



# OHIO VETERINARY NEWSLETTER

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Ohio State University Veterinary Extension

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## News



The *Ohio Veterinary Newsletter* began in October of 1974 as a way for Veterinary Extension to relay relevant information to practicing veterinarians in Ohio.

We have decided to resume this effort for the entire Department of Veterinary Preventive Medicine and will periodically send out electronic notices containing pertinent news from the Department; unbiased, research-based information with practical relevance for veterinary practitioners working in food animal, equine, and shelter medicine; and a calendar of upcoming opportunities. Please feel free to provide your feedback and let us know what information is most helpful to you and your practice.

## New Poultry Extension Veterinarian

Dr. Mohamed M. El-Gazzar has been hired as our new Poultry Extension Veterinarian. He is originally from Giza, Egypt where he received his BVSc from Cairo University. His graduate work includes a Master of Avian Medicine (MAM) from the University of Georgia and a PhD from the Department of Veterinary Preventive Medicine at Ohio State. He is also a Diplomate of the American College of Poultry Veterinarians. His research background involves the molecular epidemiology of Avian Mycoplasma. He has a wide range of experience and technical expertise involving poultry medicine. Dr. El-Gazzar can be reached at [el-gazzar.1@osu.edu](mailto:el-gazzar.1@osu.edu)

## Research

Neely, C.D., Thomson, D.U., Kerr, C.A., & Reinhardt, C.D. (2014). **Effects of three dehorning techniques on behavior and wound healing in feedlot cattle.** *Journal of Animal Science*, 92(5), 2225-2229.

The researchers investigated behavior and wound healing associated with dehorning methods over a 4-week period by dividing feedlot cattle into a control group and 3 treatment groups as follows: banded using a Callicrate Bander, mechanical removal using a Keystone dehorner, and tipped using a hand saw. Factors investigated during the procedure included chute behavior and vocalization; and factors investigated following the

[dogs](#)

## Calendar

- ODHMCP
- Organic Livestock and Poultry Health

## Location

[Department of Veterinary Preventive Medicine](#)

Chair: Dr. William Saville  
A184 Sisson Hall  
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procedure included depression, gait/posture, appetite, and lying. Banding was found to be poor with some bands falling off and some banded horns still remaining after 4 weeks. Pain behavior and wound healing from banding appeared higher post-procedure than mechanical removal and tipped. The authors concluded that banding is not an effective alternative to mechanical dehorning. Mechanical removal had the highest pain behavior during the procedure, but it was very short term; and wound healing was better than banding. The tipped procedure was very similar to the control group with no apparent pain or healing issues; however, the full benefits of dehorning might not be achieved without complete removal of the horn. While the tipped procedure fared the best in terms of pain behavior and wound healing, additional research is needed to evaluate the presence and size of tipped horns on carcass bruising and performance.

[ACCESS THE ARTICLE...](#)

Kralik, P., Pribylova-Dziedzinska, R., Kralova, A., Kovarcik, & K., Slana, I. (in press). **Evidence of passive faecal shedding of Mycobacterium avium subsp. paratuberculosis in a Limousin cattle herd.** *The Veterinary Journal*.

Cattle with positive results for Johne's disease are considered either active or passive shedders. Active shedders are truly infected with Mycobacterium avium subsp. paratuberculosis (MAP). Passive shedders are not infected but have ingested MAP from the environment or contaminated feed, and it is simply passing through their digestive tract. The researchers aim was to continually remove heavy shedders from an infected closed herd (41 animals at beginning) and evaluate passive shedding on the interpretation of data using fecal PCR over a 53-month period. Culture results are considered the gold standard, but reliable and useful PCR results could decrease the time and expense associated with testing (PCR also detects dead DNA while culturing will only grow viable virus). This study used culturing, PCR, ELISA, and pathological investigation of tissues at slaughter to achieve their objective. Samples were collected and tested at the beginning and at 4, 9, 12, 17, 24, 30, 36, 43, 48 and 53 months after the first collection. Any cows identified as heavy shedders were removed following each sampling point. They found evidence of passive shedding using the PCR data and reaffirmed that a single heavy shedder increases the number of passive shedding cows meaning sporadic positive results can appear in non-infected cows. PCR was not reliable in labeling cows as heavy/low shedders, but could be reliable for removing heavy shedders with repeated testing every 2-4 months. The researchers concluded that heavy shedders can cause susceptible cows to be temporarily contaminated with MAP detectable by PCR but not culture, and that 3 consecutive positive PCR results will reliably identify an infected animal that should be culled. In addition, repeated non-consecutive low MAP concentrations identified by PCR likely indicate passive shedding (adding a positive ELISA result to these animals indicates a suspect to be watched more closely).

