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In This Issue

News

ODPA Spring Meeting

Those involved with the dairy industry from across the state are invited to attend the ODPA Spring Meeting to hear from Domino's Chief Marketing Officer Joe Jordan about their success in partnering with your dairy promotion program, how dairy and pizza are intertwined, and how we have and must continue working together to grow dairy sales.

Why? We know that consumers today are further removed from agriculture, more interested in where their food comes from, and more confused than ever given the often conflicting information with which they are bombarded.

Register by April 4, 2016!

- Get updates from OARDC, ATI, and the ODPA Dairy Research Fund
- Hear a legislative update from Scott Higgins, ODPA, and have a chance to provide your input on issues like GMOs, manure management, and water quality
- Enjoy lunch catered by Des Dutch Essenhaus, compliments of the sponsors
- Discover what is being done to address consumer confidence in dairy and the role dairy farmers play in its success
- Learn more about the National Dairy FARM Program from Dr. Katy Proudfoot, Extension Specialist-Animal Welfare & Behavior
- Get practical ideas from Dr. Richard Wiley, New Pittsburg Veterinary Clinic, about improving best management practices on the farm

ODPA Spring Meeting
April 11, 2016
10:00 AM to 3:00 PM
Shisler Center
1680 Madison Ave
Wooster, Ohio 44691

Registration begins at 9:30 AM with milk, coffee, and donuts. Lunch will be provided and there is no fee to attend, courtesy of the sponsors.

For more details and registration information…

Calendar

- Food Armor® Phase I & II Training
- Dairy Cattle Welfare Symposium
- ODHMCP

Click here to view archives

Location

Department of Veterinary Preventive Medicine

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Q&A Session

QUESTION: We offer pregnancy diagnostic service to our dairy clients and we have noticed during the routine pregnancy examination (ultrasound) that about 5% of pregnant cows have a single embryo within the uterine horn contralateral to the corpus luteum (CL). Is it possible that a single bovine embryo migrates to the contalateral horn (instead of ipsylateral) relative to the ovarian CL (pregnancy diagnosis at 40 days post-AI)?

ANSWER: Transuterine migration of embryos occurs with high frequency in pigs, sheep, and dogs. Uterine migration of bovine embryos (days 7 to 13 since fertilization) has been reported in cattle (2-3%), it is higher for twins (perhaps a mechanism of embryo survival within the confined uterine environment). Those cows confirmed pregnant with a CL contralateral to the embryo, likely had two embryos and only one survived and remained at the time of pregnancy diagnosis (as observed at 40 days post AI).

Research

Gott, P. N., Rajala-Schultz, P. J., Schuenemann, G. M., Proudfoot, K. L., & Hogan, J. S. (2016). **Intramammary infections and milk leakage following gradual or abrupt cessation of milking**. *Journal of Dairy Science*. Advanced online publication. doi: 10.3168/jds.2015-10348

BACKGROUND: Abrupt cessation or “stop” milking is when normal daily milking is discontinued on a set day, often based on an expected calving date and a targeted dry period length. Gradual cessation of milking (also referred to as intermittent milking or reduced milking frequency) involves cows being slowly weaned from milking over a period of days or weeks. Despite the previous research indicating that gradual cessation of milking is beneficial to udder health, 89.8% of US dairy cows are abruptly dried off according to estimates from the 2014 NAHMS Dairy study.

PURPOSE: The objective was to assess the effect of milking cessation method and daily milk yield before dry-off on milk leakage following dry-off and intramammary infections (IMI) at calving in today’s high-producing dairy cows. The hypothesis was that gradual cessation of milking would decrease milk yield before dry-off, reduce milk leakage after dry-off, and lead to fewer IMI at calving.

RESULTS: Gradual cessation of milking successfully decreased milk production before dry-off, but milk yield before dry-off did not have a significant effect on overall IMI prevalence at calving. However, gradual cessation of milking affected cows ending their first lactation and older cows differently. Quarters of primiparous cows dried off via gradual cessation were significantly less likely to have an IMI at the time of calving compared with quarters of primiparous cows that were dried off abruptly. In contrast, quarters of cows ending their second or greater lactation and dried off by gradual cessation had significantly higher odds of IMI at calving than quarters of cows dried off abruptly.

CONCLUSIONS: The authors concluded that these results indicate that implementation of differing management practices near dry-off for different parity groups within a farm may be beneficial to mammary health across the herd.

ACCESS THE ARTICLE…

Tunick, M. H., Van Hekken, D. L., Paul, M., Ingham, E. R., & Karreman, H. J. (2016). **Case study: Comparison of milk composition from adjacent organic and conventional farms in the USA**. *International Journal of Dairy Technology, 69*(1), 137–142. doi: 10.1111/1471-0307.12284

BACKGROUND: There is tremendous growth of organic milk and dairy products in the US because consumers perceive that the products coming from organic farms are healthier than products from conventional operations. It has been reported that researchers generally have not controlled sufficient variables to allow for valid comparisons between organic and conventionally produced milk.

PURPOSE: To describe the differences in α-linolenic acid (18:3) and other compositional aspects between two adjacent farms located in Pennsylvania, one using conventional confined herd management and the other organic management, over an 80-week period covering two grazing seasons.

