University of WI-Madison School of Veterinary Medicine
Class of 2012
Ambulatory Rotation Data Summary

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Introduction

In the attached report, we present general management and facility, cow therapeutics and calf related information gathered from WI and IL dairy farms served by veterinarians in the 25 participating practices for the UW School of Veterinary Medicine’s ambulatory rotation this year. Thank you for your cooperation and assistance. We look forward to your feedback on this project, comments on the report and good ideas for the Class of 2013 ambulatory experience!
**Question 1:**

For tiestall/stanchion barns, score the hock appearance of the lactating cows for evidence of trauma or injury using the point system below.

0=Normal/No injury  
1= Hairloss but no broken skin  
2= Ulcer or Swelling

**Response (Figures 1.0, 1.1):**

These data come from 2,788 cows that are housed in facilities other than free stall barns on 69 farms. As shown in the charts below, the majority (75%) of cows (n=2,087) in this setting have normal appearing hocks.

![Hock Appearance Score Lactating Dairy Cattle](Figure 1.0)
Question 2:

For preweaned calf housing, categorize the dairy as to the type of housing:
   a. Individual or Group Pens
   b. Indoor (Barn) or Outdoor
   c. Ad-lib or Restricted Feeding

Response (Figure 1.2):

The majority (207 of 247) of dairies house the preweaned calves in individual pens. The housing type for preweaned calves is equally distributed between indoor (n=122) and outdoor (n=123) facilities. While the majority of ad-libitum milk or milk replacer-fed calves are the ones from group pens, calves from 12 farms with group pens had a restricted milk allowance whereas calves on 11 of the dairies with individual pens had ad-libitum access to milk/milk replacer.
Question 3:

In the primary adult cow housing facility on the dairy, what time of day are the lights turned on? At what time in the evening are the lights turned off? Calculate the number of hours per day that the cows are under lights.

Response (Figure 1.3):

No clear trends emerge in the number of hours of lighting in 119 adult cow-housing facilities.
Question 4:

What proportion of tiestall/stanchion barns have gutter grates? For both freestalls and tiestall barns, what type of bedding is used?

Responses (Figures 1.4, 1.5, 1.6):

Of 32 tiestall/stanchion barns observed, 50% had no gutter grates. Other than concrete, the primary stall surface found on 58 freestall and tiestall dairies was a mattress (94%). While bedding type for lactating cows varied on 79 dairies, straw (29%) and sand (52%) were the predominant choices.
Proportion of Tiestall/Stanchion Barns with Gutter Grates (32 farms)

- No Gutter Grates: 52%
- Some Gutter Grates: 16%
- All Gutter Grates: 32%

Other than Concrete, stall surfaces in Freestall and Tiestall herds (33 farms)

- Matress: 94%
- Waterbed: 6%

Bedding type used in Freestall and Tiestall herds (79 farms)

- Straw
- Sand
- Shavings
- Corn Stalks
- Rice Hulls
- No bedding

Figure 1.4
Figure 1.5
Figure 1.6
Question 1:

What is the dairy’s approach to retained placenta? Responses may be treatment or no treatment. If treatment, characterize treatment into one of the categories below.

- a. Systemic antibiotics
- b. Intrauterine infusion
- c. Hormonal therapy
- d. Supportive care – e.g. dextrose, B-vitamins, NSAID drugs
- e. Combination of the above

Response (Figures 2.1, 2.2):

The majority (84%) of the 220 dairies that responded to this question treat cows with a retained placenta. Systemic antibiotic administration is the primary treatment on 40% of the dairies; 19% of the dairies infuse the uterus as the primary treatment and 21% of dairies use a combined treatment approach.
Question 2:

For each dairy, determine whether the milk or meat residue testing is done on the farm or off of the farm (e.g. milk plant or veterinary clinic). For on-farm testing, what test or product is used?

