Wisconsin Dairy & Beef Wellbeing Conference
Agenda – March 8, 2013
Liberty Hall, Kimberly

8:30 am   Registration
9:00 am  Introductions & Sponsor Recognition
          Jen Walker, Dean Foods
10:00 am  “Animal Welfare: Science & Legislation”
          Dr. Amy Stanton, UW-Madison
10:45 am  Break & Visit Display Area
11:00 am  “Making the Link Between Cull Cows & Carcass Quality”
          Dr. Kurt Vogel, UW-River Falls / Vogel Livestock Solutions
11:45 am  Lunch
12:30 pm  “Managing Down Cows”
          Dr. Bob Leder, DVM, WI Vet Medical Association
1:15 pm   Breakout – Session 1  (Choose One)
          “Euthanasia Protocols”
          Dr. Kurt Vogel, UW-River Falls
          “Bovine Emergency Response Rescue Planning/Training”
          Dr. Sandy Stuttgen, DVM, UWEX
          Dr. Howard Ketover, DVM, Dane County Emergency Response
          “Lameness Prevention: A Cattle Husbandry Undertaking”
          Karl Burgi, Dairyland Hoofcare Institute
2:00 pm   Break & Visit Display Area
2:15 pm   Breakout - Session 2  (Choose One)
          “Euthanasia Protocols”
          Dr. Kurt Vogel, UW- River Falls
          “Bovine Emergency Response Rescue Planning/Training”
          Dr. Sandy Stuttagen, DVM, UWEX
          Dr. Howard Ketover, DVM, Dane County Emergency Response
          “Lameness Prevention: A Cattle Husbandry Undertaking”
          Karl Burgi, Dairyland Hoofcare Institute
3:00 pm   Panel Discussion
3:30 pm   Wrap-Up & Questions
Why Animal Welfare & Why Now?

Jennifer Walker DVM, PhD, Dipl ACVP
Director, Dairy Stewardship
jennifer_walker@deanfoods.com

Today's Customer – 2 types

Purpose vs. Prevention

HELLO
my name is
Brand Protection

Copyright Jennifer Walker 2012
Ooops! I Did it again...

Animal Welfare & Corporate Responsibility

Everything happens through people
“The rule to be observed in this stable at all times, toward the cattle, young and old, is that of patience and kindness. A man’s usefulness in a herd ceases at once when he loses his temper and bestows rough usage. Men must be patient. Cattle are not reasoning beings. Remember that this is the Home of Mothers.

Treat each cow as a Mother should be treated.

The giving of milk is a function of Motherhood; rough treatment lessens the flow. That injures me as well as the cow.

Always keep these ideas in mind in dealing with my cattle.”

— W.D. Hoard

It’s more than simply preventing cruelty...

- For as long as animals have been domesticated a social consensus included a (limited) ethic for the treatment of animals
- There was an implied “social contract” between farmers and the animals we benefit from…the essence of stewardship
- Why are we now being scrutinized???

Source: Bernard Rollin: Farm Animal Welfare

It’s more than simply preventing cruelty…

- For as long as animals have been domesticated a social consensus included a (limited) ethic for the treatment of animals
- There was an implied “social contract” between farmers and the animals we benefit from…the essence of stewardship
- Why are we now being scrutinized???
History Lesson

- Decade prior to WWII (1929-1940) the great depression
  - 25% of income spent on food
  - 24% of population worked with agriculture
  - Vaccines used to treat/prevent influenza
  - Penicillin discovered in 1929...lab use only, not medical

Source: USDA/Economic Research Service

Fuel for Change...

- The development of relative food & financial security

- As affluence developed so did social concern for the previously ignored and exploited...people of color, Native Americans, women, handi-capable...the planet, endangered species

The Moral Circle

Cows, Pigs, Chickens
Horses
Dogs & Cats
All People
MY Dog & MY Cat!
Like Me
Family
MY Dog & MY Cat!
Me

M. Midgley, 1983

The Moral Circle

The Planet
Dogs & Cats, COWS, ...
MY Dog & MY Cat
All People
Like Me
Family
Me

M. Midgley, 1983

The Circle of Influence
Today

• 10% of $$ is spent on food
• <1% claim farming as an occupation

Consumers are not sure what we do today is “farming”

58% of homeless pet owners have gone without food in order to feed their animals

And We Protect Them...

Abused women will remain in abusive situations because of concern for their pet's safety
Today's Consumer

- 93% believe that how a farm animal lives matters...violating the nature of an animal strikes a chord with the public.
- Society is beginning to demand the respect for an animal's nature and that it be encoded into law...our social contract became a social license.

Slide adapted from Charles Arnot, Center for Food Integrity. www.foodintegrity.org

The Need

Consumer Trust

FAIRNESS  COMPASSION

Doing the RIGHT THING

Slide adapted from Charles Arnot, Center for Food Integrity. www.foodintegrity.org
The RISK

Social Control

↑↑↑$$$$

TRUST

Social License

Ignorance is Bliss

Wal-Mart Toughens Fire Safety Rules for Suppliers After Bangladesh Blaze

By STEVEN GREENHOUSE

Published: January 22, 2013

The Problem
Ethics

- Ethical “knowing” is different from other knowing
  - Not science based...but may be informed by science
  - Not like math- not meant to describe how the world is, rather how it ought to be
  - Not solely based on feelings...we begin with some basic ethical assumptions

Good Production ≠ Good Welfare

- “if we don’t take good care of our cows, they don’t produce (economically)”
  - Not necessarily true
  - Implies that we are in it only for the money
  - Cows can produce in spite of poor husbandry

- As milk production has increased, so has lameness and production related diseases

Maximizing That R.O.I. ....
How do we measure Welfare?

- Extent of Failure to cope ... amount of stress
- Abnormal Behavior
  - Stereo-typies = invariate behavior w/obvious function
  - Fear
  - Pain (evidence of), response to relief of
  - Aggression – rooted in frustration
- Motivation –
  - Preference – Cows prefer clean & Dry beds
  - Deprivation
“So our animals can’t turn around for the 2½ years that they are in the stalls producing piglets,” “I don’t know who asked the sow if she wanted to turn around — The only real measure of their well-being we have is the number of piglets per birth, and that’s at an all-time high.”

What does an animal welfare expert look like?

2008 Response to Chino –
AABP officials characterized images in the video as "deplorable." AVMA Executive Vice President Dr. Ron DeHaven responded with an editorial letter to the Washington Post calling for "the strictest penalties if the allegations are confirmed"
That was then...

