

Animal Health News



News for Veterinarians from the North Dakota Board of Animal Health

No sign infection has spread

TB quarantine lifted

BISMARCK – The North Dakota Board of Animal Health has lifted the quarantine on cattle in Morton County.

The board voted unanimously to end the quarantine that was imposed to prevent the spread of bovine tuberculosis. The action means livestock producers in the quarantine area can move their cattle on and off their operations at will.

The board had ordered the quarantine after an animal with bovine tuberculosis was traced back to the Tom Fried dairy farm near Mandan. The quarantine covered an area approximately five miles in diameter from the Fried farm.

More than 4,870 cattle and goats were tested for TB. Of those, 4,296 were in the quarantine area. Two herds remain under quarantine because of inconclusive tests.

Sixty-one head from the Fried herd tested positive for TB, but no animals from any other herd showed signs of infection. The Fried herd has since been destroyed, and the premises are being cleaned and disinfected.

The actual source of the infection is still unknown.

Tracebacks have contacted 45 owners of cattle that originated on the Fried herd. The animals that can be located are being euthanized with tissue taken for cultures. On premises where such animals cannot be identified or have been sold, testing is conducted on other animals in the herd. U.S. Department of Agriculture Veterinary Services personnel are conducting most of the tracebacks. High-risk herds will be retested this fall and winter.

To date, the state has spent about \$60,000 and the federal government about \$200,000 in dealing with the outbreak.

The State Game and Fish Department with assistance from the BOAH and USDA, will conduct a survey of deer hunters in the area of the affected premises, and a sampling of small carnivore and rodents from the area is being considered. The state veterinarian, Dr. Larry Schuler said he does not think the TB has spilled over into the wildlife population, but in light of a similar incident in Michigan, an investigation is warranted.

FDA considers ketamine for control listing

An increase in veterinary clinic burglaries is among the reasons the U.S. Drug Enforcement Agency (DEA) has proposed listing ketamine in Schedule III of the Controlled Substances Act, subjecting it to regulatory and criminal controls.

A rapid-acting general anesthetic for human and veterinary medicine, ketamine hydrochloride can produce a unique anesthetic state characterized by sedation, immobility, analgesia and amnesia.

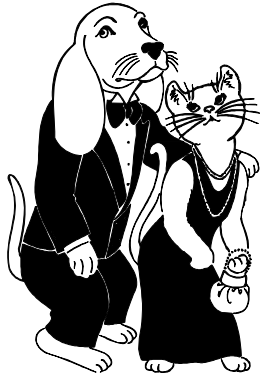
Known as “K” or “Special K,” ketamine is rapidly gaining notoriety as a party drug. Use of the drug has increased widely, especially among teenagers and young adults with corresponding increases in the number of ketamine-related emergency room visits.

The American Veterinary Medical Association is on record supporting the classification of the drug as a Schedule III controlled substance. It is already a controlled substance in 18 states.

More information on illicit use of ketamine can be found on the FDA’s website at www.usdoj.gov/dea/programs/diverson/divpub/substanc/ketamine.htm

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Pet of the Year nominees sought

July 17 is the deadline for entries in the first annual North Dakota Pet of the Year contest, sponsored by the North Dakota Veterinary Medical Association.

Nomination forms will be sent to all veterinary clinics and humane societies in the state. Veterinarians are asked to select one or two of their patients for the award. Nominees must

exemplify the affection, loyalty, security and value of the human-animal bond. Nominees may include animals that have saved or preserved human life, provided a benefit to their human companions or community or provided specially trained assistance.

Each nomination must include the signature

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Animal Health News

is published by

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Ted Quanrud, Editor

Veterinary news briefs

13 approved for licensure

Thirteen veterinarians were approved for licensure by the North Dakota Board of Veterinary Medical Examiners at the board's June 7 meeting.

They are:

North Dakota: Dr. Rudolph Arneson, Belfield; Dr. Irwin Huff, Bismarck; Dr. Jeffrey Kramer, Grand Forks; Dr. Beth Reineke, New Salem; Dr. Shane Reineke, New Salem; Dr. Eric Rowe, Towner, and Dr. Matt Talbott, Ashley

Minnesota: Dr. Thomas Czeck, St. Cloud; Dr. Kyle Peterson, East Grand Forks; Dr. Dennis Lange, Detroit Lakes, and Dr. Jeff Leusman, Duluth

Montana: Dr. Ignacio Idoate, Sidney

South Dakota: Dr. Pat Bierman, Madison

License renewals due

North Dakota veterinary licenses expire June 30 each year. Renewal notices were mailed out in May. Practitioners are urged to return the renewal form and fee of \$35 as soon as possible.

