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Forage Producers Tech Guide-

Gene Position of the BMR Trait—How Important is it? Gene 6 as compared to Gene 18

Claims have been made about the digestibility differences between hybrids with the BMR trait positioned on gene 6 as compared to those hybrids with the gene 18 position. In order to evaluate this claim Sharp Bros. Seed Co. has compared the digestibility analysis of gene 6 with the gene 18 hybrids. We have also evaluated the studies conducted by independent research. Following are our studies and a synopsis of Texas A+M's study at Bushland, Texas.

Forage Sorghum BMR Gene Position Comparison-Early Season-Sampled July 29, 2002-Healy KS

	<u>% crude protein</u>	<u>%lignin</u>	<u>% IVTD</u>	<u>Gene Position</u>
Canex BMR 208 (preboot)	10.99	4.92	80.29	18
Dividend BMR (preboot)	11.45	5.35	80.05	6
Canex BMR 310	11.05	4.74	79.67	18

When harvested early in the preboot to boot stage the gene 6 hybrids digestibility fell between the two gene 18 hybrids. All three hybrids had excellent digestibility with little variation between the three.

Forage Sorghum BMR Gene Position Comparison-Late Season-Sampled Sept. 29, 2002-Healy KS

	<u>% crude protein</u>	<u>% lignin</u>	<u>% IVTD</u>	<u>Gene Position</u>
Canex BMR 310 (hard dough)	9.88	4.48	74.10	18
Canex BMR 208 (hard dough)	9.69	4.61	71.05	18
Dividend BMR (hard dough)	9.54	9.19	66.35	6

In the hard dough stage, digestibility of the two gene 18 hybrids was superior to that of the gene 6 hybrid.

**Forage Sorghum BMR Gene Position-Late Season-Sampled
September for 2002-Gray County KS**

	<u>%crude protein</u>	<u>%lignin</u>	<u>%IVTD</u>	<u>Gene Position</u>
Canex BMR 310 (hard dough)	8.47	3.40	74.74	18
BMR 100 (hard dough)	7.49	5.94	72.60	6
Dividend BMR (hard dough)	7.87	4.79	71.02	6

Again, in another setting, digestibility of the gene 18 hybrids was superior to that of two gene 6 hybrids.

Forage Sorghum BMR Gene Position Comparison-Texas A+M University-Bushland Texas-2002 (This is an abbreviated sampling of BMR forages entered in the Bushland trial in 2002. Only forage sorghums with known gene BMR positions are included in this sampling.)

	<u>% IVTD</u>	<u>Gene Position</u>
Canex BMR 310	82.7	18
Canex BMR 208	81.7	18
BMR 106	80.3	6
BMR EXP 2201	79.3	6
BMR 100	78.0	6
Dividend BMR	77.3	6

When reviewing this independent study, we see no evidence that gene 6 forages are superior in digestibility to gene 18 forages. At Sharp Bros. Seed Co. we will continue to evaluate digestibility on a hybrid by hybrid basis.

% IVTD: the abbreviation for percent in vitro true digestibility. This is the digestibility rating assigned to a feedstuff based upon laboratory analysis with rumen fluids.