2011 - The AABP **condemns** willful acts of animal abuse such as those videotaped on the calf ranch in Hart, Texas.

The veterinary profession strongly promotes humane care and handling practices for all livestock, and the abuse seen in this situation **cannot** be tolerated.

2012 - Ca...again...AABP Condemns Willful Animal Abuse
The American Association of Bovine Practitioners **unequivocally condemns** willful acts of animal abuse such as those videotaped at the Central Valley Meat Co. in California:

An “Average Day”
Do we understand the audience???

• Transparency – fundamental

• New Expectations:
  1. Authentic
  2. Honest

“Driver” Concerns

o Programs are little more than “window dressing”; will not advance welfare

o Must haves: LEADERSHIP... “cow centered”
  • Documented continuous improvement
    o Action Plans
    o Follow up
  • Allow on site visits – farm of THEIR choosing
  • Specific actions for “prohibited practices”

Animal Welfare Programs

• Assessments/Audits – in general focus on the Process rather than the outcome
• Become competitive, driven by philosophy
• Conflicting Recommendations
• Thus far, programs have not proven to be an effective means to improve overall welfare
• Without science based objective outcomes and required action the welfare of the animals will not improve
Audits may legislate against the bottom end of the industry by setting **MINIMUM STANDARDS**

“...to demonstrate and verify that producers are committed to providing the **HIGHEST standards of animal care...”**

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**What does Leadership Look Like...**

- If you say you are doing it, be ready to prove it

---

**Prove it!...**

“Consumers can be assured that U.S Milk Producers are committed to the **highest level of animal care** and quality assurance”...“evaluation should determine **that** animals are cared for properly”

“**Assure** consumers that animal care **meets** guidelines”

Guidelines – Lameness <10% (others 5%, 15%)

- **NAHMS 2007 – 23.9% cows lame, 20% farms reported 25-50% incidence of lameness**
What does Leadership Look Like...

☑ If you say you are doing it be ready to prove it
☑ Don’t make promises you can’t keep

FTC Complaint Filed Over Pork Council’s False and Misleading Animal Welfare Claims

HSUS filed a legal complaint with the FTC, asserting that the NPPC is engaging in deceptive advertising related to animal well-being in violation of the Federal Trade Commission Act.

... alleges that the pork industry’s public descriptions of its “We Care Initiative” and deceptively-titled “Pork Quality Assurance Plus” program are riddled with numerous false claims regarding the welfare of pigs, ... false claim that its PQA Plus program helps to “ensure that all animals in the pork industry continue to receive humane care and handling.”

What does Leadership Look Like...

☑ If you say you are doing it be ready to prove it
☑ Don’t make promises you can’t keep
☑ Learn from our mistakes and the success/failures of others
What does Leadership Look Like...

- If you say you are doing it be ready to prove it
- Don’t make promises you can’t keep
- Learn from our mistakes and the success/failures of others
- Don’t tell me what you think I want to hear

“Messaging”....

If asked about dehorning cattle...
- Dehorning is a practice that has been used for decades to help reduce the risk of injury to cows and animal handlers.
  - YES
- Cow horns can become dangerous weapons in areas where cows are moving in groups, such as to the milking parlor, putting them and employees at risk.
  - YES
- Dehorned cows are less aggressive and less dangerous to transport.
  - YES

Did I say that???

Dehorning typically is conducted in the first couple of weeks of a calf being born.

FALSE

The average age of disbudding is 7.6 weeks, not a “couple.” This makes it significantly more painful.
For a cow with developed horns, dairy farmers and veterinarians follow best industry practices that work to ensure the comfort and safety of an animal through sedation or anesthesia.

**FALSE**

Currently less than 20% of calves are provided pain relief for this procedure.

Did I say that???

This “disbudding” of non-developed horn buds is a fairly simple procedure that doesn’t require anesthesia.

**FALSE**

The National Dairy FARM program provides guidelines for safe and humane ways for cattle to be dehorned

Sort of....

What does Leadership Look Like...

- If you say you are doing it be ready to prove it
- Don’t make promises you can’t keep
- Learn from our mistakes and the success/failures of others
- Don’t tell me what you think I want to hear
- Make it simple, but meaningful
- Admit when you are wrong, stop making excuses
Tail Docking
Science Based Guidelines ... “Guidelines must be real and they must be enforced”

- American Veterinary Medical Association
- American Association of Bovine Practitioners
- National Mastitis Council
- Canadian Code of Practice

“The AVMA opposes routine tail docking of cattle. Current scientific literature indicates that routine tail docking provides no benefit to the animal, and that tail docking can lead to distress during fly seasons.”

Concerns ?

1) Designed to make producers happy, or consumers happy... window dressing
2) Education – creating the mind set for adoption over volunteerism
3) Insufficient training required
4) Zero Accountability
5) Reliable Outcome measures of the right animals
6) Ignore life-stage specific animal welfare issues
7) Must maintain farm diversity

Animal Welfare Programs

- Educate... attitude adjustment
- Set the bar high! Require some compliance measures & Measure other successes via benchmarking
- Verify when animals are cared for properly, and that producers strive to meet contemporary standards...document continuous improvement
- Identify areas that need attention or improvement and follow up & document that plans are developed & implemented
Treating farm animals well does not make them our pets...

It makes us Good Stewards & Good Human Beings
What is animal welfare?

“...Means how an animal is coping with the conditions in which it lives.”

World Organization of Animal Health (OIE)
Chapter 7.1 of the Terrestrial Animal Health Code
The Five Freedoms

1. Freedom from Hunger and Thirst
2. Freedom from Discomfort
3. Freedom from Pain, Injury or Disease
4. Freedom to Express Normal Behavior
5. Freedom from Fear and Distress

Brambell Report, 1965 (UK)

Good Animal Welfare - Requires

• Requires disease prevention
• Appropriate veterinary treatment
• Shelter
• Appropriate management and nutrition
• Humane handling
• Humane slaughter or killing

OIE Chapter 7.1

Animal Welfare
How can we study this?

Animal Behavior
Examples: Vocalizations, play behavior, escape behavior, abnormal lying
What are there preferences?
Do they perform abnormal behavior?
Is it painful?
How hard will they work for resources?

Examples of behavior findings
Cattle will choose to lay down
Dry stall > wet stall
Cement > cold, wet mud
How hard will calves work for social access?
Impact of familiar animal on transportation?