Although the new continuing education requirement (24 hours every two years) takes effect this year, no CE verification is required in 1999 because the requirement must be satisfied in each even-numbered year. Licensees will have to verify 24 hours of CE in the preceding 24 months for the June 30, 2000 license renewal.

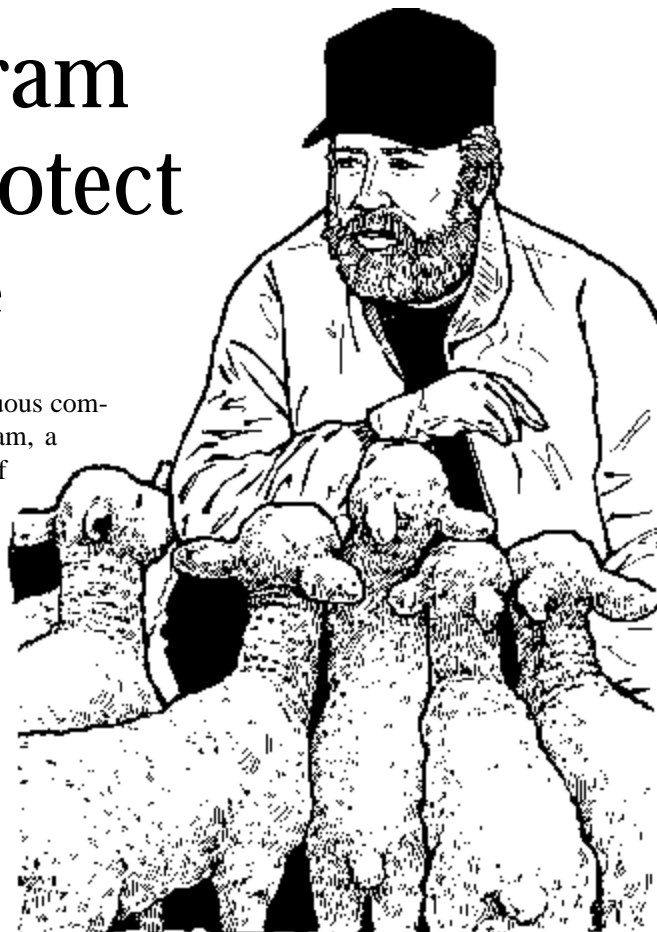
For more information, please contact the North Dakota Board of Veterinary Medical Examiners, P.O. Box 5001, Bismarck, ND 58502; phone (701) 328-9540; fax (701) 224-0435; ndbvme@state.nd.us

NDVMA convention set Aug. 2-4

The 94th annual convention of the North Dakota Veterinary Medical Association will be held Aug. 2-4, at the Doublewood Inn in Bismarck.

For more information, please call (701) 221-7740.

Certification program helps producers protect sheep from scrapie



The Voluntary Scrapie Flock Certification Program (VSFCP) helps participating producers protect their sheep from scrapie and enhance the marketability of their animals through certifying origin in scrapie-free flocks.

A cooperative effort of producers, industry representatives, accredited veterinarians, state animal health officials and the U.S. Department of Agriculture Animal and Plant Health Inspection Service (USDA/APHIS), the program consists of two categories for enrolled producers – complete monitored category and selective monitored category. In the complete monitored category, flocks have either enrolled or certified status.

Diane Sutton, VSFCP coordinator, says the longer sheep are enrolled in the program, the greater the economic value of the animals, especially once the flock has been certified. She says the program is important because it is the only way for U.S. producers to demonstrate that their breeding stock is free of scrapie.

Recent changes in the VSFCP have made the program more producer friendly.

Sutton says one of the more significant changes in the program involved going from a system based on four classes to a system focused on the amount of time a flock is in compliance with the standards.

After 5 years of continuous compliance with the program, a flock is certified free of scrapie.

Producers may now acquire rams from non-participating or lower status flocks without losing their program status. Certified flocks purchasing rams from a non-participating flock will only lose one year of status.

Producers can also use a tamper-resistant eartag in the program, instead of a tattoo or implant. Producers say the tags are easier to use.

The number of producers enrolled in the program has increased 50 percent in the past year. During that time, the number of complete monitored flocks also increased 50 percent from 256 to 388. Twenty certified flocks are currently in the program.

All but 12 states have a flock enrolled in the VSFCP. Idaho has the highest enrollment with 37 flocks. A list of enrolled flocks by state or breed can be found on the Internet at www.aphis.usda.gov.

In each state the certification board reviews applications and approves or disapproves admission to the program. Applicants must supply a list of animals in the flock, a statement declaring the flock free of scrapie and an inspection report by a state or federal regulatory official.

For more information about the Voluntary Scrapie Flock Certification Program, contact the North Dakota Board of Animal Health at (701) 328-2654.

Reprinted in part from the Winter 1999, issue of **SCRAPIE UPDATE**, published by the Livestock Conservation Institute.

Equine practitioners set seminar in Minneapolis

The American Association of Equine Practitioners (AAEP) will present the second of two new continuing-education meetings, August 6-8, in Minneapolis.

The meeting is designed for equine practitioners who split continuing-education opportunities with a partner or associate, or those who could not attend the annual convention

because of scheduling or location conflicts. The program features seminars on joint and peripheral-nerve injections, ophthalmology, lameness and wound management, and a series of papers exploring practical, take-home topics.

For more information, call the AAEP office at (800) 443-0177 or visit AAEP's website at www.aaep.org

NEOSPOORA

Protozoal infection a leading cause of cattle abortions

A disease that costs the California dairy industry several million dollars annually in losses and inflicts heavy cattle losses in Canada, Mexico, New Zealand, Australia and the Netherlands has now been diagnosed in 36 states, including North Dakota.

Neospora infection has been reported in cattle, sheep, goats, horses and deer. According to Mark Anderson, professor at University of California-Davis, bovine neosporosis, caused by the protozoal parasite, *Neospora caninum*, has emerged as an important reproductive disease since its first association with a 1987 abortion outbreak in New Mexico.

Reports from California and the Midwest have confirmed this infection as a significant cause of abortion, particularly among dairy cattle. In California, 18 to 19 percent of all aborted bovine fetuses submitted to that state's veterinary diagnostic laboratories are diagnosed with Neosporosis. The veterinary diagnostic laboratory at North Dakota State University has diagnosed Neospora infection as the cause of three incidents of cattle abortion in North Dakota so far this year.

Pathogenesis

How cattle acquire Neospora infection is currently the subject of considerable research. Mark Thurmond, professor of veterinary epidemiology at U.C.-Davis, says one confirmed route of transmission – transplacental infection to a fetus from an infected dam – is the most likely means with 95-100% of infected cows transmitting the parasite to their fetuses.

Postnatal transmission has also received considerable attention. Milton McAllister, associate professor, University of Illinois. McAllister and other researchers have recovered Neospora from the tissues of mice that had been inoculated with oocysts collected from the feces of 8-week old beagles. The dogs passed the oocysts after being fed the tissues of a separate group of mice infected with Neospora from an aborted bovine fetus.

“The research proves that dogs are a definitive host, but it is not proof, per se, that dogs are usually responsible for infecting cows,” McAllister says.

Recent Canadian and Dutch serological studies demonstrate that cows are more likely to be Neospora seropositive on dairies that have dogs, and that this risk increases with the number of dogs on the premises. A Japanese study proved that dogs living on dairies with bovine neosporosis are more likely to have antibodies to Neospora than are city dogs.

“Viewed together, these studies convincingly demonstrate that Neospora does indeed cycle between dogs and cattle,” says McAllister.

Thurmond says that while much of the research on postnatal transmission has been on dogs, other carnivores, including cats, owls and coyotes, are known to defecate around barns, and that if dogs are the only definitive hosts then it is difficult to explain why many dairies with a large number of dogs have very little postnatal transmissions.

Clinical presentation

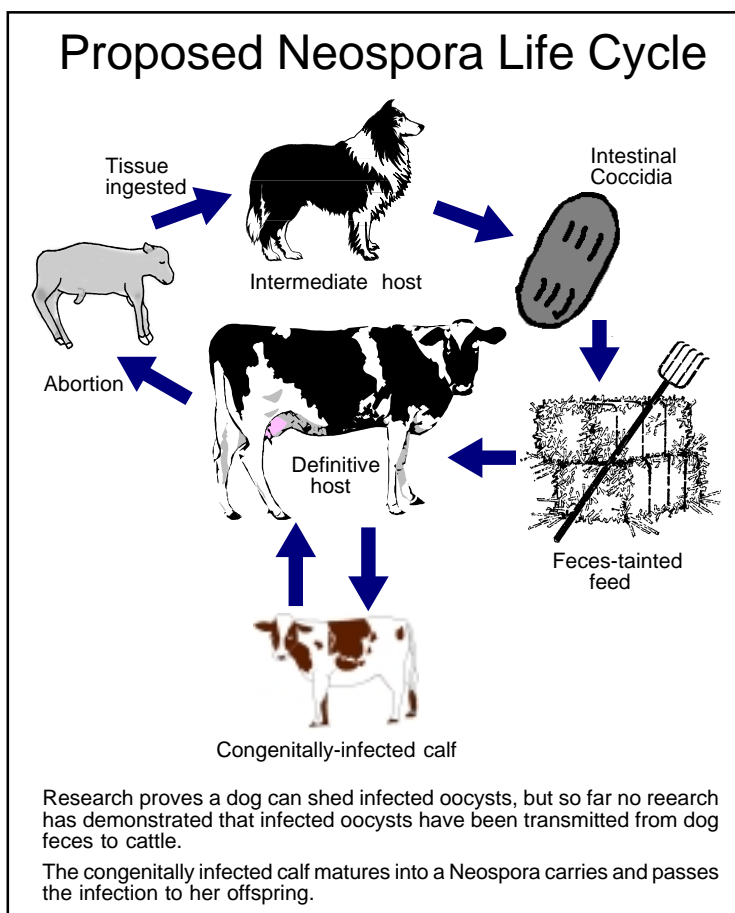
Abortion is the only clinical sign observed in Neospora-infected cows. Aborted fetuses are usually autolytic. No gross lesions are generally observed, and placentas are not retained. While abortions have been diagnosed in both heifers and cows from three months gestation to term, it is unknown whether the infection can cause

reproductive problems in the first trimester.

Neospora infections occur in both dairy and beef cattle, but most reports of significant numbers of abortions are associated with dairy cattle, particularly those in drylot dairies.

Diagnosis

The assistance of a veterinary diagnostic laboratory is required



Anthrax found in Montana

BILLINGS, MT -- Anthrax has been confirmed as the cause of death of at least one cow near Billings.

The Montana state veterinarian's office said seven other cows in the same herd also died, but could not confirm whether the seven died of anthrax.

Officials refused to say who owned the cows or exactly where the outbreak occurred, but confirmed that the cows died on a ranch along lower Pryor Creek east of Billings.

The ground where the cows died has been burned, sprayed with a chemical disinfectant and fenced off. The carcasses have been buried. The rest of the herd has been vaccinated and is under state quarantine.

In addition, all people who came into contact with the dead animals are taking

antibiotics as a preventative measure. Officials believe the outbreak has been contained and that humans are not at risk.

Anthrax is a rapidly spreading disease that affects all mammals. It is caused by a bacteria, *Bacillus anthracis*, that can remain dormant in the ground for decades. Most animals get it from grazing on infected ground. Human beings can get anthrax in different ways - from inhaling the spores to eating contaminated meat. The disease is not always fatal. Anthrax from inhalation is the most deadly, and anthrax acquired from infected animal hides is milder.

The last recorded human case of anthrax in Montana was in 1961. The last recorded case of an animal with anthrax in the state was in 1985.

The first cow suspected to have anthrax

was found dead during calving season, when the rancher was spending a lot of time with the animals. When more animals started dying unexpectedly, he called his veterinarian, who conducted an autopsy on one of the cows. The veterinarian also called the state veterinarian, who in turn called in another veterinarian from the Centers for Disease Control and Prevention, Atlanta.

Jim Peterson, executive vice-president with the Montana Stockgrowers Association, said he was content with the state's efforts to contain the disease. He said he does not expect any economic hardships or significant impact as a result of the incident.

Material for the article was taken from articles in The Billings Gazette and from a press release issued by the Montana Department of Livestock

Dogs possible link to spread of Neospora

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to confirm a suspect Neospora infection. The preferred samples in cases of abortion include one or more aborted fetuses submitted with placenta and sera from the dam.

"We look at the entire fetus because we are not just looking for Neospora infection," Anderson says. "We also may be looking at BVD, leptospirosis or other causes."

The pattern of inflammatory lesions in most organs can lead us to a presumptive diagnosis of Neospora infection that can be confirmed by immunohistochemistry. "Lesions on the brain, skeletal and heart are unique and most distinctive to Neospora," he says.

Serum from both aborted and nonaborted cows is needed to determine whether or not Neospora is contributing to a herd abortion problem.

Control and Prevention

McAllister suggests fencing hay, silage and other feedstuffs that are often stacked or piled on the ground to prevent dogs from defecating in feedstuffs prior to mixing livestock rations.

