

FIELD EXPERIENCE WITH A BOVINE MASTITIS VACCINE IN THE NORTH-EAST OF SPAIN

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OBJECTIVE

The objective of the study was to evaluate the efficacy of a new bovine mastitis vaccine (STARTVAC[®]) in a commercial dairy herd.

MATERIAL AND METHODS

The trial was conducted in a dairy herd with high incidence of environmental mastitis, due to coliform bacteria, CNS and streptococci species, located in the North-East region of Spain.

The trial started in March 2010, when there were 270 milking cows and the average milk production was 32L/day/cow. The average of bulk tank somatic cell count (BTSCC) was 330,000 cells/ml. Dry cows, close up cows and fresh cows were housed in chopped straw bedded pack pens. Lactating cows were housed in freestalls with chopped straw bedding.

All lactating cows, dry cows and heifers two months before calving, were vaccinated intramuscularly with 2cc of STARTVAC[®] (HIPRA), containing inactivated *Escherichia coli* J5 and *Staphylococcus aureus* SP140 strain expressing Slime Associated Antigenic Complex (SAAC). The farm used blanket vaccination, with a second dose 3 weeks later. Every four months, booster vaccination was performed and only heifers were revaccinated after 3 weeks.

Individual somatic cell counts (SCC) from monthly milk test and clinical mastitis cases were evaluated and compared with the previous year. During 2010, the farm increased by 25% the number of milking cows without any expansion in its facilities so cow density increased remarkably, making the challenge to the vaccine even bigger.

Three different parameters have been compared between two periods: from March 2009 to February 2010 (no vaccine) and from March 2010 to February 2011 (vaccination period). These parameters were:

- % of healthy animals (SCC < 200,000 cells/ml),
- % new infection rate and
- % new clinical mastitis cases.

RESULTS

The results are shown in the following graphs.

Figure 1. Percentage of healthy animals (individual SCC < 200,000 cells/ml).

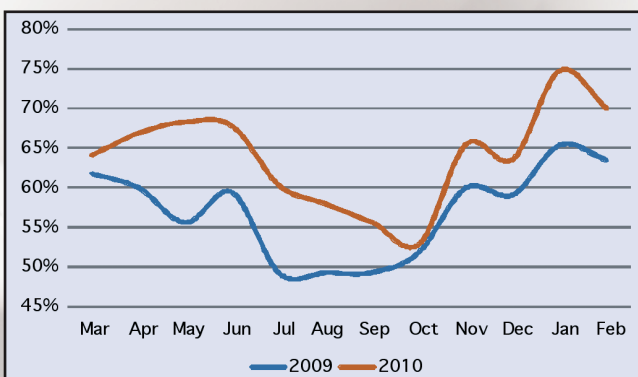


Figure 2. Percentage of new infection risk.

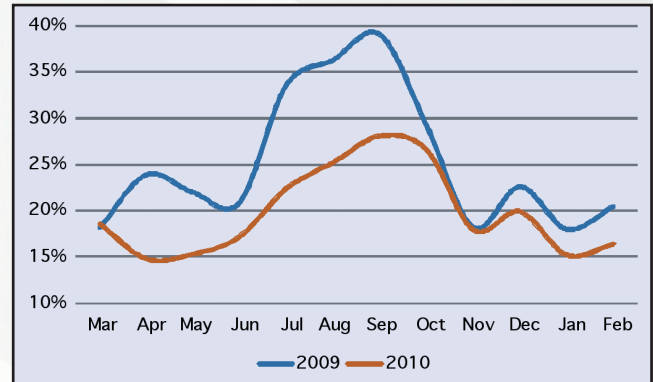
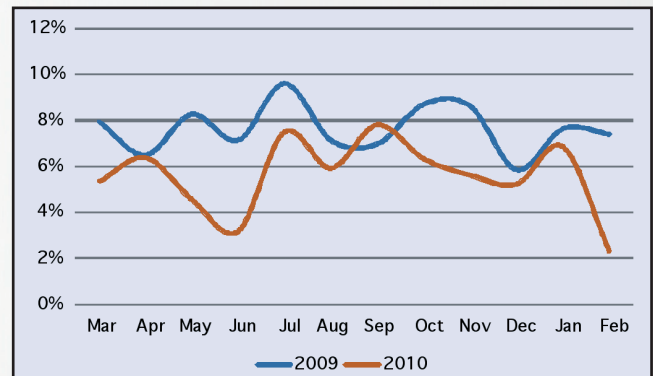


Figure 3. Percentage of new clinical mastitis cases.



CONCLUSIONS

The vaccine has been efficacious improving the udder health in the dairy farm, increasing the percentage of healthy cows, reducing the risk of new infections as well as the percentage of new clinical mastitis cases.