

VIRGINIA-MARYLAND  
REGIONAL COLLEGE  
OF  
VETERINARY MEDICINE

# VIRGINIA VETERINARY NOTES



January-February 1983

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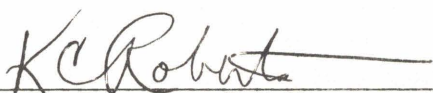
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 \_\_\_\_\_  
 Kent C. Roberts, D.V.M.,  
 Extension Veterinarian

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## FAREWELL AND BEST WISHES

Dr. Gordon A. MacInnis, associate professor in the Division of Agricultural and Urban Practice, Extension Project Leader, and Extension Swine Specialist, has retired from the College this month after 20 years of service to Virginia Tech.

A 1950 graduate of the College of Veterinary Medicine at The Ohio State University, Dr. MacInnis spent 10 years in private practice and two years as a large animal clinician at the University of Idaho and Washington State University before joining the Virginia Tech faculty as a clinician for the University's herds and flocks. One of 17 members of the former Veterinary Science Department who joined the College of Veterinary Medicine faculty, Dr. MacInnis has served the College as a preventive medicine clinician/consultant to practitioners and to swine producers. He has been course leader for the Regulatory Medicine and Public Practice block, Extension Coordinator for the Veterinary Medical Teaching Hospital, and is a former member of the MERC Board, the Admissions Interview Team, and the Promotion and Tenure Committee. He has served on the University's Extension Swine Industry Committee, the Identification and Brucellosis Committees of the Livestock Conservation Institute, and the Regulatory Medicine Committee of the Virginia Veterinary Medical Association. He has been co-editor of Virginia Veterinary Notes, a 4-H Veterinary Science Program advisor and coordinator of the annual Animal Control Officer's Workshop.

"Dr. MacInnis has been extremely valuable to the College in the area of public service, particularly as a producer/practitioner consultant on prevention and management of swine health problems," said Dr. Roberta Minish, assistant dean. "He has contributed much to the developing College and he will be missed."

Farewell and best wishes, Dr. Gordon "Mac" MacInnis. -- Mary L. Mitchell, Information Officer; News Memo; Virginia-Maryland Regional College of Veterinary Medicine; Virginia Tech; Blacksburg, Virginia; December 1982.

(Editor's Note: "Mac" was last seen entering his basement workshop where he fashions beautiful wood furniture for friends. He is an expert cabinetmaker and hopes to catch up on the backlog of orders now that he has more time for his avocation.)



### CONTAGIOUS EQUINE METRITIS (CEM)

Contagious equine metritis (CEM) appeared for the first time in the United States during 1978, arriving with two Thoroughbred stallions imported from France to two premises in central Kentucky. Mares bred to these stallions developed the disease. CEM was brought under control through State and Federal quarantines, therapeutic treatment, and management. CEM occurred again during 1979 in central Missouri in a stallion and 10 mares of the Trakehner breed. The disease was eradicated in Missouri.

In 1982, a streptomycin-resistant strain of the CEM bacterium was isolated from three Thoroughbred mares, following breeding by the stallion "J. O. Tobin" in central Kentucky. Since this disclosure, no additional cases have been found by complement-fixation testing of 5,000 serum samples and 1,000 cultural examinations of mares. No clinical signs were seen in these mares except shortened estrual cycles. -- Foreign Animal Disease Report; United States Department of Agriculture; June 1982; No. 10-1.

### SUCCESS IS NO ACCIDENT

Misunderstandings can develop rather easily in the close confines of a veterinary practice. When they do, people can get angry, emotionally upset, dissatisfied, and thoroughly unhappy. Consequently, the practice's effectiveness suffers; its harmony is lost.

One way to minimize misunderstandings is to have contingencies in black and white. Written policies, contracts, and understandings with ALL practice employees help to let everyone know the rules. These rules should not change arbitrarily but should provide a sound basis for working out daily management problems.

Take the time to write down contingencies before misunderstandings develop. -- Kent C. Roberts, D.V.M., Director of Continuing Education; Virginia-Maryland Regional College of Veterinary Medicine; Virginia Tech; Blacksburg, VA.