Response (Figures 2.3, 2.4, 2.5):

Milk residue testing (n=232 dairies) is more common than meat residue testing (n=73) on the dairies surveyed. The majority of the residue testing is done off of the farm, 56% for milk and 96% for meat residue testing. Delvo-SP Mini is the most common milk test used on the 44% of farms that do milk residue testing on farm.
Question 3:
What is/are the most common treatment(s) for ketosis on the dairy? Are most cows with ketosis less than or greater than 14 days in milk (DIM)?

Response (Figures 2.6, 2.7, 2.8):  
Of the 216 dairies questioned, 90% found that ketosis occurs in cows less than 14 DIM. Propylene glycol alone or in combination is the most common ketosis treatment (55% of farms). Intravenous dextrose is the sole treatment on 24% of dairies or is the primary ingredient of a combination that can include a corticosteroid, B-vitamin, electrolyte mix and/or rBST on another 11% of dairies. From the 210 treatments reported, corticosteroids were only used in a combined treatment regimen. Only 1 farm reported insulin use for cows with ketosis.
Percent of Dairies Reporting Onset of Ketosis By DIM

- 90% reporting within <14 DIM
- 10% reporting >14 DIM

Figure 2.6

Ketosis Treatment on 210 Dairy Farms

- Propylene Glycol
- Propylene Glycol Combination
- Dextrose
- Dextrose Combination
- Steroid
- Steroid Combination
- Vit B
- Vit B Combination

Figure 2.7
Question 4:

On the dairies that use artificial insemination for the breeding program, who does the breeding? What type of breeding program (e.g. heat detection, type of synchronization program) is used for first service on lactating cows?

Response (Figures 2.9, 2.10. 2.11)

For 125 Wisconsin dairies that use artificial insemination to breed cows, 32% have a specialized farm employee do the breeding, 27% of the dairies use an unattached AI technician, and another 28% use AI company technicians. Conventional heat detection is used on only 30% of the dairies. For the 70% of dairies using timed breeding programs, OvSynch is used by the majority (58/87=67%), Pre-synch by 21 of 87 (24%), Double OvSynch by 5 of 87 (6%) and G6G by 3 of 87 (3%).
Who Performs the Artificial Insemination on Dairy Farms

- Owner/Herdsperson: 32%
- ABS: 23%
- Select Sires: 3%
- Accelerated Genetics: 12%
- Unattached AI technician: 30%

Figure 2.9

Breeding Programs for First Service of Lactating Dairy Cows

- Heat Detection
- Pre-synch
- Double Ov-synch
- G-6-G
- Ov-Synch

Figure 2.10
Question 5:

Who does the routine hoof trimming on the dairy? Are bred heifers trimmed routinely before calving? How many times are the cows trimmed per lactation?

Response (Figures 2.12, 2.13, 2.14):

From a sample of 70 dairies, most (79%) contract an outside hoof trimmer for routine and lameness footwork. Only 14% use farm personnel for trimming done on the farm. Most farms (67%) do not have the bred heifers trimmed prior to calving. From a sample of 43 dairies, 9% do not schedule any routine trimming, 65% trim once a year, 16% twice and 9% three times per year.
Who Performs Routine Hoof Trimming

- On Farm Personnel: 79%
- Outside Hoof Trimmer: 14%
- DVM: 4%
- No Trimming: 3%

Figure 2.12

Bred Heifers Trimming Routine prior to Calving (15 herds)

- Bred Heifers Trimmed: 33%
- Bred Heifers Not Trimmed: 67%

Figure 2.13
Frequency of Trimming on 43 Dairy Farms

<table>
<thead>
<tr>
<th>Frequency of Trimming</th>
<th>Number of Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Routine</td>
<td>5</td>
</tr>
<tr>
<td>Once a year</td>
<td>25</td>
</tr>
<tr>
<td>2x a year</td>
<td>5</td>
</tr>
<tr>
<td>3x a year</td>
<td>5</td>
</tr>
</tbody>
</table>

Figure 2.14
Question 1:

Relative to dehorning calves on the dairy, answer the following questions.

a. Who dehorns?
b. At what age is dehorning performed?
c. Is local anesthesia used?
d. Is a non-steroidal drug (NSAID) like banamine administered?
e. What dehorning method is used, e.g. caustic paste, heat, gouge?

