AVEPM is committed to developing and fostering the academic base for veterinary epidemiology and preventive medicine

Visit the AVEPM Web site at...

http://www.cvm.uiuc.edu/avepm/

President - Dr. Margaret R. Slater
Dept. of Veterinary Anatomy & Public Health
College of Veterinary Medicine
Texas A&M University
College Station, TX
mslater@cvm.tamu.edu

President-Elect - Dr. Laura Hungerford
Dept of Epidemiology & Preventive Med
Univ of Maryland School of Medicine
Baltimore, MD 21201
lhungerf@epi.umaryland.edu

Secretary/Treasurer - Dr. James Thorne
3310 Cheavens Rd
Columbia, MO 65201-9383
atvphpm@tranquility.net

ATVPHPM Newsletter Editor - Dr. Ronald D. Smith
Department of Veterinary Pathobiology
College of Veterinary Medicine
University of Illinois
Urbana, IL
rd-smith@uiuc.edu
IN THIS ISSUE

ASSOCIATION NEWS ........................................................................................................3
  AVEPM President's Message..........................................................................................3
  How to Contact AVI......................................................................................................3
THE CALVIN W. SCHWABE AWARD...........................................................................4
INTERNET RESOURCES...............................................................................................5
  FSWEBSITE Now Available...Searchable Foodborne Outbreak Database For Years 1990-95........5
  Foodborne Illness Cost Calculator..............................................................................5
NEWS & COMMENTARY.................................................................................................6
  Carcass Disposal - Novel Solution! .............................................................................6
  Pork Industry Growth & Manure Problem in U.S.A.....................................................6
  Disease Epidemics - Controlling Risks and Costs......................................................6
  FSIS to Hold Public Meeting on Use of Epidemiology to Protect Public Health...........8
  Calls for Review Articles for Animal Health Research Reviews...............................8
  Request for References and Resources for ACVPM Board Examination Preparation....8
  What is Norwalk Virus? - Updated.............................................................................9
MEETINGS, WORKSHOPS & COURSES.......................................................................10
  TSE in Animal Populations – Fact and Fiction - An International Conference...............10
POSITIONS....................................................................................................................11
  Please visit the AVEPM Web site at http://www.cvm.uiuc.edu/avepm/ for the most current listings......11
SUGGESTED READING...................................................................................................11
  Pathogen Survival in Swine Manure Environments and Transmission of Human Enteric Illness - A Review....11
  Robert Wood Johnson Foundation Young Epidemiology Scholars Competition............11
  USDA's Animal and Plant Health Inspection Service Publishes Annual Veterinary Services' Report........12
  Animal Disease Surveillance and Survey Systems: Methods and Applications....................12

Important: Please take a moment to look at your mailing label on the envelope. The number (e.g. 02) in the lower right corner of the mailing label is the last year for which a dues payment has been recorded. Membership dues are $20 US annually and are payable to ATVPHPM on January 1 of each year. If, for example, your dues payment year is indicated to be 01, then to become current you should remit two years dues or $40. The AVEPM Constitution and By-Laws require that members two years in arrears in payment of dues shall be dropped from membership (Article VIII)
AVEPM President's Message

Hello Everyone,

Hope you are looking forward to your summer even though it seems to be a time to try and catch-up with all we didn’t get done yet this year.

Our 2002 elections were a bit late this year but I appreciate the willingness of our candidates to run and the members to vote! It was a very close election but Paul Morley and H. Morgan Scott are our two new Members-at-Large. I want to thank Tom Wittem and Laura Hungerford for their previous service in those positions. Laura is now the President-Elect and will assume the office of President at the November CRWAD meeting. Jim Thorne once again agreed to run unopposed as Treasurer—thanks Jim for keeping us on the straight and narrow.

Elections for 2003 will be coming up before you know it, so consider running for office! We will be needing a new President-Elect and another Member-at-Large. Laura Hungerford has agreed to continue for another year as the chair of the nominating committee. Contact her if you would like to run or nominate someone!

With both CRWAD and ISVEE in November, this fall will be a very busy time. I know many are planning to go to Chile and as a result may miss the CRWAD meeting, myself included. I hope that both meetings will be successful—I know I always enjoy the chance to hear what colleagues are doing, the challenges of teaching epidemiology and generally catching up with what everyone is doing.

