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# actualités en perspective **douleur, bien-être et mammites**

## chez les bovins compléments d'article

Voici les références de cet article  
avec les liens qui renvoient  
sur les sites concernés.

Nous proposons également  
quelques photos  
complémentaires.



Trayons paravaccine (photos X. Berthelot).



Gros jarret.



Déséquilibre de la mamelle.

## douleur, bien-être et mammites chez les bovins

### Références

1. Anderson KL, Smith AR, Shanks RD, coll. Efficacy of flunixin meglumine for the treatment of endotoxin-induced bovine mastitis. *Am J Vet Res* 1986;47:1366-72.
2. Anderson KL, Hunt E. Anti-inflammatory therapy in acute endotoxin-induced bovine mastitis. *Vet Res Commun* 1989;13:17-26.
3. Anses, 2015 - Avis relatif à des Recommandations pour l'élaboration d'un guide de bonnes pratiques pour assurer le bien-être animal. <https://www.anses.fr/sites/default/files/documents/SANT2014sa0252.pdf>
4. Astiz S, Sebastian F, Fargas O, coll. Enhanced udder health and milk yield of dairy cattle on compost bedding systems during the dry period : A comparative study. *Livestock Science* 2014;159: 161-4.
5. Banting A, Banting S, Heinonen K, coll. Efficacy of oral and parenteral ketoprofen in lactating cows with endotoxin-induced acute mastitis. *Vet Rec* 2008;163:506-9.
6. Barberg AE, Endres MI, Salfer JA, coll. Performance and Welfare of Dairy Cows in an Alternative Housing System in Minnesota. *J Dairy Sci* 2007;90:1575-83.
7. Borsberry S. When I qualified mastitis was not a painful condition. Proc British Mastitis Conference 2003;63-71. <http://www.britishmastitisconference.org.uk/>
8. Botreau R. Evaluation multicritère du bien-être animal : exemple des vaches laitières en ferme. Thèse doct, AgroParisTech, 2008:436. <http://scholar.google.fr/scholar?hl=fr&q=Botreau+R.+2008&btnG=&l=>
9. Bradley AJ, Leach KA, Breen JE, coll. Survey of the incidence and aetiology of mastitis on dairy farms in England and Wales. *Vet Rec* 2007;160:253-8.
10. Bramley AJ, Neave FK. Studies on the control of environmental mastitis in dairy cows. *British Vet J* 1975;131:160-9.
11. Coignard M. Approche épidémiologique de la santé des vaches laitières à l'aide de l'outil d'évaluation Welfare Quality®. Thèse doct, Université Nantes Angers Le Mans, 2013:222. [http://scholar.google.fr/scholar?q=Coignard+M.+Welfare+quality&btnG=&hl=fr&as\\_sdt=0%2C5](http://scholar.google.fr/scholar?q=Coignard+M.+Welfare+quality&btnG=&hl=fr&as_sdt=0%2C5)
12. Conseil de l'Europe. Convention européenne sur la protection des animaux dans les élevages. STCE n°87, Strasbourg, 10 mars 1976:4. <http://conventions.coe.int/treaty/fr/Treaties/Html/087.htm>
13. Dantzer R. Le bien-être des animaux d'élevage. Agrobiosciences, 2002:15.
14. Darteville G. Etude des pratiques analgésiques des vétérinaires ruraux chez les bovins en France. Thèse doct vét, Toulouse, 2014:135. [http://oatao.univ-toulouse.fr/12268/1/Darteville\\_12268.pdf](http://oatao.univ-toulouse.fr/12268/1/Darteville_12268.pdf)
15. De Boyer Des Roches A. Atteintes au bien-être des vaches laitières : étude épidémiologique. Thèse de doctorat, Université Blaise Pascal - Clermont-Ferrand II, 2012:355. <https://tel.archives-ouvertes.fr/tel-00766796/document>
