

Topro Calcium bolus

- whitepaper -

Research in collaboration with Aeres University of Applied Sciences Dronten conducted by Karin Kamphuis, September 2021 - January 2022

It is important for Topro Animal Health and our partners that we support the Topro products with results of field trials. We know the products work from practice use, but what do we actually measure?

The aim of this trial is to measure the effect of preventive treatment with Topro Calcium boluses on health and milk yield of dairy cows. The question arose because subclinical milk fever is still a common problem in cows around the calving.

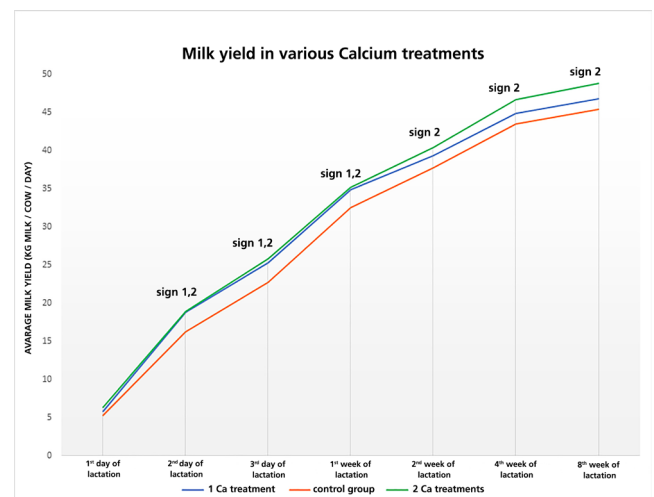
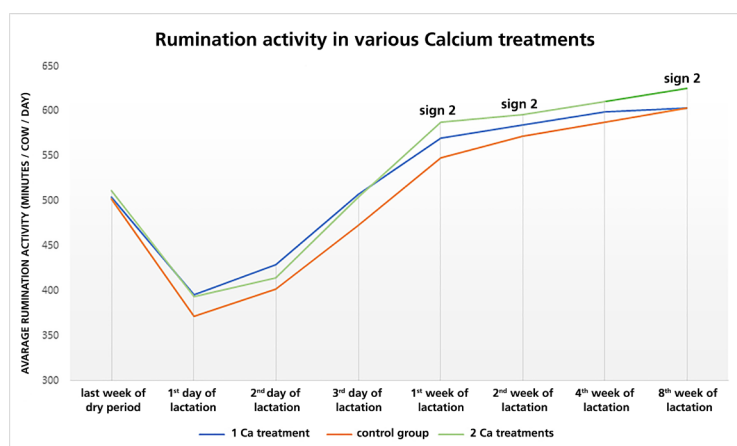
Research method

141 dairy cows participated in the study (1 control and 2 test groups). The study was conducted on 9 different dairy farms in Gelderland and Overijssel, The Netherlands. The dairy farmers were using automatic milking systems and the control and test groups experienced the same conditions on the individual farms. The test group-1 received 1 treatment, 1 day before calving. Test group-2 received 2 treatments, 1 day before and 1 day after calving (1 treatment = 2 boluses = 40 g pure calcium). This study focused in particular on rumination activity and milk production in cows around calving.

Topro Calcium bolus results

sign 1,2 = significant differences between test group-1 and control group and between test group-2 and control group ($P \leq 0.05$).

sign 2 = significant differences between test group-2 and control group ($P \leq 0.05$).



The line graphs show the rumination activity and milk yield during the study period, with data from the last week of the dry period up to and including the 8th week of lactation. It becomes visible that the rumination activity of the two test groups is higher than the control group during the entire test period. These differences are significantly measured in test group-2 from 1st, 2nd and 8th week of lactation compared to the control group. Milk production shows significant differences in the 2nd day up until the 1st week of lactation for both test groups compared to the control group. After the 2nd week the test groups do split and from the 2nd week to the 8th week of lactation, only test group-2 shows significant differences compared to the control group ($P \leq 0.05$).

Topro Calcium bolus conclusion

According to this field study, it can be concluded that preventive treatment with Topro Calcium boluses has a positive influence on rumination activity and milk production of dairy cows. An additional calcium treatment shows significantly better results than a single treatment from the 1st week of lactation.

We can conclude that by giving a 2nd calcium treatment reduces subclinical milk fever and the cow will feel fitter, which increases rumination activity (and thus feed intake) resulting in a higher milk production. Applying a double treatment of calcium is very profitable.