If your email address has changed or you have never received an email from me, please let me know (mslater@cvm.tamu.edu). I am the current keeper of the most current email address list for organizational use.

Margaret Slater

How to Contact AVEPM

Applications for membership, accompanied by a check for $20 payable to the AVEPM, should be sent to:

Dr. James Thorne, Secretary/Treasurer, AVEPM
3310 Cheavens Rd
Columbia, MO 65201-9383

Phone: 573/443-0157
FAX: 573/884-5050
E-mail: atvphpm@tranquility.net

Membership application forms are available online at:

http://www.cvm.uiuc.edu/avepm/

Newsletter items can be sent to:

Dr. Ronald D. Smith, Newsletter Editor, AVEPM UI College of Veterinary Medicine
2001 South Lincoln Ave
Urbana, IL 61802.

Phone: 217/333-3290
FAX: 217/244-7421
E-mail: rd-smith@uiuc.edu

Current and past issues of the AVEPM Newsletter are also available online at:

http://www.cvm.uiuc.edu/avepm/
At the 2002 Conference of Research Workers in Animal Diseases, the Association for Veterinary Epidemiology and Preventive Medicine (AVEPM)* sponsored a special symposium to honor Dr. Calvin Schwabe for his lifetime achievements and contributions to veterinary preventive medicine. This symposium titled “One Medicine for the Future” featured lectures presented by Dr. Marguerite Pappaioanou from the U.S. Centers for Disease Control and Prevention, Dr. Wayne Martin from the University of Guelph, Dr. Mo Salman from Colorado State University, Dr. Lonnie King from Michigan State University, and a keynote address from Dr. Schwabe. In recognition of his substantial contributions to the discipline, the AVEPM presented Dr. Schwabe with a bronze sculpture and announced that this annual lifetime achievement award would thereafter be renamed the “Calvin W. Schwabe Award Recognizing Lifetime Achievement in Veterinary Epidemiology and Preventive Medicine.”

Dr. Schwabe is Professor Emeritus at the University of California at Davis. He was awarded his veterinary degree with highest honors in 1954 from Auburn University. He received a Masters of Public Health degree as well as his doctorate in parasitology from Harvard University. As a faculty member at the American University of Beirut, Dr. Schwabe guided the foundation of the Department of Tropical Health in 1957 and the Department of Epidemiology and Biostatistics in 1962. In 1966, Dr. Schwabe helped establish at the University of California at Davis the first Department of Epidemiology within a school of veterinary medicine. He has been one of the most influential people in modern veterinary epidemiology, and his view of an integrated medicine continues to inspire veterinarians and public health specialists from around the world. Dr. Schwabe is an editor and contributing author several texts including the very influential Veterinary Medicine and Public Health. In addition, his research on the biology and control of hydatid disease

This symposium was made possible through generous financial assistance from Bayer Animal Health, M.D. Salman, and H.N. Erb.

*AVEPM was formerly known as the Association of Teachers of Veterinary Public Health and Preventive Medicine.
The Calvin W. Schwabe Award recognizing lifetime achievement in veterinary epidemiology and preventive medicine. The sculpture represents Chiron the Centaur, who educated Aesculapeus, the mythological founder of veterinary medicine.

**INTERNET RESOURCES**

**FSWEBSITE Now Available...Searchable Foodborne Outbreak Database For Years 1990-95**

CDC's Foodborne and Diarrheal Diseases Branch has updated the Foodborne Outbreak Response and Surveillance Unit website to provide a searchable database of data from 1990-1995.

Foodborne Outbreak Response and Surveillance Unit website: http://www.cdc.gov/foodborneoutbreaks/

Searchable database: http://www2.cdc.gov/ncidod/foodborne/fbsearch.asp

**Foodborne Illness Cost Calculator**

This interactive web-based tool allows users to estimate the cost of foodborne disease, using a variety of assumptions about the costs of treating foodborne illness, the value of lost productivity and premature death, and the number of cases of disease. There are several different approaches to determining the costs associated with illness - and several different approaches are used by Federal food safety regulators. The Foodborne Illness Cost Calculator allows users to examine the assumptions behind the different approaches and to perform a side-by-side comparison of the cost estimates generated by each approach. The goal of the Foodborne Illness Cost Model is to make the calculations behind Federal Cost-Benefit and Regulatory Impact Analyses more transparent and to improve food safety policy.

