

## TRANSITION COWS FED BMR CORN SILAGE PRODUCE MORE MILK

*By Kathleen Emery, DVM, Forage Nutritionist, Mycogen Seeds*



Researchers at Cornell University found that Mycogen® brand BMR corn silage fed to dairy cattle during the transition period resulted in a persistent increase in production and dry matter intake.<sup>1</sup> These results were published in the November 2012 *Journal of Dairy Science*.

In the study, Holstein cows entering their second or higher lactations were fed either brown midrib (BMR) or conventional corn silage during transition to determine the effects on performance during early lactation. Cows received the two different corn silage sources from three weeks pre-calving until three weeks post-calving. After this six-week period, cows were switched to lactation diets containing conventional corn silage for weeks four to 15 after calving. All other diet parameters were kept the same throughout the study.

### HIGHLIGHTS

Cornell University researchers found that BMR corn silage fed during transition resulted in higher milk production and dry matter intake.

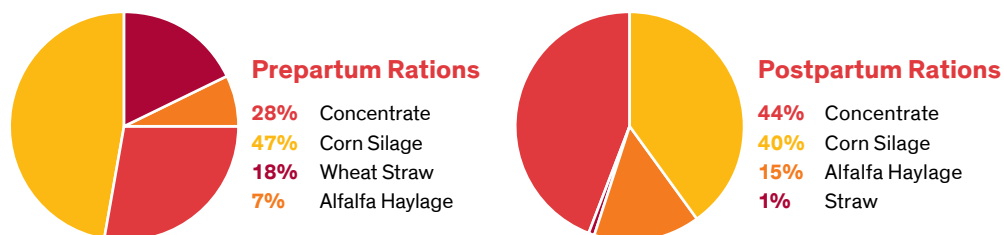
BMR-fed cows produced 5.06 lbs. more milk than cows fed conventional silage.

Cows that eat more during the last two weeks of the dry period also eat more after calving and produce more milk.

### GREATER DIGESTIBILITY FOR BMR

Prepartum rations contained 47 percent corn silage (either BMR or conventional), 18 percent wheat straw, 7 percent alfalfa haylage and 28 percent concentrate. Postpartum rations contained about 40 percent corn silage (either BMR or conventional), 15 percent alfalfa haylage, 1 percent straw and 44 percent concentrate (Figure 1).

**FIGURE 1. COMPOSITION OF TRANSITION RATIIONS**



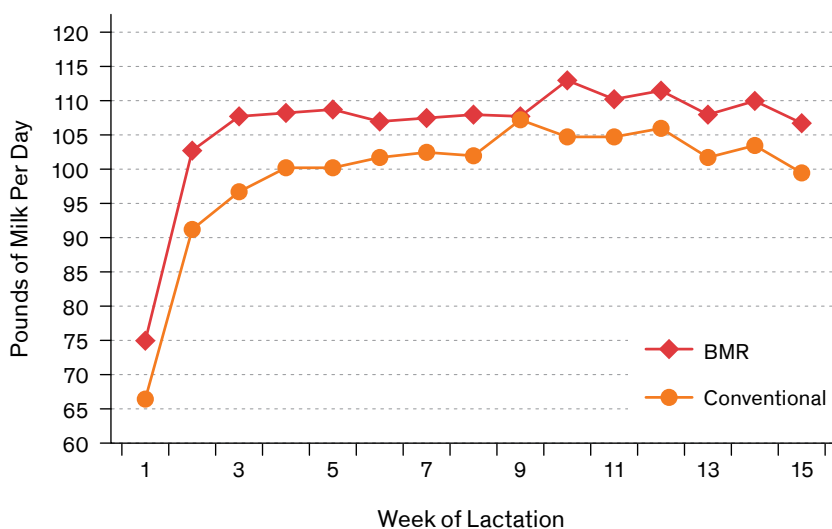
Digestibility was significantly higher for BMR silage. The Neutral Detergent Fiber digestibility (NDFD) (30 hours) for the conventional and the BMR corn silages averaged 56.8 percent and 73.8 percent, respectively.

## HIGHER TRANSITION INTAKE EQUALS MORE MILK

During the critical two-week prepartum period, BMR-fed cows consumed significantly more dry matter than the other group. This time period has been shown in other studies to be a controlling factor for intake and production after calving. When cows eat more during the last two weeks of the dry period, they eat more after calving and produce more milk. Dry matter intake for the BMR-fed cows was higher during the first 21 days after calving and, as a result, BMR-fed cows produced more milk.

Production results were averaged for the first 15 weeks of lactation. Cows fed BMR silage had higher dry matter intake during both the two-week period prior to calving and the three-week period post-calving. Milk production was 5.06 pounds per day higher for the BMR-fed cows. Fat-corrected milk (FCM) and solids rose by 6.6 pounds and 0.77 pounds per day, respectively, for cows fed rations containing BMR during transition (Figure 2).

**FIGURE 2. 3.5% FCM OF COWS FED BMR OR CONVENTIONAL CORN SILAGE DURING TRANSITION PERIOD**



Source: Cornell University

**For more information on how Mycogen® brand BMR corn silage can improve a dairy's bottom line, visit the Mycogen Seeds website at [www.mycogen.com](http://www.mycogen.com) or contact your local Mycogen Seeds representative.**

<sup>1</sup>Stone, W. C., L. E. Chase, T. R. Overton, and K. E. Nestor. 2012. Brown midrib corn silage fed during the peripartur period increased intake and resulted in a persistent increase in milk solids yield of Holstein cows. *J. Dairy Sci* 95(11): 6665-6676.

\*Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow. ©2013 Mycogen Seeds. Mycogen Seeds is an affiliate of Dow AgroSciences LLC. S47-701-566 (07/13) BR 010-13396 MYCOSILG3056 MP



**Dow AgroSciences**

Solutions for the Growing World