VIRGINIA COOPERATIVE EXTENSION SERVICE

EXTENSION DIVISION - VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY - BLACKSBURG, VIRGINIA 24061

VIRGINIA-MARYLAND
REGIONAL COLLEGE
OF
VETERINARY MEDICINE

VIRGINIA VETERINARY NOTES

February 1981 No. 2

WHAT'S INSIDE - - - -

Kent C. Roberts, D.V.M.
Extension Specialist
Equine and Companion Animals

MEETINGS

Technology of Embryo Transfer
Donaldson Brown Continuing Education Center, Virginia Tech
March 21-22, 1981 - Classroom and wet lab workshop on the technique of bovine embryo transfer.

Virginia Dairy Cattle Nutrition Council
Red Carpet Inn, Waynesboro - 10:30 a.m. to 3:00 p.m.,
March 12, 1981 - The tentative program includes a discussion of residues in milk, including iodine and antibiotics.

Therapy of Immune Medicated Diseases-Linda L. Werner, D.V.M.
A. H. Robins Building, Central Virginia Veterinary Medical Assn.
March 26, 1981

Common Toxicosis in Small Animals - Blair Meldrum, D.V.M., Ph.D.
Piedmont Veterinary Medical Association, Lynchburg, Virginia.
March 26, 1981.

FDA LEAVES REGULATION OF RECYCLED ANIMAL WASTE TO STATES

The States, instead of the Federal Government, are now responsible for regulating the use of recycled animal waste in animal feed. FDA has revoked its policy of not sanctioning the use of poultry litter in the feed.

Livestock and poultry producers accumulate large quantities of animal waste that present ecological and economic problems of disposal. The use of animal waste as a fertilizer is a partial solution to the problem. Research has established that animal wastes have nutrient value as an ingredient of certain animal feeds. However, FDA has been concerned about allowing the use of animal waste in this way because of the possibility of drug residues and drug metabolites occurring in the recycled waste or of disease being transmitted.

FDA issued a policy statement in September 1967 saying it did not sanction the use of poultry litter as animal feed. The agency subsequently adopted this policy for all animal waste with potential for use as an ingredient in animal feeds because the amount of information available was not considered adequate to conclude that recycled animal waste is safe as a feed ingredient.

Since publication of the agency's policy statement, extensive research has provided a great deal of additional information. FDA has learned from a review of the research that some processing of animal waste intended for use as a feed ingredient is necessary to minimize the possibility of harmful levels of pathogenic microorganisms that may be present in the waste. FDA is now encouraging the States to develop quality standards in this area.

Since the recycling of animal waste is primarily a local practice (the bulk and weight of the end product are such that shipment

to distant places is uneconomic because of transportation costs), and because the States have the capacity to effectively regulate this use. FDA has decided to lessen its regulatory efforts in this area in favor of State control.

Bureau of Veterinary Medicine
Food and Drug Administration
Rockville, MD
December 1980

AVMA POSITION STATEMENT ON THE ROLE OF ANIMAL TECHNICIANS

"The role of animal technicians is to assist in the practice of veterinary medicine under the direction, supervision, and responsibility of veterinarians, and in compliance with state and federal laws. The duties of the animal technician shall not include diagnosis, prescription, or surgery.

Use of animal technicians in federal and state regulatory activities should be limited to the role of animal technicians in the practice of veterinary medicine under the direct supervision of a veterinarian."

H. G. Geyer, D.V.M.
Staff Leader
Livestock & Veterinary Sciences
December 1980

PRACTICE TIPS

Veterinarians should be aware that many cow-calf producers are feeding their pregnant animals during the last 30 days of pregnancy only in the evening (6-9 p.m.) resulting in a high (80-90%) percent of calvings in daylight hours. Pass this information on to your cow-calf producers. Might save getting out of bed a few times.

Herd Health Memo - November 1980
University of Kentucky
Veterinary Medicine Extension

Hyaluronidose (Wydase) 1 ml in 1 liter lactated Ringer's solution absorbs in 20 minutes from subcutaneous injection at single site; important in rehydrating calves with diarrhea.

Dr. Gerald Snider
Herd Health Memo
University of Kentucky
January 1981

STRETCHY SKIN SYNDROME IN CATS

This interesting and unusual genetic condition known as Dermatosparaxis ("tearing skin") is caused by a simple autosomal

recessive gene. Sheep, cows, and man are known to be affected also.

The skin is fragile and hyperextensible with a "velvety thin" pliable feel. Lacerations are easily produced during such routine activities as nursing, grooming, scratching, or even play. Small lacerations will tend to gap widely with less bleeding than might be expected. Sutures tear out very easily in repairing lacerations of the skin, but healing progresses at an apparently normal rate.