Studying Welfare

Physiological Effects
- Rates of disease
- Injuries
- Body condition scores
- Cortisol response
- Ability to maintain body temperature (thermo neutral zone)
Role of Science

Science can say:

- Housing intensively is associated with more stereotypic behavior
- Housing extensively is associated with more parasites
- Hens are highly motivated to build nests
- Dehorning cattle is painful
- Dehorning cattle with analgesics is less painful

Role of science

Science can’t make value statements:

- More than 5% of animals behaving stereotypically is acceptable or better than 5% of animals with parasitic infection
- The pain of dehorning is acceptable or unacceptable
- It is acceptable that 40% of cows are lame

Animal Laws in Wisconsin Background

- Stated generally so they apply to multiple species and situations
- Minimum standards for animal care
- Wisconsin Statute on Animal Health (95) and Crimes Against Animals (951)
  - Enacted 1973
  - Last updated 2011
### Enforcement – Humane Officer

- Humane Officer is appointed by City, Town or County
- Must be certified by DATCP
  - Test + course
- Enforcement of chapters 174 (dogs) and 951 (crimes against animals)
  - Also enforced by law enforcement officials
  - No training required for law enforcement

### LAW 951

**951.02 Mistreating animals.** No person may treat any animal, whether belonging to the person or another, in a cruel manner.

This section does not prohibit normal and accepted veterinary practices.

### Law 951.3

**Providing proper food and drink to confined animals.** No person owning or responsible for confining or impounding any animal may fail to supply the animal with a sufficient supply of food and water as prescribed in this section.

1. **Food.** The food shall be sufficient to maintain all animals in good health.
2. **Water.** If potable water is not accessible to the animals at all times, it shall be provided daily and in sufficient quantity for the health of the animal.
Law 951.14 Shelter

951.14 Prohibiting proper shelter. No person owning or responsible for confining or impounding any animal may fail to provide the animal with proper shelter as prescribed in this section. In the case of farm animals, nothing in this section shall be construed as imposing shelter requirements or standards more stringent than normally accepted husbandry practices in the particular county where the animal or shelter is located.

(1) Indoor standards. Minimum indoor standards of shelter shall include:

(a) Ambient temperatures. The ambient temperature shall be compatible with the health of the animal.

(b) Ventilation. Indoor housing facilities shall be adequately ventilated by natural or mechanical means to provide for the health of the animals at all times.

Outdoor standards. Minimum outdoor standards of shelter shall include:

Shelter from sunlight. When sunlight is likely to cause heat exhaustion of an animal tied or caged outside, sufficient shade by natural or artificial means shall be provided to protect the animal from direct sunlight. As used in this paragraph, "caged" does not include farm fencing used to confine farm animals.

Shelter from inclement weather. "Animals generally." Natural or artificial shelter appropriate to the local climatic conditions for the species concerned shall be provided as necessary for the health of the animal.
Law 951.14 Shelter

Space standards. Minimum space requirements for both indoor and outdoor enclosures shall include:
(a) **Structural strength.** The housing facilities shall be structurally sound and maintained in good repair to protect the animals from injury and to contain the animals.
(b) **Space requirements.** Enclosures shall be constructed and maintained so as to provide sufficient space to allow each animal adequate freedom of movement. Inadequate space may be indicated by evidence of debility, stress or abnormal behavior patterns.

Law 951.14

(4) Sanitation standards. Minimum standards of sanitation for both indoor and outdoor enclosures shall include periodic cleaning to remove excreta and other waste materials, dirt and trash so as to minimize health hazards.

Fines

1st offense: Class C Forfeitures: Not to exceed $500
2nd offense within 3 years: Class A Forfeiture: Not to exceed $10,000
   ➢ Intentional mutilation, disfigurement, or death: Class I felony = $10,000 and/or 3 years and 6 months
Humane Slaughter

"Humane method" means:
Any method of slaughtering livestock which normally causes animals to be rendered **insensible** to pain by a single blow or shot of a mechanical instrument or by electrical, chemical or other means that is **rapid and effective**, before being shackled, hoisted, thrown, cast, or cut
Statute -95.80

Additional Criteria for Humane Slaughter or Euthanasia

Animal is rendered insensible quickly, does not return to consciousness, and it is relatively painless

Ruminants:
- Penetrating Captive Bolt
- Gun Shot

AVMA: Humane slaughter recommendations

New Laws within the USA

Aimed at Gestation crates:
- Pregnant sows must be able to freely turn around without touching sides- First addressed in Florida in 2002 (effective 2010)
- Fine $5000 and or imprisonment

Other States with confinement laws:
- Arizona, California, Michigan, Oregon, Maine

Animals involved: Veal, Chickens, Swine
Additional Laws

Routine Tail Docking
- Bovine: Illinois, New York, Rhode Island, Ohio
- Horses: New York, Michigan,
- De-beaking - recommended restrictions but not banned
- Force Feeding Birds (foie gras) Hawaii

Ohio Livestock Care Standards:

Other Approaches – in the US

Animal agriculture organizations setting standards: FARM program, Beef Quality Assurance, United Egg Producers

Retail restrictions – animal welfare audits
- McDonalds, Wal-Mart

Processor restrictions – Milk processors

What is the next step?

Probably more legislation
- ‘Surgical procedures’, confinement related

Key approaches for success:
- Find the middle ground
- Communication between consumer and agriculture groups
- Respect and listen
Dairy Welfare Issues

- Lameness
- Calf Mortality
- Milk production versus health selection
- Downed Animals
- Confinement (Tie stall & lack of pasture)
- Surgical Procedures
  - Tail Docking
  - Dehorning
- Veterinary Client Relationships

What is the next step?

- More research into housing & management associated with good animal welfare.
- Reduce lameness
- Better management of compromised animals
- Lots of outside the box thinking
- Communication with the public

Questions?
Although it is easy to overlook these animals, they have the potential to:

- Help us identify common health disorders.
- Provide a source of lean animal protein.
- Present quality and welfare challenges that damage consumer trust in the dairy and beef industries.

‘Quality’ in culled cattle is different than ‘quality’ in fed cattle.
They are culled for a reason

Producer - reported reasons for dairy cow culling (USDA, 2007)

This may present quality challenges.

- National Market Cow and Bull Beef Quality Audits:

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Can we set minimum standards?

- What would they look like?
- Could a consensus be developed between dairy farmers and packers?
- Let's give it a try.
Example #4:

Example #5:

Example #6:
Where is the minimum standard?

- In order to market cull cattle, they **MUST**:
  1. Be able to rise and walk under their own power.
  2. Survive the marketing and transport process and continue to rise and walk under their own power at the packing plant.

- This will not guarantee they will pass inspection.
  - But it will allow them to be presented.

What if the standards aren't met?

- There are two choices:
  1. Treatment and recovery
  2. Euthanasia

- Direct shipping should be considered if the animal faces short-term mortality but is otherwise fit for transport.

Determining value:

- Carcass value
  - Based on the expected lean meat yield of the carcass.

- Basic grades (vary somewhat between plants)
  - Canner/Cutter:
    - Lean Cow: BCS typically 2.25 or less
    - Carcass Yield: < 45% - 47%
  - Boning Utility
    - BCS range between 2.5 and 3.75
    - Carcass Yield: 47 – 51%
  - Breaker Utility
    - BCS > 3.75
    - Value is reduced due to fat content in carcass.
    - Carcass Yield typically > 51%.
Determining value:

- **Live value**
  - The buyer estimates the carcass grade and dressing percentage.
  - There is a lot of art in this process.
  - After this, a simple calculation is made:
    - Carcass Price × Dressing Percent = Est. Live Price

What does the ideal animal look like?

- It depends on what the buyer is looking for!

Take home messages:

- We need to focus attention on involuntary culls.
- If an animal is unlikely to survive the marketing and transport process, responsible action must be taken.
  - Direct ship or euthanize.
- Take the message home – **and share it!**
Questions and Discussion

Kurt D. Vogel, Ph.D
University of Wisconsin – River Falls
kurt.vogel@uwr.edu

UW River Falls
Acceptable methods of euthanasia for cattle and calves.

- Gunshot
- Captive bolt
- Barbiturate overdose
- Electrocution

Euthanasia

“The intentional causing of a painless and easy death to a patient suffering from an incurable or painful disease.”

- Webster’s 2nd University Dictionary
Unacceptable methods

- Manually applied blunt force trauma to the head
- Injection of chemical agents into conscious animals
- Air embolism
- Electrocution with 120V electricity

Barbiturate overdose

- 60 – 80 mg/kg sodium pentobarbital
- Intravenous administration
- Causes rapid unconsciousness and anesthesia followed by death
- Must be administered by a veterinarian with a Drug Enforcement Agency (DEA) license
- Tissue residues may present disposal problems

Captive Bolt

- Uses a pneumatic or powder fired retractable metal rod
- Very portable
- Highly effective
- May be followed by a secondary step (ex. KCl infusion, pithing, or exsanguination)
- Approved for all species by AVMA
Firearm
- May be pistol, rifle, or shotgun.
- Any caliber that produces immediate insensibility
  - .22 caliber is not sufficient without a secondary step
- .22 caliber gunshot should be followed by a secondary step (KCl, pithing, or exsanguination)
- A solid bullet MUST be used!
- Highly effective, approved for all species.

Captive bolt and Firearm
- Primary target is the brain stem.
  - This is the center for basic respiratory and heart function.

Device Placement
- Species-specific!
  - Sheep and goats
    - Top of head
  - Cattle
    - At the intersection of two imaginary lines drawn from the top of the eye to the opposite horn or poll.
  - Swine
    - Parallel to spinal column
    - Approximately 1 inch above the eyes
After the procedure:

- Check for the following signs:
  - Corneal reflex
  - Rhythmic breathing
  - Heartbeat
- If any of these signs are observed, a secondary step to induce rapid and painless insensibility immediately!
- TAKE A SECOND SHOT.
- After loss of respiration and heart beat for five (5) minutes, the animal is considered dead.

Animal welfare is based on doing the right thing.

Questions and Discussion

Kurt D. Vogel, Ph.D
University of Wisconsin – River Falls
kurt.vogel@uwrf.edu
Guidelines for captive bolt euthanasia of cattle and calves.

1. An authorized personnel will make the decision to humanely euthanize the animal that is non-ambulatory.

2. Mark the animal’s head from horn or poll to the outside corner of opposite eye.

3. Load the captive bolt gun.

4. Place the muzzle of the captive bolt gun against the animal’s head at a 90° angle on the middle of the ‘X’.

5. Pull the trigger on the captive bolt gun.

6. Check the animal’s eye for a corneal reflex.

7. Wait five (5) minutes and recheck the eye for a corneal reflex. If the reflex is present, repeat steps 3-7.

8. If no corneal reflex is present, the euthanasia was successful. Record animal on Euthanasia Log Form.

9. Dispose of carcass as premise protocol directs.

October 2012 – Jessica Schramm and Kurt D. Vogel, Ph.D. University of Wisconsin – River Falls
Guía de capacitación para la eutanasia de reses o becerros

1. El personal autorizado, hará la decisión de matar humanamente al animal que ya no puede caminar.

2. Marque la cabeza del animal desde el cuerno (o lo que queda del cuerno) hasta la esquina exterior del ojo opuesto.

3. Cargue el arma especial de eutanasia.

4. Coloque la boca del arma especial de eutanasia contra la cabeza del animal en un ángulo de 90 grados en el centro de la ‘X’.

5. Dispare.

6. Toque el ojo del animal para ver si pestañea.

7. Espere cinco (5) minutos y vuelva a tocar el ojo del animal si el animal pestañea otra vez, repita los pasos tres al siete (3-7).

8. Si no hay movimiento del ojo, la eutanasia se ha realizado con éxito. Registre al animal en el formulario de eutanasia.

9. Deshágase del cadáver siguiendo el reglamento del rancho.
# Euthanasia Log Form

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Managing Down Cows
Robert Leder, DVM
Chair, Dairy Welfare Committee
Wisconsin Veterinary Medical Association

WVMA Guiding Principle
The WVMA recognizes disabled cattle prognosis and treatment plan development as a vital aspect of the veterinarian-client-patient relationship (VCPR) on every dairy farm. Disabled cattle should be examined by a veterinarian in a timely manner to determine a prognosis and treatment plan for the individual animal. Disabled cattle need to be handled humanely in all situations. When moving down cows they should be placed on a suitable surface that prevents direct and indirect injury to the animal while being moved.

Down cows are a reality of dairy production: Have a plan!