See http://www.ers.usda.gov/data/foodborneillness/


**NEWS & COMMENTARY**

**Carcass Disposal - Novel Solution!**

Kris Kohl, an agricultural engineer with the Iowa State University Extension Service, USA, is recommending alligators as a low cost and convenient (?) way of disposing of pig carcasses. Alligator meat and hides can also, he says, provide a useful second income for hog farmers. He is currently trying out his idea with two 4-foot alligators on one of their research farms.  

Report: www.kicdam.com/NewsDetail13.cfm?id=4,3790  
Alligator farming: http://edis.ifas.ufl.edu/AC002

**Pork Industry Growth & Manure Problem in U.S.A.**

The Reuters news agency reported that Smithfield Foods Inc. is to be the major partner in BEST BioFuel which is building a 20 million dollar site in Utah that will use the manure from 500,000 hogs to make biodiesel - a renewable fuel for vehicles. Biodiesel can be made from any fat, including vegetable oil and used cooking oil.  

Fifteen million gallons of it were used in the United States last year. The announcement follows on the heels of new manure control regulations signed by the U.S. Environmental Protection Agency (EPA) on December 15th 2002 and expected to be implemented in 2003.  


**Disease Epidemics - Controlling Risks and Costs**


March 17, 2003!—!Michael Meredith

Two retrospective analyses, just published, shed new light on the art of controlling risks and costs during disease epidemics.

FMD Epidemic of 2001 - costs and lessons

* Cost sources

The Public Accounts Committee of the United Kingdom Parliament has produced a final report on the cost of the 2001 epidemic of foot and mouth disease in the UK. The total cost to public funds was 3.03 billion GB pounds (4.8 billion USD). Additional costs to the private sector were estimated at over 5 billion GB pounds (over 8 billion USD). Tourism and supporting industries suffered the largest financial impact, losing revenues of between 4.5 billion and 5.4 billion GB pounds.

Agriculture, the food chain and supporting services incurred net costs after compensation of 0.6 billion GB pounds (0.95 billion USD).

* Control of farmer compensation

Farmers received nearly 1,400 million GB pounds (2,218 million USD) in compensation and other payments (e.g. costs of disinfection) for their slaughtered animals. The assessed values of animals rose threefold during the crisis, and with no functioning markets, the government lacked a clear frame of reference to assess or influence the valuations against which compensation was paid. The government allowed potential recipients of compensation to select and appoint the supposedly independent valuers of livestock. Systems of compensation to farmers for slaughtered animals should give farmer control over the amounts paid. Better benchmarks are needed for determining the rates paid for animals when markets are suspended. Potential recipients of compensation should not be allowed to appoint the valuers.

* Under-scaling of contingency plans

The government based its contingency plans for foot and mouth disease on the assumption that up to ten premises would be infected at a time. In the event, however, at least 57 premises were infected by the time the first case was diagnosed. The plans did not consider any other scenarios, such as a worst case scenario or one based on the last big outbreak in 1967-68.

* Need for holistic approach

The UK government's contingency plans were directed solely at the agriculture industry. Yet the tourism industry suffered much more than any sector. Contingency plans should not only address farming but also the difficulties likely to be experienced by other industries. Stakeholders in potentially affected industries should be fully consulted about contingency plans and should participate in the simulation exercises carried out to test them.

* Wide and flexible control options

Emergency vaccination was not used during the 2001 outbreak but the UK Government and European Union have announced that the option of vaccination will be part of future strategies for the control of foot and mouth disease.
* Speed and resourcefulness of control measures

The Public Accounts Committee criticise the government for not imposing a national ban on animal movements from the first day of the epidemic [this seems a rather harsh judgment, given that the vast bulk of the country was uninfected at that time and that the chaos, cost and logistical drain of such an unfocussed panic measure is enormous - MJM]. They also point out that the army and senior administrators should have been brought in earlier to take charge of local disease control and that carcasses should not have been disposed of on mass funeral pyres. There was a failure to implement lessons learned from the 1967-68 FMD epidemic.

* Excessive disruption of rural life and economy

The Committee say that countryside paths should have been kept open - blanket closure of footpaths for such a long time was an excessive and costly measure.