Histopathology includes a very thin pale dermis with abnormally small collagen fibers. The electron microscope reveals that dermal collagen fibers are tangled and disorganized. Fibrils within the fibers run in many directions instead of the normal parallel arrangement. Fibrils tend to be flattened instead of cylindrical in shape.

Recessive traits are most often due to enzyme deficiencies and this would seem to be the case in Dermatosparaxis. Altered molecules of procollagen instead of normal collagen accumulate in the dermis and result in loss of tensile strength.

There is no known treatment. Affected individuals should be protected from trauma as much as possible. Declawing might be advisable. Affected animals should not be used for breeding, nor should identifiable carriers.

Studies of affected animals, primarily cattle, have provided information resulting in a significant advance in the understanding of collagen development and metabolishm.

Annual Cornell Conference for
Veterinarians - January 1981 -
reported by Kent C. Roberts, D.V.M.

NO FEDERAL INDEMNITIES FOR LIVESTOCK OR POULTRY INFECTED BY ILLEGAL PRODUCTS

The U. S. Department of Agriculture will no longer pay indemnities for destruction of diseased livestock or poultry when infection results from the knowing use of an illegal product or potential disease carrying agent.

Products and agents such as vaccines, semen, embryo transplants, and other potential disease carriers are illegal when imported or used in violation of federal-state quarantines laws.

According to C. G. Mason of USDA's Animal and Plant Health Inspection Service, USDA has cooperated with states to control and eradicate communicable livestock and poultry diseases since 1884. This includes paying indemnities to farmers and ranchers when infected or exposed animals and materials are destroyed as a means of eradicating a disease outbreak, he said.

"We will continue to pay such indemnities--but not to persons who knowingly use an illegal product or vector," Mason said.

Although vaccines are usually thought of in positive terms, Mason said, "under certain circumstances their use may cause infection or result in animals becoming disease carriers". Semen, for example, is a known vector for about 35 diseases including foot-and-mouth disease and hog cholera, he said.

The new rule takes effect on December 31. The public has a 60 day period to comment. Remarks and suggestions should be sent to the Deputy Director, USDA, APHIS, Federal Building, Room 748, Hyattsville, Maryland 20782.

News
U. S. Department of Agriculture
January 1981

GUINEA PIGS

These gentle rodents are great gnawers that like to burrow. They rarely climb or jump and can be kept in enclosures without tops.

There are three varieties: English (short hair) Abyssian (rough hair) and Peruvian (long hair). Normal life expectency is 6-9 years. One male (boar) can be kept with several females (sows). A vaginal plug of coagulated semen may be found after breeding has occurred. First breeding should take place at 3-6 months of age. The average gestation is 62 days with variations of 59-72 days and litters of 1-6 young.

Guinea pigs are messy eaters and drinkers. They do well on guines pig chow supplemented with cabbage, spinach, alfalfa, carrots, kale, etc. Like man, they cannot synthesize Vitamin C and it must be provided in the diet (10-30 mg/kg/day). Vitamin C deficiency causes weakness, anorexia, stiffness, and cutaneous sores.

Health problems include heat stroke (most common in pregnant sows), respiratory infections, lymphadenitis (neck nodes), coccidiosis, pregnancy toxemia, and dystocia. Most respiratory disease is stress related and is manifested by dyspnea, nasal discharge, and anorexia. Oral chloramphenicol suspension (30 mg/kg/day) is a good broad spectrum antibacterial. Penicillin should not be used in guinea pigs. Yogurt helps to overcome antibiotic toxicity.

For surgical procedures methoxyflurance is safer than halothane. Ketamine/acepromazine combinations (10:1) can be used for many procedures.

Small Mammal Management Short Course
November 1980
Stuart L. Porter, V.M.D.
Blue Ridge Community College

SUCCESS IS NO ACCIDENT

The appearance of your clinic, office, or practice vehicle is important and says a lot about your self-esteem and practice management. Cleanliness and orderly appearance go hand in hand with professional competence to create a favorable image in the community.

Take a good look at your building, inside and out. Does it convey the impression of a well managed professional practice? Is your practice vehicle a rolling disaster area?

Maintaining an attractive, clean, orderly clinic is fundamental to success.

Kent C. Roberts, D.V.M.
Companion Animal Extension Specialist

SPRING AND SUMMER SHEEP MATINGS SUCCESSFUL

By exposing sheep to artificial lighting conditions that simulate the fall breeding season, researchers have successfully induced spring and summer matings.