RESULTS: Compared with conventional milk, organic milk had higher levels of conjugated linoleic acid (CLA) and α-linolenic acid (the major omega-3 fatty acid in milk), and less stearic and linoleic acid (the major omega-6 fatty acid in milk) during the spring–summer grazing season. When discarding geography and weather as variables, organic milk appears to yield more CLA and α-linolenic acid.

CONCLUSIONS: The amounts of CLA and 18:3 were higher in organic milk (from pasture-fed cows) than in conventional milk (no access to pasture) from neighboring farms where geography and weather were identical. Expected seasonal variations in fat and protein contents were observed. Grazing cows on pasture will elevate CLA and 18:3 in their milk without having to supplement their diet.

ACCESS THE ARTICLE…

Fowler, H. N., Holzbauer, S. M., Smith, K. E., & Scheftel, J. M. (2016). **Survey of occupational hazards in Minnesota veterinary practices in 2012**. *Journal of the American Veterinary Medical Association, 248*(2), 207-218. doi: 10.2460/javma.248.2.207

BACKGROUND: Exposures to occupational hazards in the clinical veterinary medical setting are common. Surveys have revealed that 50% to 67% of veterinarians and 98% of veterinary technicians experience an animal-related injury at some point in their careers. Reported mechanisms of these injuries include animal bites, kicks, and scratches and crushing by equipment used for animal restraint. Other occupational threats to health include chemical, physical, and biological hazards. Most reported studies involving occupational hazards in veterinary medicine have focused on veterinarians only, often on a single exposure or workplace hazard.

PURPOSE: The objectives were to identify the scope of occupational hazards in all types of veterinary personnel in Minnesota, including office staff, and to compare exposures between veterinarians and technicians and between veterinary personnel working in small and large animal practices.

RESULTS: 831 eligible people responded, representing approximately 10% of Minnesota veterinary personnel. A greater proportion of veterinarians (93%; 368/394) reported having received preexposure rabies vaccinations than did veterinary technicians (54%; 198/365). During their career, 226 (27%) respondents had acquired at least 1 zoonotic infection and 636 (77%) had been injured by a needle or other sharps. Recapping of needles was reported by 87% of respondents; the most common reason reported by veterinarians (41%; 142/345) and veterinary technicians (71%; 238/333) was being trained to do so at school or work. Recent feelings of depression were reported by 204 (25%) respondents. A greater proportion of technicians (42%; 155/365) than veterinarians (21%; 81/394) indicated working in an environment in which employees experienced some form of workplace abuse.

CONCLUSIONS: The authors concluded that their findings supported the concept that, although it is not possible to eliminate all hazards associated with veterinary practice, employers should conduct a workplace risk assessment and implement appropriate control measures. Adherence to a well-developed employee safety and health program that includes regular staff training will minimize the risk of injury and illness.

ACCESS THE ARTICLE…

van der Leek, M. L. (2015). **Beyond traditional dairy veterinary services: 'It's not just about the cows!'**. *Journal of the South African Veterinary Association, 86*(1). doi: 10.4102/jsava.v86i1.1221

BACKGROUND: It remains a challenge for the role of the dairy veterinarian to move beyond that traditionally held by offering services that are seemingly non-veterinary. Herd health programs describe different combinations of services, but the author prefers the term, animal health and production management (AHPM). AHPM programs go beyond those that typically include reproductive services and the control of disease (clinical and subclinical). Dairy production medicine integrates veterinary medicine and animal science into a system to produce milk profitably. The design, implementation, and management of this system is multidisciplinary, including clinical medicine, economics, epidemiology, food safety, genetics, human resource management, nutrition, preventive medicine, and reproduction. To be profitable without neglecting animal welfare and food safety, these specialties must work in concert to harmonize management.

PURPOSE: This review article shares perspectives, opportunities, and tools that might enable moving beyond the traditional role.

CONCLUSIONS: Globally, herd sizes are increasing with more work being performed in-house. The bulk of this work is of a technical nature and can be performed as effectively by the employees as by a veterinarian at a fraction of the cost. This should not instill fear, but creates opportunity. Moving beyond traditional veterinary services requires the veterinarian to retrain and retool, with a positive economic outcome for both the veterinarian and dairyman. It is the case that the dairyman is often unaware of the value that might be added by their veterinarian. It is equally unfortunate when the veterinarian concludes that their client just does not grasp the concept of AHPM. A sustainable AHPM program requires a shift in mind-set by both the veterinarian and client. The interested veterinarian needs to drive this change, even though it requires a huge investment and initially offers little in the way of financial gain.

ACCESS THE ARTICLE...

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/**

Responsible Antibiotic Use: Using Protocols to Recognize and Treat Sick Cows and Calves

April 21, 2016, English-speaking participants
April 22, 2016, Spanish-speaking participants
OSU-ATI Dairy Facility, Wooster, Ohio
Held in conjunction with Wayne County Extension.

Food Armor® Phase I & II Training

April 27-28, 2016
OVMA, Powell, Ohio

No cost, but registration is required (deadline April 1st, limited to 25 participants).

Dairy Cattle Welfare Symposium

Intersection of Best Practices and Sustainability
May 20-21, 2016
Ohio Union, Columbus, Ohio
Early-bird registration ends April 1st (limited to 265 attendees).

Ohio Dairy Health and Management Certificate Program

Spots are always available for specific module plan.

Access to full-text journal articles may require individual subscriptions.

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