

analysis assay of interaction, and other factors. So interaction of combined mycotoxins should be determined or re-validated in continuously toxicological data.

Key Words: ochratoxin A, zearalenone, α -zearalenol

1058 (T098) Efficacy of various levels of mycotoxin adsorbent to reduce aflatoxin M1 levels in milk of lactation cows fed aflatoxin B1. M. Dehghan banadaky¹, R. Motameny², and S. Parhizkar¹, ¹Dep. of Animal Science, Faculty of Agriculture, University of Tehran, Karaj, Iran, ²Azad University, Tehran, Iran, ³University of Tehran, Karaj, Iran.

The aim of this study was to compare the ability of various levels of adsorbent Biotox (Biochem GmbH, Lohne, Germany) to reduce Aflatoxin in milk of Holstein cows. Twenty-four lactating Holstein cows in mid lactation were assigned to one of three treatments ($n = 8$) for 35 d. Diet formulated according to the nutrient requirements of dairy cattle (NRC, 2001). The following treatments were investigated 1- Aflatoxin diet plus

1059 (T099) Inhibitory activity of *Staphylococcus aureus* against *Lactococcus* spp. isolated from artisanal Minas cheese. F. F. Angelo¹, L. M. Fonseca^{2,3}, and M. A. V. P. Brito⁴, ¹Universidade Federal da Paraíba/CTDR, João Pessoa, Brazil, ²Universidade Federal de Minas Gerais (School of Veterinary Medicine), Belo Horizonte, Brazil, ³University of Wisconsin-Madison/CAPES Est. Senior 18183-12-3, Madison, ⁴EMBRAPA Gado de Leite (CNPGL), Juiz de Fora, Brazil.

Production of antimicrobial substances by *Staphylococcus aureus* isolated from food has been reported. Since it is a highly prevalent etiologic agent for mastitis in dairy herds, inhibition of starter culture due to *S. aureus* inhibitory activity is possible during the processing of fermented dairy products, such as cheeses. The objective of the current work was to evaluate the antimicrobial substances produced by samples of *S. aureus* isolated from cow's milk during mastitis occurrence and their effect against strains of *Lactococcus* spp. Individual milk samples,

obtained from 54 herds, were analyzed for *S. aureus* presence and isolated strains were tested for inhibitory activity using the deferred-antagonism assay, with *Corynebacterium fimi* (NCTC 7547) as indicator. Proteic nature of the antimicrobial substances was investigated using protease type XIV from *Streptomyces griseus* (Sigma P-5147). Inhibitory spectrum was tested against nine *Lactococcus* spp. strains, previously isolated from artisanal Minas cheese. Descriptive statistics was used. Antimicrobial activity using the deferred-antagonism assay was detected in 262 (40%) of the 655 *S. aureus* strains tested. All 262 strains were inactivated by a proteolytic enzyme tested, indicating their proteic nature, a characteristic of bacteriocins. From 262 positive strains, 55 were selected based on the diameter of inhibition zone (> 10 mm) for inhibitory activity against *Lactococcus* spp. Noteworthy, 42 strains (76%) presented some inhibitory activity against *Lactococcus* spp., and one strain of *S. aureus* presented inhibitory activity against five *Lactococcus* spp. strains. The results indicate that some *S. aureus* strains inhibit samples of *Lactococcus* spp. isolated from artisanal Minas cheese. Additional work is recommended to investigate further implications of this finding.

Key Words: *Staphylococcus aureus*, bacteriocins, mastitis

1060 (T100) Microbiological quality and safety of commercial local yogurt products in Giza

standardized hygienic quality control practices in place to ensure the highest yogurt quality. Therefore, the implementation of HACCP or an equivalent safety protocol is paramount in preventing future outbreaks of foodborne illness in such popular dairy products in Egypt.

Key Words: yogurt, foodborne, quality.

1061 (T101) Stability of 10 β -lactam antibiotics in raw milk under different storage conditions. H. Wang^{1,2}, N. Zheng^{1,3}, F. Wen^{1,3}, H. Wang², and J. Wang^{1,3}, ¹Ministry of Agriculture - Laboratory of Quality & Safety Risk Assessment for Dairy Products, Beijing, China, ²College of Animal Science and Technology, Yangzhou University, China, ³State Key Laboratory of Animal Nutrition, Institute of Animal Science, Chinese Academy of Agricultural Sciences, Beijing, China.

β -lactam antibiotics are used to cure mastitis which inflicts severe economic losses in dairy farming. However, improper use of antibiotics may lead to residues in milk, which could be toxic and dangerous for human health, and may cause allergic reactions and antimicrobial resistance. At present, several methods for detecting the residue of β -lactam require milk samples to be sent back to a testing laboratory and stored until further analysis. In this study, we attempted to evaluate the sta-