## HERD HEALTH CONSIDERATIONS WHEN USING EMBRYO TRANSFER

Recently, I have been involved with beef herds experiencing health problems due to the introduction of embryo transfer recipient cows into their formerly semiclosed herds.

A beef cow herd which has previously had no outside exposure to certain bacteria and/or viruses is a susceptible population of cows. If a closed or semiclosed herd has not previously experienced certain disease conditions, the cows have probably not been vaccinated for these diseases. Thus, if we do not have outside natural exposure to disease nor vaccination against disease, we have a herd that is extremely susceptible to disease. Herd additions from an outside source which are carriers of a bacteria and/or virus brought to a susceptible herd can lead to disastrous results.

Presently the embryo transfer tool is being utilized more frequently. Usually, this process involves transferring embryos from the established herd's cows to recipient cows that have been purchased from various sources. Often, these recipient cows are less expensive, open cows that have been purchased through auction markets or some similar means where they have been mixed with or exposed to cattle that may be carrying any number of problems.

To reduce the possibility of these disease conditions causing a problem in a herd where embryo transfer is being employed, the following recommendations are made:

1. Institute a complete vaccination program in the established herd.
2. Isolate all recipient herd additions and retest for Brucellosis after arrival.
3. If possible, know the herd history and vaccination program for the recipient cows.

If you have clients that are presently using embryo transfer or are contemplating using this technique, the above information may be quite useful in avoiding a disease outbreak in a previously trouble free herd. -- Jay R. Brown, D.V.M., Beef Extension Veterinarian; University of Illinois College of Veterinary Medicine; as reported in Capsules; College of Veterinary Medicine Cooperative Extension; Oklahoma State University; January 1983; No. 7.



## NEW STATES WITH CONFIRMED VESICULAR STOMATITIS (VS)

On December 2, 1982, the National Veterinary Services Laboratories (NVSL) reported serum neutralization titers of 1:256 and 1:512 as well as one complement fixation (CF) positive on serum submitted from animals located on the Jerry Gall premises in New Boston, Linn County, Missouri. This owner had purchased 17 adult cows from the Hillside Dairy, Pueblo, Colorado, which held a dispersal sale on October 12, 1982. Animals in the Gall herd have shown clinical signs of vesicular stomatitis, and the neutralization tiers were found in both the purchased and local animals.

Also, on November 26, 1982, NVSL reported CF titers and neutralization titers for New Jersey Type VS in serum samples submitted from the Pete Vanderhan premises in Chico, California. Mr. Vanderhan had also purchased animals at the Hillside Dairy.

These two new States, California and Missouri, bring the total to 12 States where vesicular stomatitis investigations have been confirmed by NVSL. The other 10 States are Colorado, Wyoming, Utah, Idaho, New Mexico, Arizona, Montana, Nebraska, South Dakota, and Washington. -- G. J. Fichtner, Regional Director - Northern Veterinary Services; United States Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services; Northern Regional Office; Scotia, New York; December 10, 1982.

## PRACTICE TIPS

Observe and know what's going on "out front" in your practice; you can't afford to ignore this critical area of your operation.

Practices have both a medical side and a business side. They are separate and distinct, yet both require thought and effort.

Stop ringing telephones! Reduce the stress level by having phones with a low buzz.

Program telephones to "re-ring" after being on "hold" for a preset number of seconds or minutes.

Visit another veterinary practice once a month. Put it on your schedule and keep to that schedule!

Switch technicians with those in another practice for a day or a week. This exchange should benefit everyone.

Put a mirror where your receptionist has to look at it frequently. He or she should learn to smile often and this smile will come across to clients -- even over the phone.

Cross-train your employees. Doing so makes your practice more efficient and makes your employees' jobs more interesting. -- Dr. Bob Brown; Practice Management Seminar; Norfolk, VA; November 1982.

#### TB HERDS SLAUGHTERED

Four multiple-owner herds (totaling about 2100 head of cattle) in Cameron Parish, Louisiana, were slaughtered to eliminate recurring infections of tuberculosis. Two other herds are under quarantine. TB has been difficult to eradicate in this area because cattle owned by many persons are often wintered on common pastures.