* Control of contractor costs

The UK government was in a weak negotiating position and had to pay a premium to get things done at maximum possible speed. The Committee says that government should negotiate pre-arranged rates and fees for goods and services, which could be brought quickly into use in the event of a future outbreak. Claw-back arrangements should be in place to prevent firms making excessive profits at the government's expense. A list of approved contractors should be drawn up, and kept up to date, and the capabilities of firms to carry out contracted tasks should be tested in simulation exercises.

* Control of infection risk (from imported meat and animals)

The Committee says that government should ensure that the measures adopted in the United Kingdom are at least the equal of those elsewhere in the developed world, including Australia, New Zealand and the United States.

* Provision of contingency resources

An internal UK government Report in 1999 expressed concern that a rapid spread of foot and mouth disease could quickly overwhelm the State Veterinary Service's resources, particularly if a number of separate outbreaks occurred at the same time. The government had responded to many of the Report's findings but had not resolved a number of key issues, including the slaughter and disposal of carcasses, training of staff, and updating of existing contingency plans.

* Cultural obstacles

The Public Accounts Committee concluded that many of the MAFF/DEFRA (agriculture department) difficulties in handling the epidemic reflect a narrow outlook and lack of contextual (holistic and situational) awareness. They recommend that the government build's stronger partnerships with relevant bodies in both the public and private sectors, so as to make better use of their expertise and resources. They state that longstanding attitudes are in need of reform, and that the department's new development programme for senior managers will need to be radical if the necessary change of outlook is to be achieved.

UK Hog Cholera Outbreaks in 2000 - risks overview

The Animal and Plant Health Inspection Service of the USDA has published a useful retrospective risk assessment in relation to the 16 outbreaks of hog cholera (classical swine fever, CSF) in the U.K. in 2000. Drawing on the experience of their UK colleagues in MAFF, they identified the following risk factors:

* Time to initial diagnosis

There was an unfortunate delay in detecting that CSF had entered the country due partly to a concurrent regional epidemic of PMWS/PDNS and partly to the fact that the CSF strain was unusually mild in its clinical effects and serum antibodies developed rather later than expected.

* Biosecurity weaknesses

Most of the swine farms in the affected area have outdoor units with the potential for members of the public to contact the livestock. A public footpath running adjacent to the index case may have resulted in infected food being given to the pigs first affected.

The owner of one infected farm was also a truck driver visiting other farms and may well have spread the virus.

Sick and dying pigs were placed too close to healthy animals.

Weblinks:


FSIS to Hold Public Meeting on Use of Epidemiology to Protect Public Health

April 14, 2003
American Meat Institute Media Release
http://www.meatami.com/

USDA's Food Safety and Inspection Service (FSIS) will hold a public meeting on April 29, 2003, to discuss the use of epidemiological data, principles, techniques and other tools to help achieve its public health goals. The meeting will serve as an open forum to discuss the Agency's approach to investigations of foodborne illnesses associated with meat, poultry and egg products and the progress the Agency has made using epidemiology as a basis for regulatory decision making. Agenda items will include: a description of how FSIS responds to epidemiological evidence; how the Agency uses that evidence; how the Agency conducts food safety investigations; and how regulatory actions are initiated.

Calls for Review Articles for Animal Health Research Reviews

Dear CRWAD Members,

Animal Health Research Reviews (ARHH), the official journal of the Conference of Research Workers in Animal Diseases (CRWAD), was initiated in 2000. The success of the journal means we would like to increase publication to 3 issues per year.

CRWAD has added Keynote addresses to each of our CRWAD sections, and we wish to see these Keynote addresses published as reviews in AHRR.

Understanding disease in animals is vitally important in today's uncertain climate. Global health and security concerns are not limited to just human disease, but encompass all aspects of human activity. Agriculture is amongst the most significant of these activities. The more information we have, the better decisions we can make to safeguard our future.

We encourage you to share the fruits of your research by submitting ideas for reviews to the Editor, Carlton Gyles <cgyles@ovc.uoguelph.ca>.

You can find information concerning the scope of AHRR, guides to authors and the contents of previous issues from the CRWAD home page <http://www.cvmbs.colostate.edu/microbiology/crwad/crwad.htm> or from the CABI Publishing website <http://www.cabi-publishing.org/journals/ahrr>.

