

3rd International Conference on

Agricultural Engineering and Food Security

November 12-13, 2018 | Berlin, Germany

Traceability, food safety and quality of corn grain in post-harvest and storage for the production of poultries in Brazil

Paulo Carteri Coradi¹, Adílio Flauzino Lacerda Filho², José Benício Paes Chaves² and Luiz Fernando Teixeira Albino²¹Federal University of Santa Maria, Brazil²Federal University of Viçosa, Brazil

In the Brazil, the corn is the most widely used raw material in poultry diets as energy source, however, their production does not occur all year round and it is necessary to store some of the grain during the off season to have sufficient raw material for feeding the animals. The regions with the highest grain production of corn in Brazil presented with extreme weather conditions that can be decisive for the product quality in the storage. The aim of this study was to evaluate the post-harvest effects of corn grains during storage at different temperature and relative humidity conditions, characterizing different Brazilian productive regions, on the safety and quality of processed feed and changes in production and yield of cutting poultries. Regardless of storage conditions, bacterial growth was directly related to the quality of the initial product and the storage time. The storage of corn grains in regions of warm, dry air reduced the risk of incidence of fungi, regardless of initial quality of the stored product. Over increased storage time the risk of aflatoxins and fumonisins, reaching levels above acceptable limits for the quality of stored corn. Yield and production of poultry have changed in function of the quality of stored corn grains and processed feeds. The traceability in the poultry production chain from post-harvest and storage of the raw material to the final production allowed determining the main critical points of control, regarding products and processes, collaborating on food safety and quality in the Brazilian context.

Biography

Paulo Carteri Coradi holds a Bachelor's degree in Agricultural Engineering at Federal University of Pelotas (2005), Master's Degree in Agricultural Engineering at Federal University of Lavras (2006) and a PhD in Agricultural Engineering at Federal University of Viçosa (2010) and Kansas State University, USA. He is a Post-doctor in Engineering of Post-Harvesting of Agricultural Products at Federal University of Viçosa (2012). Since 2011, he is working as Adjunct Professor at the Federal University of Santa Maria (UFSM), coordinator of the Agricultural Engineering Undergraduate Program and serves as Permanent Professor at the Postgraduate Program in Agricultural Engineering at UFSM. He is a member of the Editorial Board of the Brazilian Journal of Agricultural Engineering, and reviewer of scientific journals. He has experience in the field of agricultural engineering, with emphasis on engineering of processing and technology of post-harvesting of agricultural products.

paulocoradi@yahoo.com.br

Notes: