

# CALIFORNIA/ARIZONA DAIRYBUSINESS

AUGUST 2008

## HERD HEALTH:

Treat your animals well

See Page CA/AZ 2

## CA/AZ PULSE:

Reporting news in California/Arizona

See Page CA/AZ 6

## BAXTER BLACK:

On the Edge of Common Sense

See Page CA/AZ 11



# HERD HEALTH:

## Treat your animals well



Dr. John Madigan, Int'l Animal Welfare Training Institute, UC Davis, fastens a specially designed sling around the neck of this model during a demonstration at VMTRC in Tulare on how to move a non-ambulatory cow. A real cow was not used for the demo because temperatures were nearly 110 degrees Fahrenheit the day of the workshop.

By Ron Goble

**TULARE – Herd health is an everyday** priority and if producers don't embrace it, their problems have only just begun.

Jim Reynolds, DVM, University of California Veterinary Medicine Teaching and Research Center (VMTRC) in Tulare, led a workshop recently on what dairymen need to know about down cows.

Reynolds said every dairy should work with their veterinarian to develop animal welfare and down cow handling plans. They need a protocol for how they will handle non-ambulatory cows. Thanks to YouTube videos, the industry doesn't need anymore bad publicity in the mainstream media.

"Besides, it is against the law to drag a downed cow," Reynolds stressed.

John Madigan, DVM, International Animal Welfare Training Institute, School of Veterinary medicine, UC Davis, helped design and test a horse sling that they adapted for use on dairy cows.

Downed cows are an issue because it can involve public health. USDA and CDFA don't allow downed cows to be slaughtered for human consumption. They may increase pathogen load at slaughter houses and USDA considers non-ambulatory cattle at higher risk for BSE.

It is an animal welfare issue, or as Reynolds likes to refer to it, an animal husbandry issue. "It's our responsibility to care for animals on our farm and consumers expect us to provide humane care for our livestock," he said, citing a recent Zogby poll that showed downed cattle were "unacceptable" to 77% of consumers polled.

### Small percent, huge impact

While statistics on the number of downed cows is not easy to find, the national animal health monitoring service estimates that between 0.4 to 2.1% of dairy animals become non-ambulatory every year in the U.S. While it is a small percentage of cows, the impact on consumer perception is huge.

Down cattle can result from a wide variety of injuries, accidents and diseases. He mentioned things like calving paralysis, slippery surfaces, estrus mounting, transportation, and facility problems with bolts, pipes and boards.

In addition, he cited numerous metabolic and infectious diseases, including hypocalcemia (milk fever), toxic metritis and mastitis.

Reynolds cited research on down cows by Drs. John Maas and Carolyn Stull, "determining the causes of disabled dairy cattle." *Figure 1* outlines what they found when they examined 50 dairy cattle at a slaughterhouse with trace-back capabilities to the farm.

*Please turn to page CA4*

### FYI

■ To contact Dr. Jim Reynolds, DVM, UC Davis, VMTRC, Tulare, call 559-688-1731 ext. 227 or e-mail [jreynolds@vmtrc.ucdavis.edu](mailto:jreynolds@vmtrc.ucdavis.edu)

■ To contact John E. Madigan, UC Davis, call 530-752-6513 or e-mail, [jemadigan@ucdavis.edu](mailto:jemadigan@ucdavis.edu)

## Herd Health

continued from page CA2

Figure 1

Diagnosis	#cows	#Condemned
Injury	19	1
Calving paralysis	12	3
Mastitis	6	3
Lymphosarcoma	5	4
Metritis	2	--
Other	5	--
Unknown	1	--

He said the California Penal Code, Section 599f, identifies a “non-ambulatory” animal as one that cannot stand or walk without assistance.

Reynolds provided a checklist for what to do when a cow or calf becomes a “downer.”

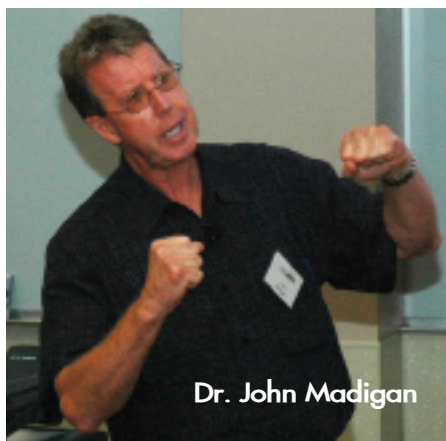
1) Physical examination: assess the distress or suffering of the animal and make a diagnosis.

