FEEDLOT

Respiratory vaccine shows positive effect on growth in Danish calf rearing operations.

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INTRODUCTION

Scientific documentation on the effect of vaccines against respiratory infections under practical conditions is limited.

When vaccines are used in a calf herd, the infectious pressure is usually complex, and the farm situation may differ from the conditions under which the vaccine has been initially tested.

OBJECTIVE

To better understand the possible effect of intranasal vaccination with a bivalent live modified intranasal vaccine (Bovilis® INtranasal RSP® Live, MSD Animal Health; nationally registered product name: Bovilis® RSP Live Vet in Denmark) in Danish calf rearing operations.

MATERIALS AND METHODS

- 2 major calf rearing operations.
- Calves housed in pens of 5-6 animals **(Fig. 1)**.
- Pen-groups divided in pairs. The paired pens were similar in respect to sex, breed and size of the calves.
- One group vaccinated on the day of arrival or on the following day and the other group unvaccinated.
- All calves also received one treatment with a long-acting antibiotic within the first week after arrival.
- Comparison between 2 groups: number of treatments for respiratory infections, daily growth, mortality during the first 10 weeks post arrival.
- Treatments within the first five days after vaccination were not included, as a protective immunity from the vaccine can only be expected after five days.

In the absence of a BRD outbreak, vaccination at arrival with a bivalent intranasal respiratory vaccine (Bovilis® INtranasal RSP® Live, MSD Animal Health) had a positive impact on daily weight gain in Danish calf rearing operation.

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RESULTS

- 712 calves were included in the trial (222 calves from one herd and 490 calves from the other).
- Table 1: average daily growth (ADG) on 2 different calf rearing operations.
- The vaccinated calves grew on average 34 grams more per day than the non-vaccinated control calves over a period of 10 weeks (p=0.017).
- No significant difference was found in the proportion of calves treated for respiratory infection or in their mortality.
- The vaccination with Bovilis® INtranasal RSP had positive growth performance effects for the calves even without a major respiratory outbreak during the trial period.

FIGURE 1. A pen of 6 animals.

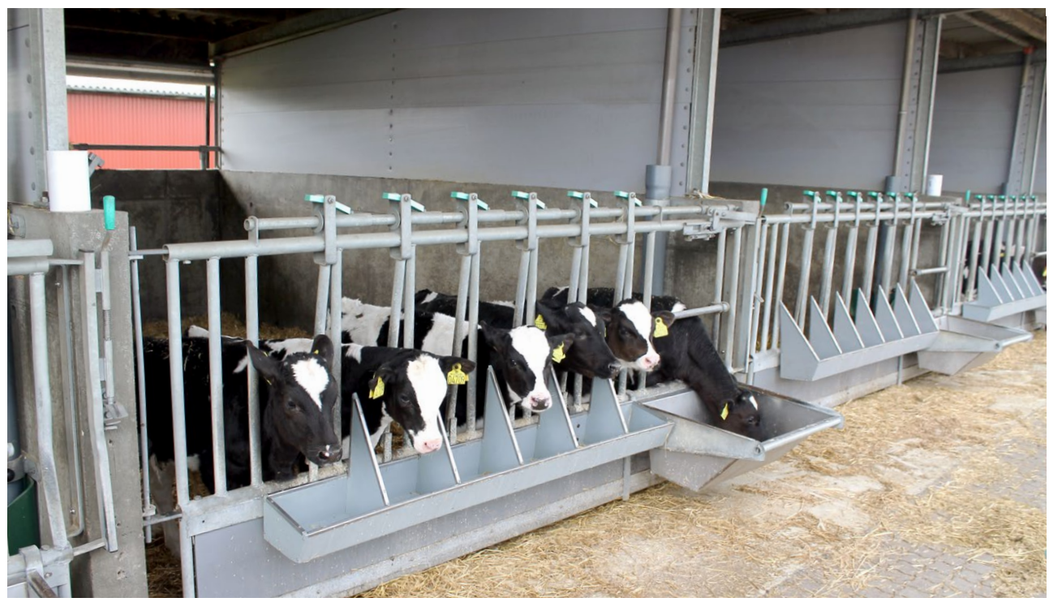

TABLE 1. Average daily growth (ADG) on the 2 different calf rearing operations.

Response-variable	Calf rearing operation A		Calf rearing operation B	
	Control	Vaccinated	Control	Vaccinated
ADG in the given period (g/day) (#animals)	1.109 (111)	1.146 (111)	983 (243)	1.012 (247)
ADG difference (g/day)	37		29	

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