We encourage you to support Animal Health Research Reviews by submitting review articles in your area(s) of expertise.

With best wishes

Kathy Kocan, President CRWAD
Robert Ellis, Executive Director CRWAD
Carlton Gyles, Editor-in-Chief, AHRR

Description of Animal Health Research Reviews
Aims and Scope: Animal Health Research Reviews provides an international forum for the publication of reviews and commentaries on all aspects of animal health. The journal covers all facets of animal health and science, including but not limited to both infectious and non-infectious diseases in domestic and wild animals.

Major subject areas include:
* Physiology and Pharmacology
* Parasitology
* Bacteriology
* Food and Environmental Safety
* Epidemiology
* Virology

Abstracting / Indexing: Animal Health Research Reviews is covered in CABI ABSTRACTS and Index Medicus® (MEDLINE®)

Robert.Ellis@colostate.edu

Request for References and Resources for ACVPM Board Examination Preparation

Dear Colleagues:

The American College of Veterinary Preventive Medicine (ACVPM) is composing a list of references and resources for preparing to the board examination. The disciplines that are currently considered in the exam are: Environmental Health and Toxicology, Infectious Diseases, Public Health Administration and Education, Epidemiology and Biostatistics, and Food Safety.

I would appreciate it if you can inform me about courses (either regular or long distance learning) that you participate or are aware of related to these disciplines. These courses will be listed on the ACVPM website as resources materials for the examination preparation.

Your attention to this request is much appreciated.
Mo Salman BVMS, MPVM, Ph.D., DACVPM, F.A.C.E
Professor of Veterinary Epidemiology
Animal Population Health Institute
College of Veterinary Medicine and Biomedical Sciences
Colorado State University
Ft. Collins, CO 80523-1680
Phone 1-970-491-7950
Voice messages 1-970-491-0353
Fax 1-970-491-1889
WWW.cvmbs.colostate.edu/aphi

What is Norwalk Virus? - Updated
April 2003
Food Safety Network Factsheet
http://www.eatwelleatsafe.ca/factsheets/Norwalk.pdf

Norwalk virus and Norwalk-like viruses are now officially known as noroviruses. Noroviruses can be transmitted via food, water or from person-to-person through contamination by infected feces and vomit. There are many different strains of norovirus, making it difficult for a person’s body to develop long-lasting immunity. Anyone can become sick from norovirus, although it mainly affects older children and adults. Noroviruses cause gastroenteritis, which is an inflammation of the stomach and the small and large intestines. The symptoms of gastroenteritis include nausea, vomiting, diarrhea and abdominal pain, headache and low-grade fever. Symptoms usually show up 1-2 days after being infected. Noroviruses are very contagious and there is currently no treatment for the infection but symptoms usually go away after 2-3 days. Some people may become severely dehydrated and may need rehydration therapy.

How do I avoid getting a norovirus infection?

Norovirus is found in the vomit and feces of humans who are infected with the virus. Those infected can contaminate food and water if they do not properly wash their hands after using the bathroom and before preparing food. Noroviruses can also be spread by sharing food and utensils with an infected person. They can be found in shellfish, which can become contaminated from infected food handlers or from the dumping of raw sewage in the waters surrounding them. Travellers to areas where water may be polluted should drink pasteurized milk or bottled beverages without ice. Food can be contaminated either by direct contact with contaminated hands or work surfaces that are contaminated with stool or vomit. Tiny droplets from nearby vomit can also travel through the air and contaminate food. Noroviruses do not multiply in food. Food handlers with symptoms of gastroenteritis should not prepare or touch food while they have symptoms and for 3 days after they recover from the illness as the virus can still be transmitted during this time. Food that may have been contaminated by an ill person should be discarded. There is no evidence to suggest that an infected person can become a long-term carrier of norovirus but the virus can be found in the stool and vomit of infected persons from the day they start to feel ill for as long as 2 weeks after they recover. Some employers may decide to reassign returning food handlers to duties away from direct food contact until this time period passes although with good hygiene, this step should not be necessary.