16. De Boyer Des Roches A, Mounier L, Coignard M, coll. Bien-être animal en élevage laitier : problèmes majeurs rencontrés et relation avec certaines caractéristiques des fermes. Renc. Rech. Ruminants 2012;19:277-80. [http://www.journees3r.fr/IMG/pdf/Texte\\_6\\_systemes\\_A-De\\_Boyer\\_des\\_Roches.pdf](http://www.journees3r.fr/IMG/pdf/Texte_6_systemes_A-De_Boyer_des_Roches.pdf)
17. De Boyer Des Roches A, Veissier I, Coignard M, coll. Le bien-être des vaches laitières françaises passé au crible : approche épidémiologique. Le Point Vét 2014;347:50-6.
18. DeGraves FJ, Anderson KL. Ibuprofen treatment of endotoxin-induced mastitis in cows. *Am J Vet Res*, 1993;54:1128-32.
19. Dijkstra C, Veermäe I, Praks J, coll. Dairy Cow Behavior and Welfare Implications of Time Waiting Before Entry Into the Milking Parlor. *Journal of Applied Animal Welfare Science* 2012;15:329-45. <http://dx.doi.org/10.1080/10888705.2012.709137>
20. Fajt VR, Wagner SA, Norby B. Analgesic drug administration and attitudes about analgesia in cattle among bovine practitioners in the United States. *JAVMA* 2011;238:755-67.
21. Fitzpatrick JL, Young FJ, Eckersall D, coll. Recognising and controlling pain and inflammation in mastitis. Proc British Mastitis Conference 1998;36-44. <http://www.britishmastitisconference.org.uk/>
22. Fisher MW. Defining animal welfare - does consistency matter? *New Zealand Vet J* 2009;57:71-3.
23. Fitzpatrick CE, Chapinal N, Petersson-Wolfe CS, coll. The effect of meloxicam on pain sensitivity, rumination time, and clinical signs in dairy cows with endotoxin-induced clinical mastitis. *J Dairy Sci* 2013;96:2847-56.
24. Fogsgaard KK, Røntved CM, Sørensen P, coll. Sickness behavior in dairy cows during Escherichia coli mastitis. *J. Dairy Sci* 2012;95:630-8
25. Fourichon C, Beaudeau F, Bareille N, coll. Incidence of health disorders in dairy farming systems in western France. *Livestock Prod Sci* 2001;68:157-70.
26. George LW. Pain control in food animals. In: Recent advances in anesthetic management of large domestic animals, Steffey EP (Ed.). International Veterinary Information Service, Ithaca NY, 2003:12. [http://www.ivis.org/advances/Steffey\\_Anesthesia/a/george/chapter.asp?LA=1](http://www.ivis.org/advances/Steffey_Anesthesia/a/george/chapter.asp?LA=1)
27. Heleski CR, Mertig AG, Zanella AJ. Results of a national survey of US veterinary college faculty regarding attitudes toward farm animal welfare. *JAVMA* 2005;226:1538-46.
28. Hewson CJ, Dohoo IR, Lemke KA, coll. Canadian veterinarians' use of analgesics in cattle, pigs, and horses in 2004 and 2005. *Can Vet J* 2007;48: 155-64.
29. Hillerton JE. Mastitis therapy is necessary for animal welfare. *Bulletin of the IDF* 1998;130:4-5.
30. Hillerton JE, Berry EA. Treating mastitis in the cow - a tradition or an archaism. *J Appl Microbiol* 2005;98:1250-5.
31. Hudson C, Whay H, Huxley J. Recognition and management of pain in cattle. In *Practice* 2008;30:126-34.
32. Huxley JN, Whay HR. Current attitudes of cattle practitioners to pain and the use of analgesics in cattle. *Vet Record* 2006;159:662-8.
33. Kemp MH, Nolan AM, Cripps PJ, coll. Animal-based measurements of the severity of mastitis in dairy cows. *Vet Rec* 2008;163:175-9.
34. Kielland C, Skjerve E, Østerås O, coll. Dairy farmer attitudes and empathy toward animals are associated with animal welfare indicators. *J Dairy Sci* 2010;93:2998-3006.
35. Lohuis JACM, Van Werven T, Brand A, coll. Pharmacodynamics and pharmacokinetics of carprofen, a non-steroidal anti-inflammatory drug, in healthy cows and cows with Escherichia coi endotoxin-induced mastitis. *J vet Pharmacol Therap* 1991;14:219-29.