The quarantined herds will be tested at 60-day intervals and positive reactors removed. A herd is released from quarantine when found negative on two consecutive tests and again 6 months later. The herd will then be tested annually for five years.

Seven infected and four exposed herds were found nationwide during the fiscal year ending September 30. In addition to the two quarantined herds in Louisiana, a herd in California is under quarantine. -- Livestock Conservation Institute; Newsletter; December 1982.

#### MEETINGS

February 17-20, 1983	V.V.M.A. Annual Meeting Hyatt House Richmond, Virginia
April 8-9, 1983	Orthopedic Short Course Virginia Tech Blacksburg, Virginia
April 19-21, 1983	Mid-Atlantic States Avian Medicine Seminar Atlantic City, New Jersey



## ABOMASAL IMPACTION

Every winter a substantial number of cattle, sheep and goats are lost due to abomasal impactions. When clinical signs become apparent, treatment is often to no avail. With the high prices of animal feeds, owners often try to partially substitute into the ration poorer quality roughages in order to offset the high costs. Resultantly the animal often over-feeds in order to try to satisfy energy.

Pregnant animals are particularly susceptible since their energy requirements are much higher. As a result of the often poorly digestible roughage, large amounts of material tend to accumulate in the abomasum, unable to pass, forming a partial to total obstruction. Fluid content of the mass is low and a hard inspissated mass results. Chopped hay or straw are particularly bad since there is rapid transit of these from the rumen to the abomasum with little digestive breakdown.

Clinically, the animal is presented off feed, the feces are scant and wasting is evident. The rumen is atonic and is often packed with ingesta or fluid filled. Biochemically the animal is in serious trouble. Because of the pyloric obstruction, electrolytes and fluid fail to reach the intestine for absorption. Hydrochloric acid and potassium continue to be secreted by the abomasum leading to a total body deficit and a hypochloremic, hypokalemic metabolic alkalosis. With the failure of fluid passage down the digestive tract, dehydration is usually present. Death results from dehydration, electrolyte imbalance and the possibility of abomasal ulceration and diffuse peritonitis.

Diagnosis is made from history of poor quality feed intake followed by anorexia, scant feces, rectal examination and laboratory methods. Treatment is often unrewarding and immediate slaughter should be considered in those animals critically ill. Medical treatment involves the correction of fluid and electrolyte imbalances. Lubricants or cathartics are given by stomach tube along with warm water. Dioctyl sodium sulphosuccinate (DOSS), should be included in the oral mixture in an attempt to soften the impacted mass. Oral treatment should be continued for several days along with continuing supportive care.

Surgical treatment involves a rumenotomy with removal of excessive rumen material and the administration of lubricants and DOSS into the abomasum through the reticulomasal orifice in an attempt to soften and lubricate the mass. Alternatively a right paramedian approach can be made to the abomasum itself and an abomastomy performed. The results are often unrewarding, probably because of abomasal atony which exists.

Prevention of the disease should be our goal by providing adequate energy to animals in a usable form and increasing the amount during times when energy requirements are increased. When poor quality roughages are to be fed, they should be analyzed for digestible energy and crude protein levels. Any deficiency found should be countered with an additional source of energy and protein such as grain. Sources of non-protein nitrogen can also be useful. Therefore, during the coldest times of the winter when the energy requirements are greatest, low quality roughages must be supplemented to meet energy needs,

prevent over-consumption and avoid the possibility of abomasal impaction. -- Steve Parris, D.V.M.; Washington State University; 1980; as reported in Veterinary Medicine Newsletter; University of Florida; December 1982.

#### FOOT-AND-MOUTH DISEASE OUTBREAK -- DENMARK

Veterinary Services was notified on January 13, 1983, by the Chief Veterinary Officer of Denmark and the U.S. Agricultural Counselor that a suspicious vesicular investigation was underway at Fraugde, near Odense, on the island of Funen in Denmark. They reported that specimens had been forwarded to their laboratory. Late in the day on January 13, 1983, Veterinary Services was informed by the Agricultural Counselor in Denmark that the case was confirmed foot-and-mouth disease, Type O.

