

Areas to Evaluate when Troubleshooting and Resolving Nutritional Problems in Dairy Herds



By: Donna Amaral-Phillips, Ph.D.

Often the formulated ration (and the nutritionist who formulated the ration) gets blamed when cows do not milk as well as expected or health issues arise in the herd. Most nutritional problems are often a combination of several factors that have changed which result in a decrease in milk production, growth or health problems. The formulated ration can be the problem, but other management-related factors can contribute to the problem. Often, changes in management practices are needed to resolve the problem. The following table highlights some of the areas that should be investigated to resolve some of the common nutritional management related problems seen in dairy herds.

Troubleshooting Nutrition Problems for the Dairy Herd

Nutritional Problem	Areas to Investigate to Resolve Problem
Cows not milking as well as expected	<ol style="list-style-type: none"> 1. Evaluate feeding management program for milking cows (Is the ration being fed and consumed equal to the one being fed? Review actual feeding and management practices) 2. Evaluate changes in quality of forages being fed 3. When was the last time a ration was balanced for the milking herd? 4. Has the herd veterinarian evaluated the overall health of the herd 5. How many cows are recently fresh (average number of days in milk)? 6. Evaluate water availability and quality issues



Nutritional Problem	Areas to Investigate to Resolve Problem
Low butterfat content (less than 3.5% for Holsteins)	<ol style="list-style-type: none"> 1. Re-evaluate ration actually being fed (and consumed) to see that it meets the nutrient requirement of cows 2. How many pounds of grain are fed at each feeding- (less than 8 lbs per feeding period of 4 hrs) if not fed as a TMR 3. Evaluate amount of effective fiber (chew factor) fed 1) Are cows fed long stem hay? 2) Are cows sorting the TMR being fed? 3) Is the TMR mix overmixed and particle size reduced? Long forage should be the length of a cow's muzzle (2 inches) after processing in a TMR. 4. For TMR mixes, is the feed being mixed and delivered to feedbunk without separation of ingredients
Feet problems- Laminitis (other than hairy heel warts and foot rot)	<ol style="list-style-type: none"> 1. Evaluate ration fed and consumed by cows (Specifically look at NSC (starch) content of diet) 2. Evaluate diet consumed by cows for adequate amounts of effective fiber (chew factor to stimulate cud chewing)
High MUN's (Milk Urea Nitrogen content of milk) (MUN greater than 14 mg/dl)	Evaluate the diet consumed by the cows (specifically protein fractions and NSC (starch) content)
Diarrhea	<ol style="list-style-type: none"> 1. Is this a herd problem or does it affect individual cows? 2. Has their local veterinarian evaluated the health of these cows affected? (ie. Winter Dysentery, Salmonella, Johne's Disease) 3. Evaluate specifications of ration actually consumed by cows 4. Ruminant Acidosis issues?
Displaced abomasums (twisted stomachs) in mid-lactation cows	<ol style="list-style-type: none"> 1. Evaluate effective fiber of the diet consumed by the milking herd (length of time TMR mixed, amount of grain fed in 4 hr time period) 2. Evaluate amount of sorting by the cows 3. Evaluate macro-mineral (Calcium) content of the milking cow diet
Displaced abomasums (twisted stomachs) in cows within 45 days after calving	Evaluate transition of cows onto the milking cow ration as well as feeding management program 21 days prior to calving

Nutritional Problem	Areas to Investigate to Resolve Problem
Milk fever in fresh cows	<ol style="list-style-type: none"> 1. Evaluate macromineral (potassium, phosphorus, sodium, sulfur, and chlorine – and adequate calcium) content of diet fed 21 days prior to calving 2. Anionic salts being fed and fed properly
Retained placenta in fresh cows (cows do not clean after calving)	Review mineral/vitamin feeding program during the dry period (ie. Selenium content as well as DCAD balance - potassium, sodium, chlorine, sulfur content of diet)
Low body condition of cows less than 60 days in milk	<ol style="list-style-type: none"> 1. Evaluate transition into the milking herd- cows provided adequate feedbunk and resting space 2. Evaluate dry cow and close-up dry cow programs (Are cows adjusted to the forages and increased grain amounts prior to calving?) 3. Evaluate feedbunk management for the milking herd to make sure adequate bunk space and feed is provided for pre-fresh and fresh cows to eat
Dry cows losing weight	Evaluate feeding program for dry cows– quality of forages being fed, pasture availability, heat stress, and amount of grain being fed relative to forage quality
Calving problems in heifers	<ol style="list-style-type: none"> 1. Evaluate body condition of heifers prior to calving– Are they over conditioned? 2. Evaluate feeding program for heifers
Heifers calving too small	Evaluate feeding program for heifers– <ul style="list-style-type: none"> • Are rations balanced for heifers after forages are tested for their quality? • Review pasture management as it relates to quality and quantity
Feet problems in first-calf heifers seen shortly after calving	<ol style="list-style-type: none"> 1. Evaluate heifer feeding problem to make sure heifers are getting a properly balanced diet 2. Are hairy heel warts beginning in the bred heifer group?