[ACCESS THE ARTICLE...](#)

Dahlen, C.R., Klein, S.I., Lamb G.C., Mercadante, V.R.G., & Steichen, P.L. (2014) **Technical note: Physiological response of beef heifers after receiving a reused controlled internal drug release insert processed with different heat-treating methods.** *Journal of Animal Science*, 92(5), 2275-2279.

The researchers evaluated previously used controlled internal drug release (CIDR) inserts and the effects of various heating/processing methods on concentrations of progesterone after reinsertion into beef heifers. Previous research has indicated that autoclaving is a potential means to safely and effectively reuse CIDR inserts; however, autoclaves are not common on farms and some producers have tried alternative methods of heat processing/sterilization such as using a dishwasher, microwave, household oven, clothes dryer, or sunlight. All used CIDR inserts were washed and brushed in warm water, rinsed with Nolvasan, air dried, and stored for 6 months prior to receiving any treatment. A

control group using new CIDR inserts was compared to treatment groups with reused CIDRs grouped as follows: no heat treatment; autoclaved; household dishwasher; microwave; household oven; clothes dryer; boiling water; and environmental exposure to sun, rain, wind, etc. Various blood samples were collected to measure progesterone concentrations. The findings showed that reusing with or without on-farm processing methods did not have comparable progesterone release to new or autoclaved CIDRs. The authors concluded that autoclaved CIDRs did have higher concentrations than new CIDRs during the first 24 hours, but new CIDRs had sustained concentrations of progesterone that were greater than all other treatments from Day 5 after insertion until the time of CIDR removal on Day 7.

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Duesterdieck-Zellmer, K.F., Riehl, J.H., McKenzie, E.C., Firshman, A.M., Payton, M.E., & Gorman, M.E. (2014). **Effects of abdominocentesis technique on peritoneal fluid and clinical variables in horses.** *Equine Veterinary Education*, 26(5), 262-268.

The researchers aim was to determine if abdominocentesis with a sharp-tipped needle was superior to abdominocentesis with a blunt-tipped cannula with respect to successfully obtaining peritoneal fluid, complications during and after abdominocentesis, and iatrogenically induced changes in peritoneal fluid variables over time. Operators selected for the study were well-trained but inexperienced; thus, they had not developed personal bias or greater proficiency in using a particular technique. The authors concluded that both techniques appeared safe and effective and neither was found to be clearly superior to the other. They did find that using a blunt-tipped cannula resulted in more subcutaneous swelling after 24 hours.

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Litster, A.L., Nichols, J., Hall, K., Camp, J., & Moahmed, A.S. (2014) **Use of ponazuril paste to treat coccidiosis in shelter-housed cats and dogs.** *Veterinary Parasitology*, 202, 319-325.

The researchers objective was to determine the efficacy of using ponazuril paste on dogs and cats with coccidiosis. They used dogs and cats with confirmed cases of coccidiosis at the PAWS Chicago animal shelter. Treatment groups included 50 mg/kg for 3 days, 50 mg/kg as a single dose, and 20 mg/kg as a single dose. They determined that both single dose treatments with ponazuril were not effective. The 50mg/kg for 3 days dosage did not always reduce the infection to undetectable levels. They concluded with recommendations for using 50mg/kg for 3 days followed by fecal flotation and then repeat if detectable oocysts are found. In addition, they recommend that environmental exposure should be reduced by cleaning facilities and bathing animals.

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## Calendar



A full calendar of all upcoming events and continuing education opportunities offered by the College of Veterinary Medicine is available on the website at <http://vet.osu.edu/>

## Ohio Dairy Health and Management Certificate Program

Module 2 – Advanced Dairy Reproduction  
August 7-9, 2014

## Organic Livestock and Poultry Health Series

Webinar - CSI for Dairy: On-Farm Audits to Assess Risk  
Monday, June 23, 2014 at 1:00 pm

Workshop - Certified Organic Dairy Tour and Workshop  
Pleasantview Farm, Circleville, OH, Thursday, June 26, 2014 at 1:00 pm

Webinar - Certified Organic Livestock Standards  
Thursday, July 10, 2014 at 1:00 pm

Webinar - Organic Livestock Inputs  
Wednesday, October 1, 2014 at 1:00 pm



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