The initial herd consists of 72 head of cattle and 123 head of swine. Information to date indicates only teat lesions in the involved cattle; the swine were not clinically affected. All animals in the initial herd will be slaughtered and buried. The farmer who owns the initial herd has another herd in the same vicinity. Although the animals in this herd are not showing signs of foot-and-mouth disease, they will be slaughtered and buried due to contact with the initial herd.

Please report this information to your cooperating State officials and colleges of veterinary medicine. -- G. J. Fichtner, Regional Director - Northern Inspection Service, Veterinary Services; Northern Regional Office; Scotia, New York; January 17, 1983.

#### VIRGINIA SHEEP FLOCK DESTROYED BECAUSE OF SCRAPIE

Washington, December 29 -- A flock of 43 sheep near Mt. Jackson, Virginia, has been destroyed to eradicate scrapie, a virus disease of sheep and goats, a U.S. Department of Agriculture official reports.

Dr. Jack R. Pitcher, a veterinarian with USDA's Animal and Plant Health Inspection Service, said the disease was confirmed last month after a Suffolk ewe showed clinical signs of scrapie -- poor condition, unsteady gait, and rubbing and scratching to relieve intense itching.

Pitcher said the disease is caused by a slow-acting virus whose transmission appears to be associated with certain bloodlines of sheep and goats. It affects the nervous system and can take from 18 months to 3 years to cause clinical signs to appear. Scrapie is virtually always fatal to the infected animal.



The diagnosis was confirmed at APHIS National Veterinary Services Laboratories by examination of the sheep's brain.

This is the second scrapie-infected flock reported in the fiscal year beginning October 1. A flock of 354 infected sheep was destroyed in November near Hico, Texas -- APHIS News; United States Department of Agriculture, Animal Plant Health Inspection Service; Washington, D.C.; December 29, 1982.

#### SOUTHAMPTON COUNTY VETERINARIAN HONORED BY VIRGINIA'S PORK INDUSTRY

A Southampton County veterinarian was chosen to receive the Virginia Pork industry's highest service award at the annual Pork Conference Dec. 6-8.

Mike C. Chesson of Ivor has been associated with the swine industry for approximately 25 years. He has provided outstanding leadership in both the Virginia Pork Industry Association and Virginia Pork Commission. A member of the Virginia Pork Commission from 1972-80, Chesson served as chairman of the organization for two terms.

He received his bachelor's degree from Virginia Tech and his doctor of veterinary medicine degree from the University of Georgia in 1957.

A popular swine practitioner, Chesson has clients throughout Virginia and has encouraged swine producers to become more involved in the affairs of their industry.

Chesson has held leadership roles in several organizations including year-long terms as president of the Virginia Pork Industry Federation, the Virginia Veterinary Medical Association and the Ivor Ruritan Club.

He also holds membership in the American Veterinary Medical Association, the Tidewater Veterinary Medical Association, the American Association of Swine Practitioners and the Christian Veterinary Mission. He is presently Sunday School director at Ivor Baptist Church and has held the offices of deacon and chairman of the board of deacons.

To recognize his contributions to Virginia's pork industry, Chesson was awarded a custom-made wooden hog plaque during award ceremonies at the Pork Conference. -- Extension Information Office; VPI & SU; Blacksburg, VA; December 15, 1982.

## OPHTHALMOLOGY REFERRAL SERVICE

Veterinary ophthalmologist, Mark Nasisse, has joined the clinical faculty of the Veterinary Medical Teaching Hospital at the Virginia-Maryland Regional College of Veterinary Medicine.

Dr. Nasisse, a graduate of the College of Veterinary Medicine at Kansas State University and a Diplomate of the American College of Veterinary Ophthalmology, is currently in the final year of a residency in veterinary ophthalmology at the University of Tennessee.

Dr. Nasisse will see referral cases at the Teaching Hospital in Blacksburg on the third Thursday of each month. To refer an ophthalmology case, contact Dr. Joe Alexander, Coordinator of Surgical Services, or Dr. John August, Coordinator of Medical Services, at (703) 961-4621.

## WE NEED YOUR HELP

There is a critical need for pre-veterinary students to obtain work experience with practicing veterinarians in Maryland and Virginia. Veterinary College admission requirements place emphasis on experience with animals in both farm and clinical settings. This appeal is particularly for summer work experience -- June through August -- in any location, but also for prospective cooperators year-round within an hour's drive from Blacksburg.

