Whole Herd Health Initiative

Kathy Finnerty
NYS Cattle Health Assurance Program
Why whole herd health?

A farm is a complex business:
- Cows
- Heifers
- Calves
- Feeding
- Health management
- Personnel management
- Manure
- Machinery
- Crops
- Soils
- Environmental constraints
- FINANCE
Federal Milk Order Class I Base Price, January 2005 To December 2009

1/ Sometimes referred to as the Class I mover, it equals the sum of the base skim milk price for Class I times 0.965 and the advanced butterfat pricing factor times 3.6.
Major cattle health costs

❖ Pre-weaned calf mortality
  ➢ Industry standard = <5%*
  ➢ NYSCHAP data past year
    ➢ Average 3.8%
    ➢ Range 0-40%

❖ Pre-weaned calf morbidity*
  ➢ Scours - <25% require intervention for more than 24 hours
  ➢ Respiratory - <10% treated with antibiotic

*Dairy Calf and Heifer Association – Gold Standards
Major cattle health costs

- Lameness
  - Average cost - $350 per case
  - Studies – prevalence 12 – 30%
  - Cornell ambulatory – 30%

- Mastitis – cost estimates $200/cow/year

- Early culling due to poor reproduction
  - Disease status
  - Management
NY’s experience

- Three Disease Eradication and Certification Program
  - Early to mid-90s
  - Test and cull program for:
    - Johne’s
    - BLV
    - Bluetongue
- Lost funding……
NYSCHAP

- Salmonellosis
- Expansion
- Beef Quality Assurance
- Foot Health
- Udder Health/Milk Quality
- Cattle Welfare
- Johne's Disease
- Bovine Viral Diarrhea
- Bovine Leukosis Virus
First and Foremost: VCPR
Herd health planning process

Team approach
- Owner/herd manager
- Herd veterinarian
- Key personnel – herds person calf manager, parlor manager, etc.
- Consultants

Structured approach
- Everyone is busy!

Result – everyone in agreement
Issues Addressed

- Goals
- ID
- Treatment records
- Herd health records
- Incoming animals
- Milk production, quality, mastitis
- Vaccination program
- Employee management
- Review testing
- Calving pen management
- Newborn calf care
- Calf health
- Weaned heifer health
- Transition cows
- Repro
- Lameness
- Culling
- Infectious disease
- Johne’s disease
### CURRENT HERD HEALTH STATUS AND CONCERNS

**Codes for Incidence and Level of Concern Within the Last Year**

- U = Unknown significance or concern
- 0 = None seen within the last year
- 1 = Low incidence, not a current problem
- 2 = Moderate incidence, may need attention
- 3 = Significant incidence, unsatisfactory, needs attention

#### Milk Quality / Udder Health

<table>
<thead>
<tr>
<th>Metric</th>
<th>Code</th>
<th>U</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCS Today</td>
<td>U</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Bacteria Ct / SPC</td>
<td>U</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mastitis Cases / mo (% milk herd)</td>
<td>U</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you culture</td>
<td>U</td>
<td></td>
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<td></td>
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<tr>
<td>□ bulk tank?</td>
<td>U</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>□ ind. cases?</td>
<td>U</td>
<td></td>
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<td></td>
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<tr>
<td>□ fresh?</td>
<td>U</td>
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</tr>
<tr>
<td>□ other?</td>
<td>U</td>
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</tbody>
</table>

#### Reproductive Program

<table>
<thead>
<tr>
<th>Metric</th>
<th>Code</th>
<th>U</th>
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</thead>
<tbody>
<tr>
<td>Heat Detection Rate %</td>
<td>U</td>
<td></td>
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<tr>
<td>Conception Rate %</td>
<td>U</td>
<td></td>
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<td></td>
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<tr>
<td>Pregnancy Rate %</td>
<td>U</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avg. calving interval</td>
<td>U</td>
<td></td>
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</tr>
<tr>
<td>Herd Avg. DIM</td>
<td>U</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abortion / Yr. (% herd)</td>
<td>U</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Embryonic lost?</td>
<td>U</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>% AI</td>
<td>U</td>
<td>C</td>
<td>%</td>
<td>H</td>
<td>3</td>
</tr>
<tr>
<td>% Natural Service</td>
<td>U</td>
<td>C</td>
<td>%</td>
<td>H</td>
<td>%</td>
</tr>
<tr>
<td>Age at 1st freshening</td>
<td>U</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

#### Culling (12 months)

<table>
<thead>
<tr>
<th>Metric</th>
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<th>1</th>
<th>2</th>
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</tr>
</thead>
<tbody>
<tr>
<td># Animals Culled</td>
<td>U</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cull Rate</td>
<td>U</td>
<td></td>
<td></td>
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</table>

#### Periparturien/Metabolic Disorders - Fresh Cows (< 60 DIM) within last 12 months

<table>
<thead>
<tr>
<th>Metric</th>
<th>Code</th>
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<th>1</th>
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</thead>
<tbody>
<tr>
<td>Cull rate within 1st 60 DIM</td>
<td>U</td>
<td>1</td>
<td>2</td>
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<td></td>
</tr>
<tr>
<td>Milk Fever</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Retained placenta</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Ketosis</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Mastitis</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Metritis</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>DA's</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Fatty Liver</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Acidosis</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Stillborn/distocia</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other:</td>
<td>U</td>
<td>0</td>
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</tbody>
</table>

#### Calf Health (Pre-weaned)

<table>
<thead>
<tr>
<th>Metric</th>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>Pre-wean mortality</td>
<td>U</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-wean morbidity</td>
<td>U</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calf Growth</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Sepsis</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other:</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
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</table>

