



# Did you know that Ingredient Deterioration may Impact Performance of Feedlot Supplements?

By: Dr. Clint Parsons, Director of Feedlot Nutrition

New proprietary information has come to light in regards to wet byproduct's ability to maintain ration consistency over time. Research completed at two of Suther's client

feedlots, indicate that these ingredients, as they deteriorate in the bunk, might lose some, if not all, of their ability to maintain the diets integrity.

**The financial impact:** Rations that separate can increase feed conversion 3% to 5% and elevate feed cost of gain by **\$5.00 to \$10.00** per head.

**Research Overview:** Feedlot A, Diets were sampled over two days at the time of feeding, four hours after feeding and again at eight hours after feeding. Samples were analyzed for primarily calcium, as added calcium from the supplement represented greater than 95% of total dietary calcium. Timed sample results were combined for the two days and are shown in (Figure 1).

### Feedlot Rations Profiles:

Feedlot A (DM):

- 60% Dry rolled corn
- 30% Blended wet by-product
- 6% Dry forage
- 4% meal (non-pelleted) supplement

Feedlot B (DM):

- 73% Dry rolled corn
- 13% Wet byproduct
- 10% Dry forage
- 4% Liquid Suspension Supplement

### Is Ration Separation Costing your Feedyard?

\$ \_\_\_ Ration Cost /Lb DM

\_\_\_ Daily Consumption  
(25 lb. avg. intake)  
Multiply by:

\$ \_\_\_ Cost/hd./day  
Multiply by:

3% Improvement in F/G  
Multiply by:  
\_\_\_ Days on Feed

\$ \_\_\_ Equals Opportunity  
Cost of Ration Separation

Analysis results from the timed sampling were then used to estimate the impact of diet separation on the concentration of Rumensin (Figure 2).

Wind seemed to have a dramatic effect on dietary ingredients with meal supplements. (Figure 3).

In a second experiment, Feedlot A's diets were fed the same diet twice per day. Diets were sampled over one day four times, at the time of the feeding and plus four hours (Figure 4). Same sampling procedures for calcium.

Feedlot B, Diets were fed one time per day, Diets were sampled over three days, at the time of feeding, four hours after feeding, and again at eight hours after feeding. Again, samples were analyzed for primarily calcium (Figure 5).