If you can provide an opening, with or without pay, for a Virginia Tech student in your practice, please contact the individuals listed below:

Dr. Lewis Barnett, Chairman

or

Dr. Patrick Murphy, Secretary  
Pre-Vet Advisory Committee

Virginia Tech  
222 Patton Hall  
Blacksburg, Virginia 24061  
(703) 961-6557

## THOUGHT FOR THE MONTH

Competition of ideas is fundamental to a free society.



## SURVEY OF VIRGINIA VETERINARIANS

Dear Doctor:

The following brief survey is designed to help those of us involved in training animal technicians in Virginia to evaluate the present status of this field and how we can improve our training programs.

Please take a few minutes of your time to fill it out and return it to: Dr. Stuart L. Porter; Blue Ridge Community College; Box 80; Weyers Cave, VA 22846.

Thank you very much.

SURVEY OF VIRGINIA VETERINARIANS  
1982

1. DESCRIBE YOUR TYPE OF PRACTICE:
  1.  Small
  2.  Mixed
  3.  Equine
  4.  Large Animal
2. DESCRIBE THE SETTING IN WHICH YOUR PRACTICE IS LOCATED:
  1.  Urban
  2.  Suburban
  3.  Rural
3. HOW MANY FULL-TIME VETERINARIANS ARE IN YOUR PRACTICE?
  1.  One
  2.  Two
  3.  Three or More
4. HOW MANY CERTIFIED ANIMAL TECHNICIANS (CATS) ARE EMPLOYED IN YOUR PRACTICE?
  1.  None
  2.  One
  3.  Two
  4.  Three or More
5. WHAT TYPE OF EDUCATION DO(ES) YOUR ANIMAL TECHNICIANS POSSESS? (Number of checks should equal number of CATS employed.)
  1.  Blue Ridge Community College Graduate
  2.  Northern Virginia Community College Graduate
  3.  Out of State School Graduate
  4.  Grandfather Clause
  5.  Other Please describe: \_\_\_\_\_
6. IN YOUR PRACTICE, WHAT IS THE ENTRY LEVEL YEARLY SALARY FOR A CAT WHO IS EMPLOYED FULLTIME?
 

1. <input type="checkbox"/> \$ 6,000- 6,999	6. <input type="checkbox"/> \$11,000-11,999
2. <input type="checkbox"/> \$ 7,000- 7,999	7. <input type="checkbox"/> \$12,000-12,999
3. <input type="checkbox"/> \$ 8,000- 8,999	8. <input type="checkbox"/> \$13,000-13,999
4. <input type="checkbox"/> \$ 9,000- 9,999	9. <input type="checkbox"/> \$14,000-14,999
5. <input type="checkbox"/> \$10,000-10,999	10. <input type="checkbox"/> \$15,000-15,999
7. WHAT BENEFITS DO(ES) YOUR CATS RECEIVE?
 

1. <input type="checkbox"/> Over-time Pay	2. <input type="checkbox"/> Life Insurance
3. <input type="checkbox"/> Hospitalization	4. <input type="checkbox"/> Paid Vacation
	a. <input type="checkbox"/> 1 Week
	b. <input type="checkbox"/> 2 Week
	c. <input type="checkbox"/> 3 Weeks or More

8. PLEASE CHECK THE FOLLOWING DUTIES PERFORMED BY YOUR ANIMAL TECHNICIAN INDICATING THE APPROPRIATE FREQUENCY. IF YOUR CAT HAS NOT RECEIVED SUFFICIENT EDUCATION IN ANY OF THESE AREAS, PLEASE CHECK THE DEFICIENT COLUMN.