Protocol and SOP Considerations (Who, When, What and How)
- Be prepared both mentally and logistically
  - Keep a positive attitude
  - Keep negative emotions in check
  - Look forward, fix the problem at hand, don’t get into blame game

The Who
- Who is responsible; what’s the chain of command?
- Every farm has unique chain of responsibility
- Establish who is responsible for decisions regarding down cows
- Utilize your veterinarian to establish on-farm protocols and SOPs, and assist in a timely manner with individual cases as needed
- Train and re-train

The When
- When do you implement the plan? Down cows need urgent attention.

2004 Dairy Today, Dr. Vic Cox, University of Minnesota:
- “My research shows that any time a cow is lying on concrete for more than six hours, pressure damage will occur to the hind leg that she’s lying on.”

- “So producers have to treat the downer cow as an emergency, not something they get to after the other chores are done, you have to treat it aggressively, get them moved off of hard concrete and onto clean straw or preferably sand.”

Jeff Henschel, Waupaca County dairyman:
- “Concrete and steel are a cow’s two worst enemies“

The What
- Situation assessment
  - Where is the cow down
    - In maternity pen
    - In a free-stall
- In the holding area
- In an alley
- In a stanchion and/or gutter
- On pasture

  - What is the history
    - Age
    - Just fresh
    - Lameness
    - Recent heat

- Is the cow cast?
  - Lateral recumbent cow
  - An uneven surface that is slightly higher at the point of the downside shoulder
  - Cow is “over-center”- her core muscles cannot pull her over the hump to her sternum
  - Cows can thrash and beat their head on the ground/floor
  - Cows if left in this position for extended time they will bloat
  - Tuck down rear leg forward and roll the cow onto her sternum

- Initial Treatment & Tincture of Time
  - If milk fever, give appropriate treatment
  - Examine for other disease conditions, with special attention to mastitis, administer appropriate treatment per farm protocol
  - Pain medication if necessary
  - Position cow to succeed
  - Give cow time to rest, build strength and gain confidence

The How
Movement/Transporting the Cow
- Sometimes the cow has to be moved to a better location to get up

- The two F’s of down cows
  - Freedom
    - Cows need adequate lunge room in front of them to “rock” up and move forward
    - Give them the assurance that they are free, no obstructions in front of the cow
    - A cow’s perceived freedom may require taking the halter off, so there no sense of external control by the cow
  - Footing
    - Rear legs have to be able to dig in
    - Imagine you different way we arise from a picnic blanket in the summer to an ice rink in the winter
    - Add lime or sand to concrete surfaces
    - Put snow fence under the cow for rear leg footing

- From the WVMA Guiding Principle: “Disabled cattle need to be handled humanely in all situations. When moving down cows they should be placed on a suitable surface that prevents direct and indirect injury to the animal while being moved.”

- Do not pull cows by neck or legs directly. Damage to the cow’s skin, her largest immune organ, will only add insult to injury.
Suitable surfaces for moving cows

- Rubber mats
- Wide material handling belting
- Plywood or OSB board
- Stone boats
- Skid steer or tractor loader buckets

Bundling Cow for Movement

- Bundle cow to roll her unto suitable surface, see photo:

- Roll cow backward onto surface, or slide surface under cow while she is rolled back.
- Then move the supporting surface.
- Place the cow on clean, well bedded pack, sand or dry earth.

Establish a prognosis and treatment plan

- Cows needs to be off concrete in less than 6 hours
- If cow is not standing in 12 hours after being moved to suitable surface, she needs to be reevaluated for further treatment
  - Have veterinarian determine extent of injury if possible and if recovery is likely
  - Retreatment for underlying condition or new disease condition and the judicious use of pain killers when appropriate
- Hip lifters have limited use, many times creating more damage. Overuse is common.
- Consider floating the cow if those services are available
- If it is determined that the cow will not recover from the disease process or injury, the cow should be euthanized.
Disabled cattle

Guiding principle: The WVMA recognizes disabled cattle prognosis and treatment plan development as a vital aspect of the veterinarian client patient relationship (VCPR) on every dairy farm. Disabled cattle should be examined by a veterinarian in a timely manner to determine a prognosis and treatment plan for the individual animal. Disabled cattle need to be handled humanely in all situations. When moving down cows they should be placed on a suitable surface that prevents direct and indirect injury to the animal while being moved.

Ambulatory Cattle

If an otherwise healthy bovine animal has been recently injured, and the animal is ambulatory, it should be treated, shipped directly to a state or federally inspected slaughter plant, humanely slaughtered on the farm or euthanized. Injured ambulatory animals should not be co-mingled with other animals during transport. Care should be taken during loading, unloading, and handling of these animals to prevent further injury or stress.

Non-ambulatory Cattle

Non-ambulatory animals must not be dragged mechanically with direct attachment to body parts while alive to avoid direct damage to the animal. If at all possible the animal should be rolled or slid onto a suitable surface by means of reasonable manual force aided with simple devices (block and tackle pulleys or manual hand ratcheting wenchs) which will carry the animal while being moved. Once secured on a movable surface the animal can be moved without causing indirect injury from surface friction. Every effort should be made to prevent further injury.

If a bovine animal is down on a farm

If the animal is not in extreme distress the producer should contact a veterinarian in a timely manner to determine prognosis and treatment plan. The producer should move the cow humanely to a suitable location and provide food, water, shelter, and appropriate nursing care to keep the animal comfortable until the veterinarian arrives.

If the animal is in extreme distress and the condition is obviously irreversible, the animal should be euthanized immediately or humanely slaughtered on the farm.

If a bovine animal is down at a non-terminal market (e.g., sale yard or auction)

If the animal is not in extreme distress, but is disabled, the market management should contact a veterinarian to determine a prognosis and treatment plan. If and when it becomes apparent the animal will not recover, it should be euthanized.

If the animal is in extreme distress or the condition is obviously irreversible, the animal should be euthanized immediately.

Euthanasia of food animals

Guiding principle: Veterinarians are a valuable asset to help make timely euthanasia decisions. Considerations that make euthanasia the best available option are incurable conditions, the likelihood of treatment failure, potential for animal suffering and presence of drug residues. The decision to euthanize a food animal should be made as soon as the fore mentioned conditions are recognized, and implemented in a timely manner to minimize animal suffering.

The WVMA recognizes developing and implementing a euthanasia plan, when needed, as a vital aspect of the veterinarian client patient relationship (VCPR) on every dairy farm. Veterinarians have an obligation to help protect animal welfare which includes involvement in euthanasia decisions.