This could change lamb production from a seasonal to a nearly year-round operation, says SEA physiologist Bruce D. Schanbacher.

Nature programmed sheep to be short-day breeders, Schanbacher explains. The gradually shortening day-length, or photoperiod, of fall triggers complex hormonal responses initiating their annual sexual cycle. However, rams can be led to believe it's the October breeding season in May, inducing them to approach their autumn readiness to mate successfully.

Schanbacher simulated the response usually produced by fall's short days by maintaining five Suffolk rams under a photoperiod of 8 hours light and 16 hours darkness from late February through a 3-week breeding season in May.

The Suffolk is one of the breeds most affected by photoperiod. Yet, the short-day rams sired 2½ times as many lambs as five Suffolk rams kept outside, where the spring days were getting longer.

The rams were exposed to 300 Finnish Landrace crossbred ewes in which out-of-season heat (behavioral estrus) was induced by treatment with reproductive hormones.

"Since sheep are short-day breeders and have an average gestation of 150 days, lambs normally arrive in April or May," Schanbacher says. "Exposing both rams and ewes to artificial photoperiods may be a useful management tool for distributing the lamb crop at predetermined times of the year."

Producing two lamb crops a year, under confinement or semi-confinement management, would make full use of the ewe's reproductive

capacity, expand marketing periods, equalize lamb labor requirements, increase utilization of lambing facilities, and consequently lower the producer's overhead costs per lamb.

Schanbacher, at the Roman L. Hruska U. S. Meat Animal Research Center, Clay Center, Nebraska, is investigating the photoperiod effects on ram reproductive performance as part of a team effort to determine whether out-of-season matings in sheep can be made a practical management practice (Agricultural Research, January 1977, pp. 7-9).

The effects of photoperiod on estrus activity in ewes and on sperm production and breeding performance in rams were documented 15 to 20 years ago. More recently, French researchers showed that photoperiod affects the levels of certain reproductive hormones in rams. Photoperiod also affects testis size, which is an indicator of mating success.

Agricultural Research
December 1980

SUSPECTED VACCINE-INDUCED RABIES IN CATS

A total of 5 cases of rabies in cats, possibly induced by modified live virus (MLV) rabies vaccines, have been reported to CDC since March 1979. Two of these cases occurred in Georgia, 2 in Michigan, and 1 in Nebraska.

All 5 cases occurred in cats vaccinated with MLV vaccine containing the SAD strain of rabies virus. In 4 of the cases the cats had been vaccinated with 4 different lots of vaccine from 1 manufacturer; in 1 case the cat was vaccinated with vaccine from a different manufacturer.

Onset of clinical illness in the 5 cats occurred 13-17 days post-vaccination, typically beginning with paralysis in the vaccinated rear leg and ascending to eventual quadriplegia. At least 4 of the animals were alert and continued to eat and drink throughout their clinical illness. Ages of the animals ranged from 1½ to 10 years. All had been previously vaccinated with rabies vaccine 1 year or more before the vaccinations that caused rabies; earlier vaccination had been with the same or other MLV vaccines or with inactivated vaccine.

Four of the 5 cats were ill for at least 2 weeks; all 5 were killed for rabies testing. All were confirmed rabid by fluorescent microscopy and/or mouse inoculation tests. The 2 companies distributing the incriminated SAD strain vaccines have voluntarily withdrawn these vaccines from the market for use in cats.

Veterinary Medicine Newsletter
University of Florida
VM 1832, May 1980

The following tables are from: Carter, G. R., DVM, DVSC, (Department of Microbiology and Public Health, Michigan State University). Those Annoying Changes in the Names of Microbes. Veterinary Medicine/Small Animal Clinician, July, 1980, pp. 1109-1110

TABLE 1—Changes in the Names of Bacteria of Veterinary Significance

Former Name	Current Name
Clostridium feseri	*Clostridium chauvoei**
Erysipelothrix insidiosa	*Erysipelothrix rhusiopathiae**
Pasteurella bovis, P. suis, P. avicida, P. septica, etc.	*Pasteurella multocida*
Aerobacter	*Enterobacter*
Pasteurella mastitidis	*Pasteurella haemolytica*
Pasteurella pseudotuberculosis	*Yersinia pseudotuberculosis*
Bacterium enterocoliticum	*Yersinia enterocolitica*
Shigella equirulus	*Actinobacillus equuli*
Pasteurella tularensis	*Francisella tularensis*
Diplococcus pneumoniae	*Streptococcus pneumoniae*
Streptobacillus moniliformis	*Actinobacillus muris*
Clostridium welchii	*Clostridium perfringens*
Vibrio fetus var. venerealis	*Campylobacter fetus* ss. fetus
Vibrio fetus var. intestinalis	*Campylobacter fetus* ss. intestinalis
Vibrio jejuni	*Campylobacter fetus* ss. jejuni
Staphylococcus albus	*Staphylococcus epidermidis*
Spherophorus necrophorus	*Fusobacterium necrophorum*
Fusobacterium nodosus	*Bacteroides nodosus*
Chlamydia ovis, C. felis, etc.	*Chlamydia psittaci*
Mima polymorpha	*Acinetobacter calcoaceticus*
Herellea vaginocola	*Acinetobacter calcoaceticus*
Bacterium anitratum	

*This was an earlier widely used name.

