Assessment of Microbiological Feed Safety from Serbian Market from 2013 to 2017

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Abstract : The expansion of population imposes increase in usage of animal meat, on whose quality directly affects the quality of the feed that the animals are fed with. The selection of raw materials, hygiene during the technological process, various hydrothermal treatments, methods of mixing etc. have an influence on the quality of feed. Monitoring of the feed is very important to obtain information about the quality of feed and the possible prevention of animal diseases which can lead to different human diseases outbreaks. In this study parameters of feed safety were monitored. According to the mentioned, the goal of this study was to evaluate microbiological safety of feed (feedstuffs and complete mixtures). Total number of analyzed samples was 4399. Analyzed feed samples were collected in various retail shops and feed factories during the period of 44 months (from January 2013 untill September 2017). Samples were analyzed on Salmonella spp. and Clostridium perfringens in quantity of 50g according to Serbian regulation. All microorganisms were tested according to ISO methodology: Salmonella spp. ISO 6579:2002 and Clostridium perfringens ISO 7937:2004. Out of 4399 analyzed feed samples 97,5% were satisfactory and 2,5% unsatisfactory concerning Salmonella spp. As far as Clostridium perfringens is concerned 100% of analyzed samples were satisfactory. The obtained results suggest that technological processing of feed in Serbia is at high level when it comes to safety and hygiene of the products, but there are still possibilities for progress and improvement which only can be reached trough the permanent monitoring of feed.

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