Most individuals and veterinarians who work with livestock will encounter situations where an animal is unlikely to respond favorably to treatment. The likelihood of treatment failure, potential for animal suffering and presence of drug residues are some considerations that can make euthanasia the best available option.

Develop a plan

Veterinarians should work with personnel at locations housing or handling animals to develop an action plan for animals in situations that require euthanasia. This action plan should include indications for euthanasia and criteria to consider in the decision making process.

An appropriate method of euthanasia should be selected based on animal welfare, human safety, practicality and skill of the individual performing the euthanasia.

When a euthanasia decision is made, implementation should be made in a timely manner. Leaving terminally ill animals in significant pain, waiting for the rendering service to arrive, is unacceptable. Proper implementation of the plan requires training of the individuals involved in the decision making and euthanasia method. Annual review of the euthanasia action plan is recommended.

An excellent resource for the development of a euthanasia plan and training of the individuals involved has been developed by the Animal Welfare Committee of the American Association of Bovine Practitioners and can be found at www.aabp.org/resources/euth.pdf. This pamphlet provides detailed descriptions of the decision making process and acceptable euthanasia methods.

Lameness in the dairy industry

Guiding principles:

1) It is the responsibility of the veterinary medical profession to be involved in monitoring lameness prevalence, prevention, diagnosis and treatment plans. The goal of this role is to limit the pain and suffering caused by lameness.

2) Regardless of the scale used, any animal with a moderate lameness or worse should receive timely treatment.

3) It is unacceptable to maintain animals with chronically severe lameness when the underlying cause is incurable, the prognosis for resolution of pathology is poor or pain abatement is impossible. Such animals should be salvaged as soon as possible once one of the fore mentioned situations exists.

The Wisconsin Veterinary Medical Association recognizes that dairy cow lameness is a significant cow health and welfare issue in our state’s dairy herd.

The WVMA recognizes lameness control, prevention and treatment as a vital aspect of the veterinarian client patient relationship (VCPR) on every dairy farm.

The goal of this effort is to reduce the incidence of lameness and improve the locomotive condition of the herd.
**WVMA Guiding Principles for Food Animal Welfare**

### On farm surgery by non-licensed personnel

**Guiding principle:** Surgery on food producing animals should be limited to licensed veterinarians.

It is in the best interest of the cow, the public and the producer to have licensed veterinarians perform surgery.

**It is illegal**
The law clearly states that surgery on an animal is limited to licensed veterinarians (VE 7.02(1) c).

**It is unethical**
Training non-licensed personnel to perform surgery is not ethical. Such training is not within the realm of a reasonable veterinarian/client/patient/relationship. Doing so goes against the Veterinarian’s Oath and the American Veterinary Medical Association’s Code of Ethics. It is unethical for a veterinarian to prioritize client’s economic concerns over animal care and welfare.

**Public expectation**
Veterinarians have been entrusted by the public to ensure that the animal products it consumes and uses are wholesome and are produced humanely. Society grants monopolies to health professionals through the licensing process because it recognizes the special value of maintaining a standard of care. Veterinarians have training in anatomy, pathology, pharmacology and surgery and have experience in observation, diagnosis and treatment of food animals; their involvement fulfills the public’s expectation.

**Animal welfare**
Surgery by a person without a veterinary license is not in the best interest of the cow. The lack of understanding and appreciation of sterile technique can jeopardize survival rates of the patients. Veterinarians have a better understanding of the affects that concurrent diseases have on surgery recovery, and tailor the treatment plans for cows with multiple problems. Non-licensed persons also have little or no training in pain management and pharmacology.

**It is not sound business**
On-farm treatment protocols that step from “on-farm” diagnosis to surgery without veterinary intervention may be performing unnecessary surgery. The diagnosis needs to be confirmed by a veterinarian and a specific treatment plan made. Each cow has unique needs. Surgery may not even be the best course of action. Proper medical and surgical management should be tailored by a licensed veterinarian to optimize the outcome.

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### Pain management

**Guiding principle:** The WVMA recognizes pain control, prevention and treatment as a vital aspect of the veterinarian client patient relationship (VCPR) on every dairy farm. Veterinarians are urged to educate their clients and themselves about recognizing acute and chronic pain signs and relieving it through management, optimally designed housing and medication.

The WVMA believes that animal pain and suffering are clinically important conditions that adversely affect animals.

Herd animals such as cows, sheep and pigs, are adept at masking their pain signs. Astute observation and research verify that these animals do feel pain. It is manifested in subtle postural changes, locomotion changes, lack of appetite, teeth grinding, various vocalizations, and certain avoidance behaviors.

Until such time that a pain scale is scientifically developed, all veterinarians are urged to educate their clients and themselves about recognizing acute and chronic pain signs, with emphasis on relieving it through management, optimally designed housing, and medication.

Whenever possible, the WVMA suggests the use of preoperative pain relievers, as this approach has proven beneficial in humans and companion animals.

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### Tail docking

**Guiding principle:** The Wisconsin Veterinary Medical Association opposes the routine tail docking of cattle. Current scientific literature indicates that routine tail docking provides no benefit to the animal.

The WVMA recognizes that tail docking is utilized on some Wisconsin dairy farms as a means to improve cow cleanliness and udder health. However, current scientific research evaluating the effectiveness of tail docking to achieve these goals has shown no correlation of tail docking with improvements in cow cleanliness or udder health.

The WVMA recognizes cow comfort, cleanliness and udder health as vital aspects of the veterinarian client patient relationship (VCPR) on dairy farms. Management practices such as stall design, cleaning schedule, stocking density, and bedding management are significant factors affecting cow cleanliness and udder health. Veterinarians should assist dairy farmers in reviewing existing management practices and identifying new practices if needed that will improve these areas of dairy cow well being.

When medically necessary, amputation of tails must be performed by a licensed veterinarian utilizing proper pain management.

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*adopted 2008*

*adopted 2010*
Bovine Emergency Response, Rescue Planning/Training

Presented by
Sandra Stuttgen, DVM, UW-Extension
Howard Ketover, DVM, Irongate Equine Clinic, WLAER
Liberty Hall Banquet & Conference Center, Kimberly, Wisconsin

ABSTRACT

Little Boy Blue, come blow your horn, the sheep's in the meadow, the cows in the corn....

Individuals who farm with livestock are familiar with animal emergencies. They know what to do when the cows break the fence and end up in the garden, or cut themselves on a broken fence post... round them up, and tend to their wounds. The vast majority of everyday emergencies are handled by the livestock producer, not by the local First Responders. When producers are able to respond to a single animal emergency without further injuring the animal or humans in the process, they have taken the first step in preparing for the bigger event. Large scale disasters could include barn fires, trailer accidents, floods, tornados and foreign animal disease. These large scale disasters often require partnerships with local First Responders and potentially state or federal resources to increase the possibility of a positive outcome.

The fence line between rural and urban WI continues to disappear. It is common to see silos and farmsteads meld into business parking lots and livestock trailers on our city streets. Every summer, county fairs, often located in the middle of town or near busy interstates, bring livestock into the city. Whenever livestock and people congregate, accidents will happen. It is not unheard of to see cattle on golf courses, trailers tipped over on the highway with loose cattle causing secondary accidents, and the frightened 4H steer project careening down a crowded midway while parents scramble to pull their toddlers to safety.

Bovine Emergency Response, Rescue Planning/Training presented at the Wisconsin Dairy & Beef Animal Well-Being Conference on March 8, 2013 at the Liberty Hall Banquet & Conference Center, Kimberly, Wisconsin was designed to spur thought and interest in this topic. Presenters Stuttgen and Ketover hoped to generate enthusiasm for attendees to pursue additional education & training in bovine emergency response. Planning for bovine emergencies before the emergency was emphasized.

Planning for the bovine emergency event increases the safety of personnel, improves the health and safety of animals, protects farm operations from unnecessary financial loss, and increases the community's emergency capabilities. Just as emergency responders practice in order to maintain human health and safety, planning, preparation, and practice sessions should be implemented for animals' well-being.

To become effective in bovine emergency response and an asset to the community, individuals must first make the decision to become involved. Preparing your farm and family is a critical
step. Individuals are not going to be effective for the community if they are unavailable due to crisis at home. Additional bovine emergency preparedness can be achieved through self education, books, classes, and adding an animal component to disaster preparedness training scenarios.

A critical concept in emergency response is “Community Outreach” prior to an incident. This idea allows for all parties to become familiar with each other. Community Outreach should include meetings with other livestock producers, feed, livestock, and milk transport companies, extension agents, veterinarians, 4-H and FFA groups, as well as community leaders and local first responders. Mutual benefits can be achieved by offering to train with local first responders (hands on with livestock) at your facility in order to learn the languages and levels of experience and training that you and they may possess. This type of training is not only a significant advantage to first responders; it is a benefit for you as your local emergency personnel are now familiar with your facility. During times of large scale disaster, proper response to an emergency requires an invitation to be active. It is not uncommon that individuals who self-deploy to an emergency are not allowed near the incident; they hamper the response by tying-up resources that could be utilized elsewhere. Community Outreach may make it possible for you to be active in a timely, productive manner.

When responding to bovine emergencies, first responders may need to contact a local veterinarian, State District Veterinarian or State Veterinarian. Responders could also request help from:

- County Extension Agent (if trained in livestock)
- Local livestock transporter
- Tow truck operator
- Local producers (experienced with) cattle

And access to:

- Local livestock holding facilities
- Portable corrals/panels
- Person trained in euthanasia
- Deadstock removal

You can become a valuable partner by assembling the above contact information for a response.

There are several critical concepts to bear in mind when working with animals. First, unlike humans, emergency personnel arriving to the scene of the incident is not calming to the animal. Turn off sirens when approaching the scene as the intense auditory alert will frighten the animal, engaging the animal’s flight response. Humans associate this sound with help arriving, while animals find it stressful.

Second, moving trapped/recumbent animals can be immediately dangerous to your life and well-being. In performing this type of procedure you can die, be permanently injured, and become trapped and a victim yourself. This concept is not new to first responders because it is a reality when responding to human emergencies.

When responding to an animal incident always:

- Remain calm, try to keep the animals and all humans involved calm
- Ask for and don’t refuse help or guidance, do not act alone
- Think before acting, don’t react, don’t rush in
- Utilize “Size Up” and “Situational Awareness” concepts
- Strive for containment of animals
- Use Personal Protection Equipment (PPE)
- Resist the temptation to put yourself into a compromising position
- Don’t become a bigger news story

Containment of the animal may often be achieved with simple tools. Readily available items like emergency caution tape and forage can prevent situations from escalating. Don’t rely on the use of pharmaceuticals; they can be ineffective on excited, frightened cattle and may prevent the animal from being incorporated into the food chain due to withholding periods. Human emotions and excitement can complicate an already tense situation and removing overly emotional people may be indicated.

When working with cattle, remember they are prey animals with a flight or fight response. They prefer to remain with the herd and not be singled out. Do not chase lone animals as they will usually come back to the others. Learn and remember cattle flight zones and use the concept to move them. Remember their fight response and stay in the safety zone, avoiding kicking legs and swinging heads.

Humane animal handling concepts were discussed during the presentation in reference to manipulating the recumbent bovine. PowerPoint images were used to demonstrate basic strap placement for simple rescue techniques. When moving the recumbent or trapped animal, do not use the head, tail, or limbs as handles. Forces on limbs exponentially increase with friction. The bovine may be in a state where it is unable to “guard” itself. It is possible and common to “rescue” or “move” the body, but lose the animal. Start with the least technical options in order to move a recumbent or trapped bovine. Always choose the lowest risk, least technical, fastest means of movement. Many times proper technique, not muscle, will result in a successful, safe procedure.

When performing a mud rescue three critical concepts must be overcome - strap placement, suction, and hypothermia. Initial strap placement around the animal can be achieved without digging in the mud by utilizing a Nikopolus Needle. Removing the mud’s suction hold on the body and extremities can be achieved with a mud lance utilizing water or air pressure. Post rescue hypothermia should be anticipated and managed with feed, blankets and veterinary care.

Livestock trailer incidents are highly specialized, very dangerous rescues which involve significant scene management. Police, Fire, and EMT’s will dictate the response effort by first checking for and performing rescue of human occupants. Animal rescue will come secondary. Before creating any size opening in a trailer, it is imperative to plan for containment so that secondary incidents are prevented. Caution must be used when opening a trailer so responders are not injured by animals that are moving toward light and an exit, as well as to protect the animals from further injury inside the trailer. The trailer may have to be deconstructed. Do not enter the trailer and if possible allow the cattle to self-unload. Only trained personnel should assess, manipulate, and rescue the down or trapped cattle within a trailer. Trailers are confined spaces with challenges beyond the animal itself. If you or anyone else gets injured, trapped, or killed the rescue/manipulation of the animals will cease. The personnel/first responders will no longer be concerned about the animals; their priority is to the humans involved.
Veterinarians should be consulted to determine if euthanasia is required. They are the trained licensed professionals who can best determine survivability, and can attest to it in regards to insurance or other legal claims.

