

Feeding Candy to Cows for Better Feed Mixing

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Since feed costs have dramatically increased during the past year, obtaining maximum feed conversion into cattle weight is a necessity. Improving feed efficiencies involves using feeds in the right combinations. While a precise ration can be calculated, the actual act of mixing the ration needs evaluation.

On-farm ration mixing performance was evaluated using edible markers. The candies used as edible markers were 'Good and Plenty' and 'candy corn'. The edible markers were added to the feed mix at one piece per pound or 2000 pieces per ton. The edible marker was added to the feed mix in conjunction with the supplement portion of the ration.

The ration mix was sampled from the feed bunk during feed delivery. Samples were taken at the beginning, middle, and end of the feed bunk. The feed samples were weighed and candies were counted. The samples were also subsampled and sent to a feed laboratory for nutritional analysis.

Table 1 shows the result from one mixing evaluation. Coefficients of variation less than 5 percent are ideal. Producers found that feed mixing wasn't adequate and discussed alternatives to improve uniform feed mixing. Mixer wagon repair, order of addition of the ingredients to the ration, and mixing beyond rated capacity were major areas needing improvement.

Table 1. Evaluation of feed mixing using an edible marker.

Candy	Candy corn Observations	Good & Plenty Observations	Combined Observations
First 1/3 of feedbunk	13	9	21
Second 1/3 of feedbunk	2	7	9
Last 1/3 of feedbunk	8	7	15
Standard Deviation	5.508	1.155	6
mean (Average)	7.67	7.67	15.00
Coefficient of Variation	71.84	15.06	40.00

Feed Analysis	Dry Matter %	Crude Protein %	Acid Detergent Fiber %	Calcium %
First 1/3 of feedbunk	65.3	12.09	10.21	0.9
Second 1/3 of feedbunk	64.02	10.61	12.78	0.64
Last 1/3 of feedbunk	65.81	11.84	9.7	0.86
Standard Deviation	0.922	0.792	1.651	0.14
mean (Average)	65.04	11.51	10.90	0.80
Coefficient of Variation	1.42	6.88	15.15	17.50