Response (Figures 3.1, 3.2, 3.3, 3.4, 3.5)

The majority (56%) of 186 dairy farms dehorn their own calves. The age at dehorning ranges from 1 week old to more than 3 months. The most frequent age at dehorning was 1-2 months (73%). For pain management during dehorning, 26% of the dairies report the use of local anesthesia but only 3% administer an NSAID. The most common dehorning method is heat (83%).

![Graph showing the number of veterinary personnel and farm personnel dehorning calves on 186 dairy farms.](Figure 3.1)
Figure 3.2

Age of Dairy Calves at time of Dehorning

- < 1 month old: 6%
- 1-2 months: 73%
- 3 months: 10%
- >3 months: 11%

Figure 3.3

Local Anesthesia during Dehorning

- Use Local Anesthetic: 26%
- Don’t Use Local Anesthetic: 74%

Figure 3.4

NSAID during Dehorning

- Non-Steroidal drug Administration: 3%
- No Non-Steroidal drug Administration: 97%
Question 2:

What is the number of animals in the first group pen into which calves are moved after weaning? Categorize the answers into two categories, one for dairies in which preweaned calves are in single pens and a second for dairies whose preweaned calves are in group pens.

Response (Figures 3.6, 3.7):

From a sample of 198 dairies, most (48%) have post-weaning group sizes between 5 and 8 calves. The majority (86%) of pre-weaned calves on 221 dairies are raised in individual pens.
Number of Calves in First Group Pen after Weaning

![Bar Chart](Figure 3.6)

Preweaned Calf Pen Size on 221 Dairy Farms

![Pie Chart](Figure 3.7)
**Question 3:**

What proportion of first calf (lactation 1) heifers are given calving assistance, i.e. intervention of any variety whether it is manual or assisted pulling? What calving assistance devices are found on the dairy, e.g. ropes, chains, block and tackle?

**Response (Figures 3.8, 3.9):**

From 202 farms, the majority report calving assistance is given to 10-20% of the first calf heifers. 12% of the dairies assist 30% or more of first calf heifers. The calving assistance devices present on 50% of 229 dairies are chains and another 48% have either ropes or calf jacks.
Question 4:

What is the routine navel care provided to the newborn calves, e.g. dipping, spray or nothing? If there is routine care, what product is used? What percentage of calves gets navel infections? What percentage of calves gets hernias?

Response (Figures 3.10, 3.11, 3.12, 3.13):

The majority (77%) of the 124 dairies surveyed provide routine navel care to newborn calves in the form of a navel dip or spray. By far, the most common navel care treatment is iodine (95%). As reported by the dairy, neither navel infections nor hernias occur in more than 5% of the calves.
**Products used for Naval Care**

(85 Farms)

<table>
<thead>
<tr>
<th>Product</th>
<th>Farms</th>
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</thead>
<tbody>
<tr>
<td>Iodine</td>
<td>90</td>
</tr>
<tr>
<td>Chloro-hex</td>
<td>10</td>
</tr>
<tr>
<td>Naval Guard</td>
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</table>

Figure 3.11

**Reported Calf Naval Infection Rate on 62 Dairy Farms**

<table>
<thead>
<tr>
<th>Category</th>
<th>Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1% or less</td>
<td>30</td>
</tr>
<tr>
<td>2-5%</td>
<td>15</td>
</tr>
<tr>
<td>&gt;5%</td>
<td>5</td>
</tr>
</tbody>
</table>

Figure 3.12
Question 5:

Does the preweaned calf diet change in the winter?

Response (Figure 3.14):

Despite the increased nutritional needs of calves living in an environment that drops below their thermoneutral zone (55°F), only 18% of farms change their calf feeding protocol in the winter.