He also recommends spaying female dogs, controlling stray

dogs and preventing dogs from eating dead calves or other bovine carcasses.

The USDA Animal and Plant Health Inspection Service has issued a conditional license to Bayer Corp. for the manufacture and distribution of *Neospora Caninum* killed protozoa vaccine, which has been tested in field safety trials in California, Missouri and New York on 714 animals.

"We still have a lot of research ahead of us to prove the vaccine's efficacy," says Leszek Choromanski, senior research scientist at Bayer Animal Health, who has spent the last three years working on the development of this vaccine.

By the end of 1999, Bayer must provide USDA with research proving the vaccine's efficacy. If the research is substantial, then the vaccine may be approved and granted a regular license. Scientific and technical difficulties in otherwise satisfactory research may cause USDA to extend the conditional license for a year. Choromanski adds that if the research fails to prove efficacy, USDA could revoke the license.

Reprinted in part from an article in the Winter 1999, issue of **CATTLE HEALTH REPORT**, published by the Livestock Conservation Institute.

Infectious equine anemia confirmed; one animal dead

BISMARCK – Several recent, confirmed cases of equine infectious anemia (EIA) have been reported in North Dakota.

Five horses in North Dakota have recently been diagnosed with the disease, and one of the animals has died. Although three different owners are involved, all the animals had had contact with each other, and it is possible that all the cases are linked to a common source.

The number of animals involved is fairly significant. The state usually records only one case every two or three years.

A viral disease, EIA is generally spread by larger blood-sucking insects, such as horse flies and deer flies. The infection can also be spread mechanically through use of unclean hypodermic needles.

EIA can readily be detected by a Coggins test. North Dakota and many other states require that all horses coming into the state must have a negative Coggins test.

Symptoms include fever, small blood-colored spots appearing on the mucous membranes, depression, swelling in the legs and under the chest and general anemia. The disease can be fatal to horses, but animals can also develop a chronic form of the disease with recurrent symptoms. No vaccine is presently available.

EIA poses no threat to human health, except to individuals with suppressed immune systems.

Horse owners can take a number of precautions to prevent the risk of infection, including:

- Use disposable syringes and needles. Follow the rule: one horse one needle.
- Clean and sterilize all instruments thoroughly after each use.
- Keep stables and immediate facilities clean and sanitary. Remove manure

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Dairy diagnostic teams benefit both producers, veterinarians

The North Dakota Dairy Diagnostic Advisory Team program is helping dairy farms of all sizes remain profitable. Developed a year ago as a pilot project by the Dairy Strategic Planning Task Force, the program can also help suppliers and service providers, including veterinarians, improve their bottom line.

A dairy diagnostic team is made up of people, such as the herd manager, veterinarian, nutritionist, agricultural lender, milk plant field representative, extension agent, A.I. representative, crop consultant, and even another dairy producer, who have a role in the success of a dairy business. The team is selected on the basis of the dairy producer's needs and goals.

It's obvious what a veterinarian can do for the dairy farm advisory team, but what can the team do for the veterinarian?

Dairy diagnostic teams improve communication between producers and other team members. Team members better understand issues between their business and other businesses associated with the farm. As the dairy farm becomes more profitable, the more veterinary services it requires. Thriving dairy farms mean long term stability for a veterinary practice. As veterinarians establish stronger relationships with individual dairy farms, they spend less time chasing problems and more time implementing up-to-date practices. As the livestock community grows and prospers, so do associated dairy practices.

Success stories from the first year include increasing cash flow on one farm by \$7,200 in one month without any added costs, and helping establish a new dairy operator, who otherwise would not be utilizing agricultural services.

Large animal practitioners can take a pro-active approach to a successful future in the animal agriculture community by joining local advisory teams. Typical time commitment is 1 to 1½ hours per team per month. This will likely be in addition to regular herd stops, but not every team member needs to be at every meeting, depending on the topics and goals of the meeting.

For more information on the North Dakota Dairy Diagnostic Advisory Team, call the program coordinator, John Johnson, at (701) 361-2987 or J.W. Schroeder at (701) 231-7663; fax: (701) 231-7590.

Euthanized carcasses pose danger to eagles

Failure to properly dispose of euthanized animal carcasses poses a significant risk to bald and golden eagles and other raptors, and that in turn can prove disastrously expensive for responsible individuals.

Federal regulations under the Endangered Species Act, Eagle Protection Act and Migratory Bird Treaty Act, authorize penalties of up to \$100,000 and/or a year in prison for causing the death of an eagle. Subsequent convictions can be treated as felonies.

