

Herd Signalment

Herd size _____ Breed of cows _____ Herd milk production _____

Herd Problem/Complaint _____

Herd Records to Obtain:

1. Herd Production Records - If no DHI, bulk tank milk production and milk components from pick up data
 - *Current herd average*
 - *Peak milk production by lactation*
 - *ME milk production for the last year (herd & by lactation)*
 - *Milk production by month (kg/cow/day)*
 - *Fat and protein by month*
2. Disease Rates - evaluated as crude incidence rates (the number of cases in a 1-year period divided by the average herd size for the same 1-year period); consider by parity, time of year, or specific at-risk groups of cows
 - *Milk fever*
 - *Ketosis*
 - *Retained placenta*
 - *Displaced abomasum*
 - *Metritis*
 - *Lameness*
3. Herd removals (sold and died cows) for the last year by days in milk at removal

Cow Environment

Amount of eating space available

Gp _____	Space _____	# Cows _____	= _____ cm/cow
Gp _____	Space _____	# Cows _____	= _____ cm/cow
Gp _____	Space _____	# Cows _____	= _____ cm/cow

Time cows have access to feed bunks _____

Cleanliness of feed bunks _____

Number of waterers per pen _____ Cleanliness _____

Gp _____	Average Stall Size _____	Number of stalls _____	# of cows _____
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Gp _____	Average Stall Size _____	Number of stalls _____	# of cows _____

Calculated stocking density _____

Type and amounts of bedding _____

Overall cleanliness of the cows _____

Evaluation of the Cows

Body Condition Scoring % Too thin _____ % Too fat _____

Cud Chewing Activity - minimum of 40% of cows not eating are chewing their cud Yes No

Manure Evaluation

- undigested corn particles
- acidic smell
- loose manure
- putrid odor to the manure

Locomotion Scoring - 1 for no visible lameness, 2 for slight lameness, 3 for moderate lameness, and 4 for severe lameness.

% 1 _____ %2 _____ %3 _____ %4 _____

Examination of Affected Cows: PE or Necropsy Diagnoses _____

Biological testing conducted: Ruminal pH Serum BHB NEFA Urinary pH MUN or BUN

Daily Feeding Schedule (time/frequency) _____

Evaluating Individual Feed Ingredients

Initial Evaluation of Feed Ingredients – visual appraisal and smell of fermented feeds

Feed Ingredient Dry Matter (see Table 3)

Frequency of dry matter monitoring for corn silage & haylage _____

Current dry matter content of ensiled feeds _____

Forage Particle Length (see Table 4)

– Assess via Penn State Particle Separator (PSPS) for individual forages in the diet and each TMR fed to the herd

Grain Particle Size (see Table 6) - assess if corn is the major grain component of the diets

Diet Evaluation

Estimating Amounts of Feed Ingredients Eaten

1. Amount of feed offered (individual cows or group) – ask for copy of feeding/load sheet
2. Estimate the nutrient analysis of feed ingredients - Visual appraisal of each ingredient to spot inappropriate processing or inadvertent errors in feed mixes
 - book values ok for most standard concentrate ingredient; corn should be sampled at least once each crop year
 - by-product or unusual waste feeds have an inconsistent nutrient profile; each delivery could require new analysis
 - complete feed tags for commercial mineral feed ingredients may be used as the sole source of nutrient analysis
 - forages - ask for current forage analysis or submit new sample
3. Amount of feed refused by the cows – collect and weigh
 - Composition of the feed refused by the cows (if the refusals seem to be visually different from the TMR offered)
 - Total Mixed Ration Sorting Analysis (see Table 5) - compare particle length of fresh TMR and refusals
 - o Increase of 5-10% long particles from TMR offered to TMR refused is moderate sorting; > 10% increase = severe
4. Estimating Total Nutrient Intake by the Cows
 - enter feeding amounts and feed ingredient nutrient compositions into a dairy ration evaluation program to calculate total nutrient intakes.

Evaluating Accuracy of TMR Mixing

1. Observe mixing - watch the mixer scale weights as feed ingredients are added and compare to TMR load sheets

 - o Evaluate accuracy of the mixer scales if there is any concern about accuracy.
2. Visually inspect TMR as discharged
 - TMR looks the same from start to finish
 - Long hay particles evenly distributed through the mix
 - No unprocessed, large chunks that are distinct from the rest of the TMR
3. Total Mixed Ration Bunk Sampling – best done immediately after fed (no sorting yet)
 - o Collect 12 handfuls of TMR from start to end of discharge from mixer into 20L bucket
 - o Dump bucket onto clean table, mix gently, separate TMR into 4 distinct quarters.
 - o Randomly discard two-quarters, remix remaining two-quarters, repeat quartering and random discarding until
 - a. 6 cups of TMR for PSPS
 - b. 3 cups of TMR for wet chemistry analysis at lab (request lab dry & grind entire sample submitted)