Wisconsin Large Animal Emergency Response Inc. (WLAER) exists to reduce the number of injuries and deaths associated with the handling of large animals during emergencies while increasing the safety and efficiency of first responders and veterinarians by creating response teams and implementing training programs.

For more information contact:

Sandy Stutgen, DVM, Agriculture Educator, UW-Extension, Taylor County, Medford, WI
http://taylor.uwex.edu/

Howard Ketover, DVM, Irongate Equine Clinic/ Wisconsin Large Animal Emergency Response, Madison, WI
http://www.irongateequine.com/


Training classes/instructors/websites:
- www.largeanimalrescue.com
- www.tlaer.org
- www.code3associates.org
- http://www.avma.org/disaster/default.asp
- http://training.fema.gov/EMIWeb/IS/IS100b.asp  Introduction to Incident Command System

http://edis.ifas.ufl.edu/vm117  Emergency Considerations for Beef Cattle

Textbooks:

Technical Large Animal Rescue
Rebecca Gimenez, PhD, Major; Thomas Gimenez, DVM; and Kimberly A May, DVM, MS, ACVS
Lameness Prevention
~ A Cattle Husbandry Undertaking ~

Karl Burgi
Dairyland Hoof Care Institute, Inc
Baraboo, Wisconsin

Dairy cows can only produce to their potential if they are healthy. Although strides have been made in the last twenty years in the areas of housing, nutrition and management practices, lameness is a prevalent problem that affects the overall health of the dairy cow. Over the last few years, we have gained a better understanding of hoof health and the causes of lameness. More recently, new research shows how claw horn diseases develop and result in permanent damage. Throughout the world, even hoof trimming is a risk factor when it comes to dairy cow lameness. Claws that are overtrimmed during routine, maintenance trims, along with under-trimming of claw horn lesions during therapeutic trims, can cause hoof health issues.

Consumer demands on animal welfare play an increasing role in how the industry must respond to lameness. As an industry we must move forward by expanding our knowledge and improving our skills to advance hoof health. Functional hoof trimming is perhaps, the most important aspect of lameness prevention.

The dairy management team should consider implementing a “zero tolerance for lameness” policy which should begin with a Lameness Prevention Action Plan. This plan aligns with the goal of good animal husbandry therefore it must include the following:
1. Knowledgeable on-farm staff and hoof care practitioner
2. Proactive trimming schedule
3. Excellent record keeping
4. Daily treatment of lame cows
5. Monitor recovery (recheck) lame cows
6. Trace high maintenance cows for re-evaluation

Trained trimmers
Everyone involved in day-to-day operations is responsible for lameness detection therefore need to fully understand the “zero tolerance for lameness” mission. The person performing hoof care, either on-staff or an outside trimmer must share the responsibility for lameness prevention. A thorough understanding of claw anatomy is essential for the performance of correct functional trimming. The anatomy dictates how much horn should be removed but as equally important is how much claw to leave untrimmed. Not following the guidelines will put cows at risk for new lameness or permanent chronic lameness problems. The on-farm hoof trimmer has to commit the time to perform hoof trimming and it must be scheduled. The trimmers must make the commitment to constantly improve their skills which will achieve desired results.

Lameness identification
Daily identification of lame cows by all dairy farm staff is probably the most essential step to lowering lameness and reducing severity of chronic lameness. Bi-weekly or monthly locomotion scoring by a trained observer allows for early identification of
lameness trends. This is the best way to generate additional cows for the trimming list. Cows that have a mid to high locomotion score must be evaluated.

**Determine trimming schedule**

Too often springing heifers are overlooked as part of the trimming schedule. However, research indicates when springing heifers are trimmed eight to three weeks prior to calving, lameness during the first lactation is greatly reduced. In addition, these young animals have higher first-lactation milk yield and improved feet and leg scores throughout the productive life. On some farms, it has delayed lameness onset for one to two lactations.

Timed functional hoof trimming will reduce lameness and increase net profits. It is crucial that a firm schedule be followed to ensure all cows are assessed and functionally trimmed eight to three weeks prior to calving. The next trim will depend on housing and management. A mid-lactation assessment and trim should be performed between 80-130 DIM shows a practical approach calculating 2.5 to 3.5 trims per year and every 120 days thereafter. The calculation only includes timed trims and does not include lame and high maintenance trims. (Illustration 1) Lame cow trims and recheck treated cows are additional and must be added to the monthly or weekly trim list.

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**Illustration 1**

**Daily treatment of lame cows**

Emergency lame cow care has to be a top daily priority. The delay of prompt lameness treatments results in more extensive or permanent damage to the properties of the claw and surrounding soft tissue. Proper therapeutic hoof trimming procedures must be performed to guarantee recovery of claw horn lesions. Correct block application to the healthy claw is the primary means of immediate recovery of all claw horn lesions. Proper lame cow treatments will require time and patience. Treatment of infectious diseases should follow protocol that is developed by the recommendations of the herd veterinarian. Compliance with drug residue standards the treatment protocol must be followed. Special attention must be made so that lame cows do not take away from the scheduled maintenance trims. (Illustration 2)
Hoof lesion record keeping
Proper identification and recording of claw horn and infectious lesions are an essential part of lameness prevention. Records determine lameness trends. Records are also a very important aspect of providing the management team with valuable information for the decision-making in the lameness prevention process.

Monitor lame cows
Lame cows must be attended to in a timely matter to allow for prompt recovery. Poor recovery leads back to delayed intervention or improper therapeutic procedures. Constant monitoring of treated cows is essential.

Re-evaluate high maintenance cows
Bi-weekly or monthly, evaluate high maintenance or chronically lame cows. The only way one can ensure good animal husbandry is to continuously monitor at-risk animals and ensure every step is taken for their well-being.

Conclusion
Evidence shows too little attention is given to lameness prevention. However, with an action plan, timed hoof trimming and staff commitment it can be one of the best investments the management team can make. Lower lameness equals higher milk yields, better reproduction, increased longevity and healthier cows that produce to their genetic potential, resulting in higher net profits.

#  #  #