During the past year, the U.S. Fish and Wildlife Service (FWS) has reported 26 bald or golden eagle deaths from compounds contained pentobarbital, commonly used to euthanize livestock. In British Columbia, another 26 eagles were poisoned – five fatally – when they fed on a single euthanized cow carcass.

No such cases have yet been reported in North Dakota, but FWS officials in the state say similar incidents can and may have happened here.

In Colorado, veterinary and wildlife officials blame poor communication between attending veterinarians and livestock owners for many of the large num-

ber of accidental eagle poisonings in that state. They say practitioners and owners must fully understand who is responsible for disposing of the euthanized carcass, as required by law.

Veterinarians should also make sure the owner knows that the animal was euthanized with a poison, and the risk of secondary poisoning to other animals is great if the carcass is not buried or burned.

State law (North Dakota Century Code 36-14-19.3) requires proper disposal of animal carcasses.

If the carcass of an animal which has died of a disease other than is specified in subsections 1 and 2, or from any other cause, it must be burned, buried, composted, or given to a licensed rendering plant within 36 hours, or must be disposed of by a method approved by the state veterinarian. If the carcass is buried, it must be buried not less than four feet [1.22 meters] below the surface of the ground and be covered with dirt



to that depth. No carcass may be disposed of along any public highway or along any stream, lake, or river nor be buried near or adjoining any such place.

Questions about the proper disposal of livestock and other animal carcasses should be directed to the State Veterinarian's office at (701) 328-2654.

Material for this article was obtained in part from April 1999, issue of **ANIMAL INDUSTRY DIVISION NEWSLETTER**, published by the Colorado Department of Agriculture.

Infectious equine anemia confirmed

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- and debris promptly, and ensure that the area is well drained.
- Implement insect controls. The local veterinarian or animal health official can provide information about approved insecticides and other insect-control measures.
- Do not intermingle infected and healthy animals. Do not breed EIA-positive horses.
- Isolate all new horses, mules, and asses brought to the premises until they have been tested for EIA.
- Obtain the required certification of negative EIA test status for horse shows, county fairs, racetracks, and other places where many animals are brought together.
- Abide by state laws regarding EIA.

Pet of the Year nominees sought

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of the animal's owner and the name of the animal's veterinarian.

The nominees will be reviewed by a panel of judges who will select the winners. Presentation of the awards will be made during the NDVMA annual meeting in Bismarck, Aug. 2-4.

For more information about the Pet of the Year contest, call Dr. Kristi Pennington at (701) 627-3159.

On the Edge of Common Sense

By Baxter Black, DVM

Hello. You have reached the automated voice mail of Triple-A Aardvarks Are Us – All Creatures Great and Small Veterinary Clinic, Animal Health Supply, Grooming, Boarding, Training and Counseling Center.

If you have a credit card limit of no less than five thousand dollars please press 1. If not, please hold.

[1] Thank you.

– If your problem, concerns a pet, including dogs, cats, small rodents, reptiles, cockatiels, highway accidents and other creatures where cost is no object, please press 1.

– If you have livestock whose value is dependent upon a fickle, unpredictable, often cruel market BUT you have a good job in

town or a wife with a job or federal disaster insurance or land and farm equipment that can be used as collateral, please press 2.

[2] If you have a poultry problem, please press 1 for the Campbell's Soup buyer.

If you are a pork producer, please press 2 for counseling and hysteria prevention.

If your problem concerns cattle, please press 3.

[3] If the condition is serious enough (over \$500) and you can bring the animal to the clinic, please press 1.

If the condition is not life-threatening or you do not have a stock trailer, please press 2.

[2] If you have already been treating this animal yourself for weeks, please press 1.

[1] If the animal is ambulatory, please press 1.

• If the animal is recumbent, please press 2.

• If the animal is comatose, please press 3.

[2] If the animal has been down for less than two days, please press one.

[1] If the animal is still eating and drinking, please press 1.

• If the animal is not eating but still has a detectable pulse and respiration, please press 2.

[2] We have now reached the critical stage in this automated voice mail Diagnostic Situation Prognosis Assessment Device. Your prognosis is: Poor to partly cloudy - estimated cost is \$112. Add \$5 for weekend and after hours. Satisfaction barometer 3.



– If you would like to have the veterinarian make a house call, please press 1.

– If you want to kiss it off and bite the bullet, please press 2 for Jonansen's Hide and Tallow.

[2] Thank you and have a nice day.

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