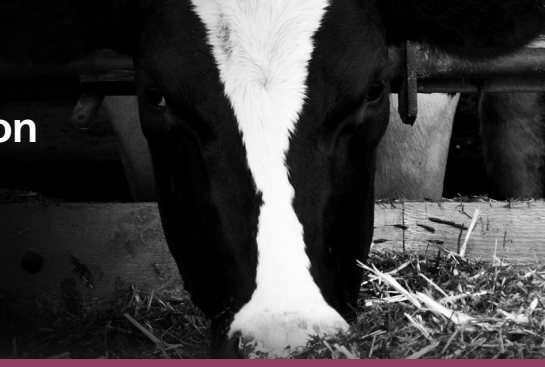
Mycotoxin syndrome in dairy cattle: characterization and intervention results

Santos R.R., and J. Fink-Gremmels. 2013. *World Mycotoxin Journal*



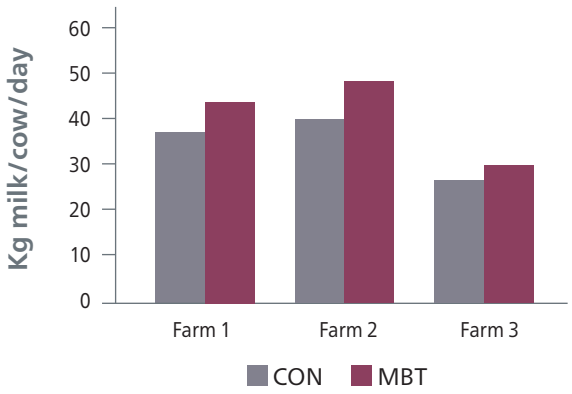
Objective: Three farms were analyzed over an eight-week period to investigate the effects on dairy cows of chronic exposure to moldy silage and to determine the potential benefits of one commercial mycotoxin binding technology (MBT). All farms showed the presence of multiple mycotoxin contamination in the TMR. Primary mycotoxins identified include deoxynivalenol (DON), zearalenone (ZEA), patulin and mycophenolic acid.

Experimental Design: Cows were fed the usual TMR until baseline measurements were taken (week 0), and then were provided with the same TMR now including MBT for an 8 week period. After the trial period (week 8), differences in milk production, somatic cell count and antioxidant activity were recorded.

TREATMENTS:

- **CON** ☐ Control diet
- **MBT** ☐ Control diet + MBT (50 g/h/d)

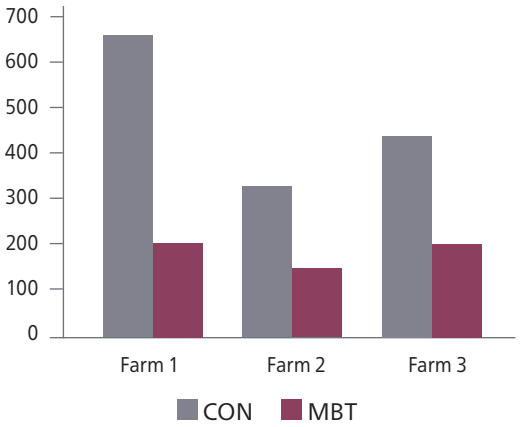
Milk Production



Important Observations

- The inclusion of MBT resulted in an average increase in milk production of 13.4 lb/cow/day.
- At all farm locations, the inclusion of MBT lowered somatic cell counts during the trial period.
- The activity of enzymes involved with oxidative stress control were improved after 8 weeks of feeding MBT.

Somatic Cell Count



Antioxidant Activity