To prevent the spread of noroviruses:

Always thoroughly wash your hands with warm soapy water after using the toilet and before preparing foods
Protect drinking water supplies from contamination with raw sewage
Cook shellfish thoroughly
Wash fruits and vegetables before eating.

For more information on noroviruses or other food safety topics, please call the Food Safety Network toll-free at 1-866-50-FSNET or visit our website at www.foodsafetynetwork.ca Although we strive to make the information on this fact sheet helpful and accurate, we make no representation or warranty, express or implied, regarding such information, and disclaim all liability of any kind whatsoever arising out of use of, or failure to use, such information or errors or omissions on this fact sheet.
TSE in Animal Populations – Fact and Fiction - An International Conference

Location: Fort Collins, CO, USA  
Date: September 10-11, 2003  
Sponsors: OIE, USDA, Agriculture Canada, and TAFS

Several scientific meetings and presentations were conducted during the last decade for the purpose of sharing findings and discussing approaches to understand and reduce the spread of Transmissible Spongiform Encephalopathy (TSE) diseases in animals, specifically Bovine Spongiform Encephalopathy (BSE), scrapie and Chronic Wasting Disease (CWD).

The mainstream media and other communication routes have also attempted to interpret research findings and social concerns. The public, however, has been provided with information and options that are a mixture of the truth and speculation. There is little exchange of information among all the involved parties. Due to the geographical diversity in the occurrence of some of these diseases, sharing information from particular regions related specifically to TSE diseases is limited. The BSE situation in Europe has expanded the knowledge of European scientists and regulators. In the same way, the presence of CWD in North America has given several opportunities to local scientists and regulators to understand and deal with this disease. Thus, there is a need to enhance the communication with these parties for a better understanding of the main issues.

Purpose:

The purpose of this conference is to establish a line of communication between scientists, policy makers, regulators, and the public on topics related to TSEs in animal populations in order to improve future potential preventive measures. Updates on recent research, regulations, and other findings will be part of the conference. The scrapie in sheep will be used as a baseline disease for contrast and comparison. The potential zoonotic aspects will be included in these topics. This would require an understanding of current scientific findings and their implication in preventive measures as well as an understanding of the future impact of these diseases on the food chain supplies. Thus, scientists, policy makers, veterinary and public health regulators, wild life biologists, the general public, livestock producers, the food industry, and food suppliers should be part of this dialogue and communication.

Format:

The conference will be announced using specific list servers and it will have its own webpage.

The conference will be a combination of scientific and professional presentations in a panel format in which a previously prepared set of questions will be addressed. Written questions will also be solicited from the audience for use during the panel discussion. Participants will be from both the resource personnel and the user contingent. The resource group will consist of researchers in TSEs (both basic and applied research), regulators who have implemented and used rules applied to these diseases, and specialized diagnosticians of these diseases. The majority of the BSE specialists will be from Europe and the majority of the CWD specialists will be from North America. Scrapie is the baseline for the presentations and discussions to address similarities and differences among the three diseases.

These participants will contribute by assessing options and suggesting methods for future prevention of the spread of these diseases. The second category of participants is the user group who will discuss and suggest options for improving communication as related to the prevention strategies for these diseases. This group will be representatives of animal producers, wildlife specialists, hunters, consumers, food-chain suppliers, food retailers, regulators, and inspectors.

The two day conference will be divided into panels (maximum four panels) to answer the specific questions listed below. Major emphasis will be on BSE and CWD. However scrapie will be used as a baseline for comparison and contrasts.

Panel topics:

- Pathogenesis
- Diagnosis and epidemiology
- Prevention and regulations
- Research and future directions

Each panel will address the facts and myths of a specific topic for each of the two diseases.
The length of each panel will be no more than four hours, including one hour for open discussion with the presenters. Speakers will be selected to give an overview of the topic in lay terms. It is important to be able to synthesize scientific facts and consequential issues concerning risks and controls that affect the producers, food industry, hunters, and consumers.

The conference output will be shared with the scientific community, the media, food industry groups, diagnostic assays companies, hunter groups, and livestock producers. This may be presented in different formats according to the interest of the specific groups. It is possible that the presentations and responses to questions will be considered for publication in a special issue of a scientific journal.