Portions of this table are reproduced with permission from: Branson, D.: The Chaos in Bacterial Nomenclature. *Infectious Diseases 10*(2):4; 1980.

TABLE 2—Changes in the Names of Some Fungi of Veterinary Significance*

Former Name	Current Name
Monilia	*Candida*
Sporotrichum schenckii	*Sporothrix schenckii*
Cephalosporium	*Acremonium*
Absidia ramosa	*Absidia corymbifera*
Allescheria boydii	*Petriellidium boydii*
Hormodendrum	*Cladosporium*
Emmonsiella	*Ajellomyces*
Entomophthora coronata	*Conidiobulus coronatus*
Prototheca filamenta	*Fissuricella filamenta*
Cryptococcus neoformans	mating types A, D: *Filobasidiella neoformans* mating types B, C, F: *F. bacillispora*

*Modified from: Branson, D.: The Chaos in Bacterial Nomenclature. *Infectious Diseases 10*(2):4; 1980. Reproduced with permission.

Michigan Veterinary Forum
Michigan State University
January 1981

HORSE COATS

Your show horse clients may be interested to know that supplemental light can do more than stimulate estrus cycles early in the season. 200 watts/stall for 16 hours/day will have horses shedding hair within 5-6 weeks. The light program will get them to shed with or without the use of supplemental heat, blankets, etc. The result is better-looking horses in time for early shows without the need for body clipping.

Horses placed on additional lighting in September will keep a shorter hair coat throughout the winter although their coats may become somewhat thickened.

On the other hand, excess use of heavy blankets and heated barns increases the danger of respiratory disease due to sudden temperature change. Heavy hair coats also cause more problems cooling out wet horses after working in cold weather.

Dr. R. D. Scoggins
College of Veterinary Medicine
University of Illinois

CANINE FOOD ALLERGY

Only about half of canine food allergy manifests itself as gastrointestinal disease with intermittent vomiting and diarrhea as principal signs. Another 25% show intestinal disease in combination with dermatological problems such as pruritis which may be accompanied by a papular eruption or urticaria. The remaining 25% show only a dermatological disease causing a perennial pruritis with a variety of other skin lesions, many the result of self-inflicted trauma.

The only valid food allergy diagnostic method is by an elimination diet study. Place an animal on a special diet of clearly defined constituents such as chicken and rice for three weeks. This diet must not have constituents normally found in the animal's diet. If food allergy is the animal's problem, a reduction in pruritis within three weeks indicates a positive test. Confirmation can be accomplished by placing the animal back on its original diet for two weeks. If food allergy is present, allergic problems will worsen.

Treatment of choice is the elimination of the offending dietary substance. Corticosteroids are highly effective, but antihistamines are usually of little value.

Adapted from WSU Animal Health Notes
October 1980

MOST VALUABLE HORSE

The highest price ever paid for a racehorse is $9 million for the Minstrel, a stallion born in Canada, trained in Ireland and bought by Edward P. Taylor of Ontario Canada in August, 1977.

HOW TO KNOW YOU'RE GROWING OLDER

Everything hurts and what doesn't hurt, doesn't work.

The gleam in your eyes is from the sun hitting your bifocals.

You feel like the night before, and you haven't been anywhere.

Your little black book contains only names ending in M.D.

You get winded playing chess.

You finally reach the top of the ladder, and find it leaning against the wrong wall.

You begin to outlive enthusiasm.

You decide to procrastinate but then never get around to it.

Your mind makes contracts your body can't meet.

A dripping faucet causes an uncontrollable bladder urge.

You know all the answers, but nobody asks you the questions.

You look forward to a dull evening.

COOPERATIVE EXTENSION SERVICE
U. S. DEPARTMENT OF AGRICULTURE
VIRGINIA POLYTECHNIC INSTITUTE
AND STATE UNIVERSITY
BLACKSBURG, VIRGINIA 24061

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF AGRICULTURE
AGR-101
Third Class
Bulk Rate