36. McDougall S, Bryan MA, Tiddy RM. Effect of treatment with the nonsteroidal antiinflammatory meloxicam on milk production, somatic cell count, probability of re-treatment, and culling of dairy cows with mild clinical mastitis. *J Dairy Sci* 2009;92:4421-31.
37. Medrano-Galarza C, Gibbons J, Wagner S, coll. Behavioral changes in dairy cows with mastitis. *J Dairy Sci* 2012;95:6994-7002.
38. Milne MH, Nolan AM, Cripps PJ, coll. Preliminary results of a study on pain assessment in clinical mastitis in dairy cows. Proc British Mastitis Conference 2003;117-9. <http://www.britishmastitisconference.org.uk/>
39. Morkoç AC, Hurley WL, Whitmore HL, coll. Bovine Acute Mastitis: effects of intravenous sodium salicylate on endotoxin-induced intramammary inflammation. *J Dairy Sci* 1993;76:2579-88.
40. OIE - La science appliquée au bien-être animal : document préparatoire à la Conférence mondiale sur le bien-être animal. Paris, 23-25 février 2004:352. [http://web.oie.int/fr/welfare\\_2004/Context%20paper.htm](http://web.oie.int/fr/welfare_2004/Context%20paper.htm)
41. OIE - Code sanitaire pour les animaux terrestres, 2014. [http://www.oie.int/index.php?id=169&L=1&htmlfile=chapitre\\_aw\\_introduction.htm](http://www.oie.int/index.php?id=169&L=1&htmlfile=chapitre_aw_introduction.htm)
42. Otto KA, Short CE. Pharmaceutical control of pain in large animals. *Appl Anim Behav Sci* 1998;59:157-169.
43. Popescu S, Borda C, Diugan EA, coll. The effect of the housing system on the welfare quality of dairy cows. *Italian J Anim Sci* 2014;13:15-22.
44. Porcher J. Le "bien-être animal" existe-t-il ? *Économie rurale* 2005;285:88-94. <http://economie-rurale.revues.org/3148>
45. Regula G, Danuser J, Spycher B, coll. Health and welfare of dairy cows in different husbandry systems in Switzerland. *Prev Vet Med* 2004;66:247-64
46. Shpigel NY, Chen R, Winkler M, coll. Anti-inflammatory ketoprofen in the treatment of field cases of bovine mastitis. *Res Vet Sci* 1994;56:62-8.
47. Shpigel NY, Winkler M, Saran A, coll. The Anti-inflammatory drugs phenylbutazone and dipyrone in the treatment of field cases of bovine mastitis. *J Vet Med A* 1996;43:331-6.
48. Siivonen J, Taponen S, Hovinen M, coll. Impact of acute clinical mastitis on cow behaviour. *Appl Anim Behav Sci* 2011;132:101-6.
49. Smith GW, Davis JL, Tell LA, coll. Extralabel use of nonsteroidal anti-inflammatory drugs in cattle. *JAVMA* 2008;232:697-701.
50. Vangroenweghe F, Duchateau L, Boutet P, coll. Effect of carprofen treatment following experimentally induced escherichia coli mastitis in primiparous cows. *J Dairy Sci* 2005;88:2361-76.
51. Vanhoacker F, Verbeke W, Van Poucke E, coll. Do citizens and farmers interpret the concept of farm animal welfare differently ? *Livestock prod sci* 2008;116:126-36.
52. Ward WR, Hughes JW, Faull WB, coll. Observational study of temperature, moisture, pH and bacteriain straw bedding, and faecal consistency, cleanliness and mastitisin cows in four dairy herds. *Vet Rec* 2002;151:199-206.
53. Welfare Quality®. Assessment protocol for cattle. Welfare Quality® Consortium, Lelystad, The Netherlands, 2009:142. <http://www.welfarequality-network.net/network/45627/9/0/40>
54. Zdanowicz M, Shelford JA, Tucker CB, coll. Bacterial populations on teat ends of dairy cows housed in free stalls and bedded with either sand or sawdust. *J Dairy Sci* 2004;87:1694-1701.