Systems impact on health issues

Dairy Grazing Conference 2009
Tessa Marshall, Scott Poock
University of Missouri
Systems

- Confinement
- Hybrid
- Management Intensive Grazing (MIG)
Confinement

- Everything happens all the time
- Short lag between management modification and effect realization
- Continuum of health issues
Management Intensive Grazing

- Seasonal management
- Seasonal diseases
- Lag time between management change and realization of effect
Winter/Fall
• Dry period 50 days
• Farm maintenance
• Vacations

Spring
• 6-10 week spread

Spring/summer
• Conserve pasture
• 83 days to breed back

Summer
• Pregnancy confirmation

Farm cycle
Dry off → Calving
Lactation → Breeding
Management Intensive Grazing

• Seasonal management
• Seasonal diseases
• Lag time between management change and realization of effect
Seasonal challenges

• Feed requirements
• Weather
• Variation in feed quality
  – energy
• Use of conserved feed
• Stocking rate
Hybrid Farm cycle Adaptation

- Two calving seasons
- Milk all year
- Mix of TMR and Grass

Dry off → Calving

Lactation

Breeding
Hybrid

- Bi-seasonal approach
- MIG during suitable growing months
- Feed bunks when pasture growth stops
Systems comparison on health

• All have significant HUMAN effect
• Similar diseases recognized
• Gratification isn’t instantaneous in hybrid and MIG
• Environment is important for all systems – especially for animal welfare
• Herd health budget spending is diverse
Environment
The 3 M’s!

• Measure
• Monitor
• Manage
• Improve performance
• Detect problems before they become BIG problems
• Pro-active vs Re-active
What is the purpose of measuring?

• Don’t measure unless you are willing to react!
• It will be of no use to change something that we cannot assess, whether it is success or failure!
Data Recording

- Software
- Microsoft Excel or Access

<table>
<thead>
<tr>
<th>Cow #</th>
<th>Pen</th>
<th>Lact</th>
<th>DIM</th>
<th>Score</th>
<th>Outcome</th>
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Lact = lactation #
DIM = Days in milk
Score = see sheet on scoring
Outcome = ok, loss of quarter, sold, died, etc.
What can we monitor??

- Calves:
  - Scours
  - BVD PI
  - Parasites
  - Failure of passive transfer

- Cows:
  - Milk quality
    - BTSCC
    - pathogens
    - Johnes disease
    - Lameness
    - Foot rot
    - HHW
    - Laminitis
    - BCS
    - Repro
Data Collection

• Who is going to do the collecting of data?
• What will be used for a data sheet?
802 Herd Summary - Stage of Lactation and Udder Health

STAGE OF LACTATION PROFILE

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<thead>
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<th>Stage of Lactation (Days)</th>
<th>0-59</th>
<th>60-109</th>
<th>110-169</th>
<th>170-230</th>
<th>231-280</th>
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CURRENT SOMATIC CELL COUNT SUMMARY

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YEARLY MASTITIS SUMMARY

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802 Herd Summary - Stage of Lactation and Udder Health

UNIV. OF MO FOREMOST DAIRY - 43090006
Date of Test 5/29/2009
Overall Herd

STAGE OF LACTATION PROFILE

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* SCC data in this table are always displayed as linear scores.

CURRENT SOMATIC CELL COUNT SUMMARY

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<th></th>
<th>% Cows by SCC Score</th>
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YEARLY MSTITIS SUMMARY

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<th>Date</th>
<th>% Cows by SCC Score</th>
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0% Page 1 of 1
### SOC Data

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* SOC data in this table are always displayed as linear scores.

### Yearly Mastitis Summary

#### % Cows by SOC Score

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<th>6, 586,000 - 1,130,000</th>
<th>7, 8, 9 over 1,130,000</th>
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| Average      | 66                      | 13                   | 0                    | 5                      | 7                      | 2.0      | 282    |

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Record usage

• Annual consultation with veterinarian
  – Mastitis control
  – Dry-off plan
  – Plan prior to calving for fresh-cow mastitis management
  – Review PMO and milking technique
We want monitoring to appear boring!!

Incidence of Clinical Mastitis Cases per Month

(Goal < 2 cases/100 cows/month)
However, sometimes it is not boring!!
Define action points!

• Need to know what to do with information outside of expected
• Can you fix it yourself?
• Do you need to outsource help?
• What do you do with a spike in SCC?
  – Identify problem cows – how?
  – Treat or cull? How do you decide?
  – What do you treat with?
  – Was there a management change attributable to the spike?
• Increase in clinical mastitis at calving?
  – Where do you start?
    • What age group is affected? Or is it all cows?
    • What is the milking protocol?
    • How is clinical mastitis being diagnosed?
    • Did you hire an over enthusiastic milker?
    • What bug is causing it?
Final words of advice

• Seek advice when appropriate
• Assess economic impact of a change in management system
Questions/Comments?