Registration and accommodations:

The conference will be held at the University Park Holiday Inn Hotel in Fort Collins, Colorado, USA. Registration details are pending. To receive notification as information becomes available; please contact Pam Timms at APH1@colostate.edu

POSITIONS

Space does not permit a listing of the many opportunities for graduate study and employment. Please visit the AVEPM Web site at http://www.cvm.uiuc.edu/avepm/ for the most current listings.

SUGGESTED READING

Pathogen Survival in Swine Manure Environments and Transmission of Human Enteric Illness - A Review
March-April 2003
Journal of Environmental Quality 32:383-392
Tat Yee Guan and Richard A. Holley
Received for publication May 14, 2002.

The influence of zoonotic pathogens in animal manure on human health and well-being as a direct or indirect cause of human enteric illness is examined. Available international data are considered, but the study is focused on the developing situation in western Canada, where it is certain there will be further rapid growth in livestock numbers, particularly hogs. Major pathogens considered are Escherichia coli O157:H7, Salmonella, Campylobacter, Yersinia, Cryptosporidium, and Giardia. Canada is now the leading exporter of pork internationally, but recent increases in production contrast with constant domestic levels of pork consumption and declining levels of foodborne illness caused by pork. Effects of increased levels of manure production are not quantifiable in terms of effects on human health. The presence of major pathogens in manure and movement to human food sources and water are considered on the basis of available data. Survival of the organisms in soil, manure, and water indicate significant variability in resistance to environmental challenge that are characteristic of the organisms themselves. Generally, pathogens survived longer in environmental samples at cool temperatures but differences were seen in liquid and solid manure. Based on actual data plus some data extrapolated from cattle manure environments, holding manure at 25°C for 90 d will render it free from the pathogens considered above.

Robert Wood Johnson Foundation Young Epidemiology Scholars Competition
http://www.collegeboard.com/yes/

2002 Teacher Competition Winners

The Robert Wood Johnson Foundation and the College Board are pleased to recognize the winners of the first annual YES Teacher Competition. The eight teachers, who submitted six different models for innovative high school epidemiology curricula, were honored with awards totaling $75,000 and will be recognized at the College Board’s Regional Meetings in February 2003. YES, sponsored by The Robert Wood Johnson Foundation and the College Board, is designed to encourage an interest in epidemiology among high school teachers and their students. In this first year, high school teachers from a variety of disciplines, including biology, statistics, history, sociology, psychology, economics, and chemistry, submitted more than 90 models for classroom curricula that incorporated epidemiological methods. Each individual or team selected as a regional winner receives a $5,000 prize and an additional $15,000 if selected as a national winner. A
similar competition for high school juniors, the YES Student Competition for original student research, will kick off in the spring. Scholarships totaling up to $465,000 will be awarded to students each year, including $50,000 for each of two national winners.

Hailing from California, the District of Columbia, Florida, Ohio, Maryland, and Washington, the winning teachers reveal the valuable ways in which the tools of epidemiology can be applied in the high school classroom, and, in so doing, equip their students with important lifelong skills. The winning curricula will be available to all teachers here soon.

Read the winning teachers' profiles at:

Copyright © 2003 by collegeboard.com, Inc. and its licensors. All rights reserved. By visiting and using collegeboard.com, you agree to the Site Terms and Conditions and Privacy Policy. Contact Us.

**USDA's Animal and Plant Health Inspection Service Publishes Annual Veterinary Services' Report**

"Safeguarding Animal Health in 2002" is designed to provide stakeholders and the general public with an overview of the many and varied ways the USDA fulfilled its mission to protect and improve the health of the Nation's animals, animal products, and veterinary biologics in fiscal year (FY) 2002.

http://www.aphis.usda.gov/vs/highlights/

**Animal Disease Surveillance and Survey Systems: Methods and Applications**

Edited by M. D. Salman

This valuable text presents methods and techniques for conducting an animal disease surveillance program, and developing an animal health monitoring system. The text is a "recipe book" for these techniques as it explains modern techniques, while emphasizing the fundamentals and principles of using these techniques.

Availability: Estimated Due Date (subject to change):
10/15/2003
Publication Date: 2003
Size: 128 pages; 6 x 9
Binding: Paperback

Publisher: Iowa State Press
2121 State Avenue
Ames, IA 50014-8300
Phone: (515) 292-0140
Fax: (515) 292-3348
Order: 1-800-862-6657!