

OHIO STATE UNIVERSITY EXTENSION



# OHIO VETERINARY NEWSLETTER

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## Research

Adams-Progar, A. L., Friend, T. H., Holub, G. A., Krenek, A. J., Garey S. M., & Terrill, C. L. (2015). **Effects of repeated transport on Holstein calf post-transport behavior and feed intake.** *Journal of Animal Science*. Advance online publication. doi: 10.2527/jas2014-7724

**BACKGROUND:** Stress has been shown to have a negative impact on cattle feed intake, growth, and production. Acclimation, or habituation, to road transport has not been widely studied in livestock, but especially little information is known about calf behavior post-transport and the effects of repeated transport on calf growth.

**PURPOSE:** The objective was to determine if calves acclimate to weekly transport and how repeated transport affects feed intake, average daily gain, and feed conversion in Holstein calves.

**RESULTS:** The control calves, which were not transported, had a higher feed intake overall for the feeding post-treatment and the day after treatment. Feed intake for the feeding post-treatment for transported calves significantly decreased after the second transport, but increased with each successive transport. Overall, control calves had higher average daily gains than transported calves. No significant differences were found for feed conversion.

**CONCLUSIONS:** The authors concluded that the results suggest that calves exposed to repeated transport may decrease feed intake compared to non-transported calves as an initial response to transport, however, overall feed conversion was not affected and these Holstein calves may have quickly acclimated to repeated transport.

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Stallknecht, D. E., Allison, A. B., Park, A. W., Phillips, J. E., Goekjian, V. H., Nettles, V. F., & Fischer J. R. (2015). **Apparent increase of reported hemorrhagic disease in the midwestern and northeastern United States.** *Journal of Wildlife Diseases*. Advance online publication. doi: 10.7589/2013-12-330

**BACKGROUND:** Hemorrhagic disease (HD) is caused by related orbiviruses in the bluetongue virus and epizootic hemorrhagic disease virus (EHDV) serogroups of the

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family *Reoviridae*. Despite the changing patterns reported from Europe and the detection of new bluetongue virus and EHD virus in the US, a northern expansion of HD in North America has not been thoroughly investigated. Such an expansion could be characterized not only by an increase in latitudinal range but also by an increase in disease frequency and intensity.

**PURPOSE:** The purpose was to investigate temporal and spatial trends in reporting of hemorrhagic disease in the midwestern and northeastern US using a 33-year (1980–2012) questionnaire-based data set.

**RESULTS:** Both the number of counties that were reported positive for HD and the northern latitudinal range of reported HD increased with time. A similar increase was observed with both the number of states annually reporting HD and the number of counties where HD was reported. Large-scale outbreaks occurred in 1988, 1996, 2007, and 2012, and the scale of these individual outbreaks also increased with time. The predominant virus isolated from these regions was EHDV-2, but the prevalence of EHDV-6, which was first detected in 2006, appears to be increasing. Temporally, the extent of regional HD reporting was correlated with regional drought conditions.

**CONCLUSIONS:** The authors concluded that the significance of increases in reported HD and the incursions and establishment of new bluetongue virus and EHD virus in the US currently are unknown.

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Elmore, M. R. P., Elischer, M. F., Claeys, M. C., & Pajor, E. A. (2015). **The effects of different flooring types on the behavior, health, and welfare of finishing beef steers.** *Journal of Animal Science*. Advance online publication. doi:10.2527/jas2014-8399

**BACKGROUND:** In the dairy industry, there is an emphasis on “cow comfort”, with many researchers investigating flooring alternatives to concrete to improve animal health, hygiene, and welfare. Research into improving flooring comfort for finishing beef cattle has been frequently overlooked possibly due to economic constraints and the short time that beef cattle spend in finishing units compared to dairy cattle. Thus, a need exists to examine alternative flooring options for U.S. beef cattle, as concrete floors are still used in finishing and research facilities.

**PURPOSE:** The objective was to compare the effects of different types of flooring on beef cattle performance and welfare.

**RESULTS:** Flooring types included fully-slatted concrete, fully-slatted rubber mat, or solid rubber mat. No differences were observed in weight gain or average daily gain. Steers on solid rubber mat showed increased lesions. Steers on fully-slatted rubber mat showed reduced gait scores, had less joint swelling, and were cleaner. In addition, these steers showed an increase in postural changes. Even though the solid rubber mat pens used that same rubber as slatted pens, similar improvements in leg health and function were not observed. The solid rubber was also covered with wet manure.

**CONCLUSIONS:** The authors concluded that the data demonstrates that the addition of slatted rubber mats to concrete pens improves finishing beef steer locomotion, leg/joint health, and alterations in behavior that are indicative of increased traction and reduced discomfort. Therefore, slatted rubber mats may offer a flooring alternative to improve the welfare of beef cattle housed in systems with concrete flooring.

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Marsh, A. E., & Babcock, S. (2015). **Legal implications of zoonotic disease transmission for veterinary practices.** *Veterinary Clinics: Small Animal Practice*. Advance online publication. doi: 10.1016/j.cvsm.2014.11.008

**BACKGROUND:** Zoonotic diseases are important both from a public health point of view and because of the effects they may have on veterinary licensure discipline and litigation. Animals may be subclinical carriers of one or more zoonotic agents. Many immunocompromised clients do not seem outwardly different than the general pet-owning public. Thus, some risk of zoonotic disease infection is ever-present. However, if someone is injured by a zoonotic pathogen and it is attributed to a veterinarian's negligence, the individual or members of the victim's family could file a claim and may recover a monetary amount through litigation or settlement. There are no absolute guarantees to legal-proof veterinary practice standards as it relates to zoonotic diseases and human injury. Essentially, effective communications go a long way toward avoiding liabilities associated with zoonotic agents.

**KEY POINTS:**

Owners should be educated when a zoonotic agent is suspected or diagnosed relative to the animal's health and its human contacts and their potential need for physician referral.

Advisories should be recorded in the animal's medical record. If required by law, report the occurrence of zoonotic disease to the appropriate regulatory agency and keep copies of reports.

Actions and documents serve as legal evidence in opposition to a claim of malpractice, professional negligence, or complaints to the state veterinary practice licensing boards.

Veterinarians should develop and engage in opportunities to build relationships with other health professionals to facilitate the communication needed to minimize zoonotic disease transmission.

This article will be published in the forthcoming March, 2015 issue of *Veterinary Clinics: Small Animal Practice* which focuses on "Infection Control". Dr. Jason Stull, Assistant Professor within VPM, is a co-editor for this edition.

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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 4 – Advanced Dairy Cattle Nutrition  
March 19-21, 2015

### [OEFFA Conference 2015](#)

February 13, 2015 – Pre-Conference

Join veterinarians Dr. Päivi Rajala-Schultz and Dr. Luciana da Costa from the Department of Veterinary Preventive Medicine and Organic Valley Cooperative staff veterinarian Dr. Guy Jodarski to learn the basic requirements for good udder health, strategies for managing clinical mastitis, and more.

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The *Ohio Veterinary Newsletter* began in October of 1974 as a way for Veterinary Extension to relay relevant information to practicing veterinarians in Ohio. The aim is to communicate pertinent news from the Veterinary Extension Unit; 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.

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