	Always (100%)	Frequently (50-99%)	Often (26-49%)	Occasionally (1-25%)	Deficient
Reception					
Animal Cleaning					
Fecal Exams					
Heartworm Checks					
CBC					
Microbiology					
Urinalysis					
Blood Chemistry					
Cytology					
Anesthesiology (Inducing/Monitoring)					
Radiology					
Teeth Cleaning					
Tattooing					
Bathing/Dipping					
In-hospital Treatments					
Vaccinations					
Client Education					
Physical Exam During Appointment					
Surgical Preparation of Patient					
Blood Collection					
IV Catheterization					
Suture Removal					
Surgical Assisting (Scrub-in)					
Bandaging					
Splint/Cast Application					
Drug & Supply Ordering					

9. WHICH OF THE FOLLOWING TASKS WOULD YOU LIKE YOUR CAT TO BE ALLOWED TO PERFORM, IF ALLOWED BY THE LAW?

- 1.  Suturing wounds
  - 2.  Administration of rabies vaccines
  - 3.  Blood sample collection for regulatory testing (i.e., Brucellosis)
  - 4.  Tuberculosis testing
  - 5.  Farm call by themselves (i.e., radiology, vaccinations)
  - 6.  Routine farm surgery (i.e., dehorning, castration)
  - 7.  Routine small animal surgery (i.e., feline castration)
  - 8.  Initiate standard emergency procedures if VMD cannot be reached (i.e., IV drip)
10. IF YOU CHECKED ANY OF THE ABOVE TASKS, DO YOU BELIEVE THAT SCHOOLS MUST THEN OFFER ADDITIONAL TRAINING IN THESE AREAS?  
 1.  Yes      2.  No
11. DO YOU BELIEVE THAT A CAT SHOULD BE ALLOWED TO WORK ONLY WITH A LICENSED VETERINARIAN ON THE PREMISES UNDER "DIRECT SUPERVISION"?  
 1.  Yes      2.  No

12. COMMENTS:

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## OVARIAN CYSTS IN DAIRY CATTLE

Ovarian cysts in dairy cattle are generally defined as follicular structures of at least 2.5 cm in diameter that persist for at least 10 days in the absence of a corpus luteum. The incidence of ovarian cysts has been reported to be from 6 to 19% and, therefore, cystic ovarian disease is a serious cause of reproductive failure in dairy cattle.

There have been several different hypotheses about the cause of ovarian cysts. After monitoring postpartum cows that spontaneously developed ovarian cysts and postpartum cows with or without ovarian cysts administered estradiol benzoate, the authors have suggested that postpartum ovarian cysts developed when the hypothalamus and pituitary appeared to be less responsive in releasing luteinizing hormone (LH) under the influence of estradiol. Spontaneous re-establishment of ovarian cycles occurred in about 60% of the cows that developed ovarian cysts before the first postpartum ovulation. In contrast, only about 20% of the cows that developed ovarian cysts after the first postpartum ovulation spontaneously re-established ovarian cycles. The authors have also reported that even if ovarian cycles are not re-established, ovarian cysts may regress, but only in the presence of follicular development, which subsequently develops into ovarian cysts.

Investigators have shown that 40 to 80% of the cows with ovarian cysts re-established ovarian cycles following treatment with products high in LH activity. Gonadotropin releasing hormone (GnRH), which stimulates re-establishment of ovarian cycles in about 80% of the cows treated, has more recently been recommended as a treatment for ovarian cysts. The GnRH-induced LH surge appears to stimulate luteinization of the ovarian cyst wall. Cows then exhibit estrus about 21 days following GnRH treatment. The conception rate at the first estrus after GnRH treatment to estrus has been reduced by administering prostaglandin  $F_2$  ( $PGF_2$ ) 9 days after GnRH. The  $PGF_2$  appears to regress the luteinized ovarian cysts and cows exhibit estrus 2 to 3 days after  $PGF_2$  treatment (11 to 12 days after GnRH).

Gonadotropin releasing hormone has also been used to reduce the incidence of ovarian cysts in postpartum cows. To be effective in reducing the incidence of ovarian cysts, GnRH should be administered about 2 weeks postpartum. However, cows may have a predisposition for cystic ovarian disease, and treatments, therefore, are only temporary solutions. A better alternative would probably be to select against ovarian cysts. -- D. J. Kesler and H. A. Gaverick, summary of a literature review in Journal of Animal Science; November, 1982; Nebraska Veterinary Extension Newsletter; Department of Veterinary Science; University of Nebraska-Lincoln; February, 1983.

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