

OHIO STATE UNIVERSITY EXTENSION



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Research

Wolf, R., Barkema, H. W., DeBuck, J., Slomp, M., Falig, J., Hauptstein, D., ... Orsel, K. (2014). **High herd-level prevalence of *Mycobacterium avium* subspecies *paratuberculosis* in Western Canadian dairy farms, based on environmental sampling.** *Journal of Dairy Science*. Advance online publication. doi: 10.3168/jds.2014-8101

BACKGROUND: Johne's disease is present in modern dairies in most countries. The prevalence is uncertain as estimates range considerably.

PURPOSE: The objectives of the current study were to estimate herd prevalence of MAP infection in Alberta and Saskatchewan dairy herds, based on environmental sampling, and to determine whether housing type or current herd size influenced the risk of MAP infection for a herd.

RESULTS: There were 360 (60%) dairy farms in Alberta and 166 (99%) in Saskatchewan that participated with environmental samples. The authors determined overall herd prevalence was 68% in Alberta and 76% in Saskatchewan. There was a significant effect of larger herds. Herds with >200 cows were 3.54 times more likely to have a positive environmental sample than herds with <50 cows. Housing type was eliminated from their final model.

CONCLUSIONS: The authors concluded that estimates show the majority of dairy farms in Alberta and Saskatchewan were infected with MAP. Furthermore, large herds were more likely to test positive than small herds.

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Kellermann, M., & Salhofer, K. (2014). **Dairy farming on permanent grassland: Can it keep up?** *Journal of Dairy Science*. Advance online publication. doi: 10.3168/jds.2013-7825

BACKGROUND: The preservation of permanent grassland is an important agricultural conservation policy of the United State and the European Union. The productive potential of grasslands is somewhat limited to ruminants.

PURPOSE: The objective was to measure the levels and growth rates of total factor productivity of dairy farms in Bavaria and examine whether grassland dairy farms are able

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to keep up with their fodder-crop counterparts in terms of productive performance.

RESULTS: Grassland and fodder-crop dairy farm production systems were further divided as intensive or extensive based on differences in stocking density and milk yield per cow and year. Intensive farms produce relatively more milk, on average, and use an almost equal work force and area under cultivation. These farms have a higher stocking rate and larger dairy herds, use more intermediate inputs, achieve higher milk yields per cow, and have expanded their production faster than the extensive farms. A surprising finding was that despite the higher milk yields per cow in the intensive classes in both groups, they found higher costs for veterinary services per cow in the extensive classes.

CONCLUSIONS: The authors concluded that permanent grassland farms can generally keep up with fodder-crop farms, even in an intensive production setting. However, extensively operating farms, especially those on permanent grassland, significantly lag behind in productivity and productivity change and run the risk of losing ground.

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Lange-Consiglio, A., Spelta, C., Garlappi, R., Luini, M., & Cremonesi, F. (2014). **Intramammary administration of platelet concentrate as an unconventional therapy in bovine mastitis: First clinical application.** *Journal of Dairy Science*. Advance online publication. doi: 10.3168/jds.2014-7999

BACKGROUND: Human medicine uses autologous platelet concentrate to accelerate healing. In veterinary medicine, little clinical information exists about the application of platelet-rich plasma.

PURPOSE: The aim of this study was to evaluate the effect of platelet concentrate administration, alone or associated with antibiotic therapy, in the control of clinical acute and chronic mastitis.

RESULTS: Treatments groups included (1) with antibiotic alone, (2) antibiotic and platelet concentrate, and (3) only platelet concentrate. Antibiotic with platelet concentrate had significantly superior performance compared to antibiotic alone. The platelet concentrate only group was not significantly different for acute mastitis, but was significantly better for chronic mastitis.

CONCLUSIONS: The data confirm the hypothesis that platelet concentrate is involved in the healing of mammary tissue in relation to the limited rate of relapse. It is known that platelets play a prominent and likely determinant role in the initiation and maintenance of injury healing, but further research is required to establish the optimum number of platelets to be used in platelet concentrate, its efficacy in larger clinical trials, and to detect if platelet concentrate alone could markedly influence recovery from mastitis.

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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 3 – Basic Dairy Cattle Nutrition
December 4-6, 2014

Module 4 – Advanced Dairy Cattle Nutrition
March, 2015 (TBD)

Modules 3 and 4 of this cohort will be focused on nutrition. Space is still available under the specific-module option.

Organic Livestock and Poultry Health Series

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



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