattle
4. Declaration of vaccinated animals as BHV-1 free (trade regulations)
5. Decrease of the control costs and disease eradication time

METHODS

Field trials were carried out in 3 big cattle farms (altogether 12000 cattle) which were BHV-1 infected. GE-deleted marker vaccines (vivum, inactivatum) were used. Diagnostic program by using of the gE-ELISA (HerdCheck Anti IBR gE/IDEXX) was established.

RESULTS

There is a possibility to achieve the BHV-1 free status of cattle farms by using of BHV-1 marker vaccines. The vaccination of complete livestock is able to preserve the spreading of field infections.
Positive and doubtful ELISA results (<1 %) were clarify by laboratory or/and epidemiological investigations.

CONCLUSIONS

1. The first results of BHV-1 controlling by BHV-1 marker vaccines were successfully.
2. It was possible to prevent or minimize a BHV-1 field virus infection and spreading respectively. Immunized and later infected cattle did not caused a spread of field virus.
3. In a similar matter, an infection was prevented of non-vaccinated animals (control groups) vaccinated and infected herds several times.
4. The ELISA test system is principal suitable for BHV-1 control programs (1 - 2 % positive or doubtful reactions in BHV-1 negative herds) but it is urgent necessary to develop methods for clarification of suspicion or reference methods respectively.
5. The field trial in such big cattle farms must be continued because the control measures are very different to conventional cattle farms.

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