#### Heifer Health (Post-weaned)

<table>
<thead>
<tr>
<th>Metric</th>
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</thead>
<tbody>
<tr>
<td>Heifer growth</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>Breeding program</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other:</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
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</tbody>
</table>

#### Perceived Disease Significance of the Herd

<table>
<thead>
<tr>
<th>Metric</th>
<th>Code</th>
<th>U</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Johne's</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Salmonella</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Neospora</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>BVD</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Respiratory</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>BLV</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Clostridial</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Leptospirosis</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Coccidioides</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other:</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
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</tbody>
</table>

#### Laimeness

<table>
<thead>
<tr>
<th>Metric</th>
<th>Code</th>
<th>U</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Dermatitis</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Laminitis</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Abscesses</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Footrot</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Hock abrasion and injuries:</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other:</td>
<td>U</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Foot Trimming: Tenseness per Year

<table>
<thead>
<tr>
<th>Metric</th>
<th>Code</th>
<th>U</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Cows with obvious lameness</td>
<td>U</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

#### Summarize your main health concerns & priorities
The Herd Health Plan

- Determine overall goals for coming year
- Review issues of concern
- Prioritize BMPs to be implement – don’t bite off more than you can chew!!
- Document BMPs to be implemented
  - Assign personnel
  - Determine frequency or end date
- Review quarterly
- Update annually
## NYSCHAP Herd Plan

**Farm:**

**Date:** 9/17/07

<table>
<thead>
<tr>
<th>Intervention Tactic</th>
<th>Person Responsible</th>
<th>Frequency, duration or completion goal</th>
<th>Quarterly assessment of progress (initial &amp; dated by veterinarian)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain a keen awareness of biosecurity. Be sure that all employees are trained in biosecurity measures and understand the NYSCHAP plan. Review plan with Dr. Kirkconnell at next herd health and make any necessary changes.</td>
<td></td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>Address SCC issues as detailed in the mastitis plan:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Evaluate and monitor records monthly with Dr. Kirkconnell</td>
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</tr>
<tr>
<td>• Focus on management decisions with chronic high SCC cows – make treatment decisions based on culture results</td>
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</tr>
<tr>
<td>• Monitor fresh cow mastitis and consider using Orbiseal</td>
<td></td>
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<tr>
<td>• Train milkers to identify clinical mastitis signs</td>
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<td></td>
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<tr>
<td>• Periodically invite Dr. Welcome to attend monthly meetings with Dr. Kirkconnell</td>
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<td></td>
</tr>
<tr>
<td>Continue working closely with heifer raiser:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Work closely with nutritionist to offer a ration that meets the growth rates for reproduction but does not overly fatten heifers</td>
<td></td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>• Work with Micah on stall surface and bedding for the heifers to minimize hock problems when entering the milking herd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Consider purchasing a pasteurizer for calf milk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quarterly with Dr. Kirkconnell:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Review the NYSCHAP herd plan</td>
<td></td>
<td>Quarterly</td>
<td></td>
</tr>
<tr>
<td>• Run IgGs on a few calves to check the refractometer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consider housing bull calves and cull cows where the trucker does not have to enter the main barn. Realistically, this may not happen until you have a different trucker. At that point, start with new biosecurity measures.</td>
<td></td>
<td>When realistic</td>
<td></td>
</tr>
</tbody>
</table>
# NYSCHAP Annual Evaluation

**Premise Name:**

**Group Name/Desc:**

**Date:** 9 / 20 / 07

<table>
<thead>
<tr>
<th>Intervention Tactic</th>
<th>Comments</th>
<th>Acceptable Progress?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain a keen awareness of biosecurity in the face of an expanding dairy operation. Be sure that all employees are trained in biosecurity measures and understand the NYSCHAP plan. Review plan with Dr. Kirkconnell at next herd health and make any necessary changes.</td>
<td>Done.</td>
<td>Yes</td>
</tr>
<tr>
<td>As the new facility comes into use minimize the stress on the herd as much as possible. Make training and monitoring of employees a priority. Communication will be critical during the transition period.</td>
<td>Facility is in use.</td>
<td>Yes</td>
</tr>
<tr>
<td>Monitor the amount of lameness in the herd on a continual basis as an indication of any facility challenges in the new barn.</td>
<td>Lameness has not been a problem.</td>
<td>Yes</td>
</tr>
<tr>
<td>Address heifer challenges:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Work closely with nutritionist to offer a ration that meets the growth rates for reproduction but does not overly fatten heifers</td>
<td>Heifers are in good condition. Ventilation in heifer barn still an issue.</td>
<td>Yes</td>
</tr>
<tr>
<td>o Work with Micah on stall surface and bedding for the heifers to minimize hock problems when entering the milking herd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Concerns were raised regarding respiratory problems with heifers. Work closely with Micah to maintain appropriate ventilation in the heifer facility, particularly in the cold weather</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o As outlined in the mastitis plan, focus on SCC and mastitis in first lactation heifers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meet with Dr. Kirkconnell on a quarterly basis</td>
<td>Done</td>
<td>Yes</td>
</tr>
<tr>
<td>o Review the NYSCHAP herd plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Run IgGs on a few calves to check the refractometer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Review the vaccination program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continue to keep maternity pack as clean as possible; you should be able to kneel in the pack without getting wet or dirty. As the new facility comes into use overcrowding in the maternity</td>
<td>Done</td>
<td></td>
</tr>
</tbody>
</table>
got questions?