



FAWEC

FARM ANIMAL
WELFARE
EDUCATION CENTER

Welfare issues related to mastitis in cows

Cyplis JA, Fitzpatrick CE, Leslie KE, DeVries TJ, Haley DB, Chapinal N. Short communication: the effects of experimentally induced *Escherichia coli* clinical mastitis on lying behavior of dairy cows. *Journal of Dairy Science* 2012, 95:2571-2575

EFSA 2009. Scientific opinion on welfare of dairy cows in relation to udder problems based on a risk assessment with special reference to the impact of housing, feeding, management and genetic selection. *The EFSA Journal* 2009, 1141:1-60.

Eshraghi HR, Zeitlin IJ, Fitzpatrick JL, Ternent H, Logue D. The release of bradykinin in bovine mastitis. *Live Sciences* 1999, 64: 1675-1687.

Fitzpatrick CE, Chapinal N, Petersson-Wolfe CS, DeVries TJ, Kelton DF, Duffield TF, Leslie KE. The effect of meloxicam on pain sensitivity, rumination time, and clinical signs in dairy cows with endotoxin-induced clinical mastitis. *Journal of Dairy Science* 2013, 96:2847-2856.

Fogsgaard KK, Røntved CM, Sørensen P, Herskin MS. Sickness behavior in dairy cows during *Escherichia coli* mastitis. *Journal of Dairy Science* 2012, 95:630-638.

Hogeveen H, Huijps K, Lam TJGM. Economic aspects of mastitis: new developments. *New Zealand Veterinary Journal* 2011, 59:16-23.

Leslie KE, Petersson-Wolfe CS. Assessment and management of pain in dairy cows with clinical mastitis. *Veterinary Clinics of North America: Food Animal Practice* 2012, 28:289-305.

Medrano-Galarza C, Gibbons J, Wagner S, de Passillé AM, Rushen J. Behavioral changes in dairy cows with mastitis. *Journal of Dairy Science* 2012, 95:6994-7002.

Nielsen C. Economic impact of mastitis in dairy cows. Doctoral Thesis of the Swedish University of Agricultural Sciences, 2009.

Siivonen J, Taponen S, Hovinen M, Pastell M, Lensink BJ, Pyörälä S, Hänninen L. Impact of acute clinical mastitis on cow behaviour. *Applied Animal Behaviour Science* 2011, 132:101-106.

Suojala L, Kaartinen L, Pyörälä S. Treatment for bovine *Escherichia coli* mastitis - an evidence-based approach. *Journal of Veterinary Pharmacology and Therapeutics* 2013, 36:521-531.