

**Designing Rations and
Troubleshooting on Dairies**

Mark McGuire
University of Idaho


Designing Rations

- Has to start with forage
 - Quality and availability



Quality of forage

- Harvested at correct maturity and moisture
- Packed well
- Sealed
- Good face management



Large Piles of Silage



Designing Rations

- Has to start with forage
 - Quality and availability
- Must understand the operations and limitations of the farm
 - Must feed certain feeds since they are grown by brother/cousin/etc. no matter the quality
- Add other ingredients to meet nutrient needs affordably

Troubleshooting Nutrition on Dairies

- Gather information from reliable sources
 - Milk yield & composition
 - Bulk tank
 - Pen averages
 - By DIM
 - By parity
 - History - Previous month, year
 - Any idea on dry matter intakes?
 - By pen
 - By DIM
 - overall
- Know feed ingredients
 - Nutrient analyses
- Who mixes diet
 - Type of mixer
- How often is feed offered
 - Bunk management
 - Pushed up
- Feed inventories



Troubleshooting Nutrition on Dairies

- TMR
 - Particle size
- Rumen fermentation
 - Feet and legs
 - Fecal screens
 - Milk fat %
- Cows
 - Milk yield
 - Feet and legs
 - Locomotion scoring
 - Incidence of metabolic disorders
 - Milk fever, ketosis, DA
 - When do they occur?
 - Body condition score
 - Reproduction