2) Determine a prognosis.

3) Euthanize if the animal is suffering or if the prognosis is poor.

4) Plan treatment strategies if the animal is deemed recoverable.

If you are treating the animal, move it if necessary, but don't drag it on the ground, he reminded. Use a sled, sling or a tractor bucket (carefully). Provide soft and comfortable bedding, shelter from the environment and from other cattle and wild animals. Make sure they have adequate food and water since an adult



Dr. John Madigan

cow requires between 20 and 40 gallons of water per day.

### Medical treatment

Reynolds suggested checking the animal's temperature as fever may result from possible infection, mastitis, or metritis. Check the animal's legs for fractures or injuries, the udder for mastitis, palpate for pregnancy and check for tumors.

Reynolds said, determine the likely



Dr. Jim Reynolds

outcome of the cow depending on what your physical examination reveals. If the prognosis is poor because of a fracture or other major ailment, humanely euthanize the animal.

“There are two goals in providing medical treatment to downer cattle,” said Reynolds. “First is to correct the cause of the cow's discomfort and inability to stand or walk. Secondly, is to minimize secondary nerve and muscle damage. The animal may suffer from crush syndrome. That is the weight of the cow damaging muscles and nerves. Fifty percent of cows down for more than 3 hours stay down,” he said.

Soft bedding can reduce pressure in large muscle masses. Also, to help manage crush syndrome the herdsman or producer can use slings or hip lifts, which may help the animal to stand and walk. He also suggested rolling the animal from side-to-side every two hours and possibly using water baths.

For pain and inflammation control, he suggested flunixin, aspirin and dexamethasone. He cited the 4-M's: milk fever, mastitis, metritis and musculoskeletal. If the animal is dehydrated use oral, sub-Q or IV treatment. “Do not use hypertonic saline in down cows,” he stressed. If antibiotics are necessary, take into account withdrawal times versus the prognosis.

### Physical treatment

Water baths can be effective. However the response and recovery was mixed in university trials. The animal will probably respond better if the water bath is used early after calving trauma. He stressed that the water must be kept at cow temperature.

Float tanks can be effective. UC Davis non-controlled trials with 70 cows reported a 46% overall recovery rate; 78% recovery rate for cows with calving paralysis; cows down less than 1 day averaged 3 days to stand; and cows down 2 or more days averaged 5 days treatment to stand.

### Euthanasia may be treatment

Reynolds said that the best thing to do for some animals is to humanely euthanize them. It is part of a producer's “moral obligation” to ensure the welfare of animals. Euthanasia is called for when quality of life is decreased or when pain and suffering cannot be alleviated.

He said it was essential that farm staff is educated on the need for euthanasia and on reasons to euthanize cows and calves. Those responsible for euthanizing suffering animals should be properly trained in the best techniques and should confirm the death of the animal before disposing of the carcass in an appropriate manner, he said.

### Every dairy needs a plan

There are specific elements to the dairy welfare audit. Every dairy should have a down cow plan, trained personnel, equipment to comfortably move animals, sheltered area, feed and water, treatment plan, euthanasia program and verification that the above actually happens.

Make it your goal to do the following:

- Prevent non-ambulatory cattle.
- Attend to down cattle quickly, correctly.
- Examine the animal and determine degree of suffering, diagnosis and prognosis.
- Alleviate pain and distress.
- Provide treatment, shelter, water, food.
- Euthanize if indicated.

In all cases, Reynolds says, consult and work with your veterinarian.

### Moving animals

Dr. Madigan showed the evolution of the sling for use on dairy animals, a system adapted from experience with horses. It was originally designed and tested at UC Davis. One of the first contraptions was called the Anderson Sling after Charles Anderson at UCD.

Madigan and Rich Morgan worked with Anderson to simplify sling and make it effective for cattle. “On the farm or in the field, there is a need for a rapid, practical method to life down cows,” said Madigan. “Research has shown outcomes better if a cow is lifted within 5 hours of going down.”

Researchers have lifted injured cows into float tanks to assess their injury and expedite recovery. “Such a process can be costly, labor intensive and may be stressful for the patient,” Madigan said.

Flotation therapy for downer cows conducted by UCD and Cornell University has improved the management of the animals both in the field and hospital settings. □