Journal of Dairy Science Interpretive Summary

August 2004 (87:2420-2432)

The Bovine Innate Immune Response to Klebsiella pneumoniae-Induced Mastitis. By Bannerman et al., page 2420. Klebsiella pneumoniae is a bacterial pathogen that induces mastitis. Antibiotic treatment of mastitis induced by this pathogen remains suboptimal. The ability of bacteria to establish infection is due to both innate properties of the bacteria itself and the ability of the host to mount an immune/inflammatory response to the bacteria. This study characterizes the innate immune response of cows to intramammary infection with Klebsiella pneumoniae and increases our understanding of mammary host defense mechanisms. Further, this study identifies temporal relationships between the upregulation of proinflammatory cytokines and mammary inflammatory responses that occur during infection.