



Seminars in Biotechnology BTEC 592 & BTEC 692

“Risk Assessment of Genetically Modified Plants and Derived Food and Feed”

Thursday, May 27, 2021

13:30

Online Seminar

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She received her Ph.D. from the Hacettepe University in 2002 where her research focus was molecular identification and characterization of Lactic Acid Bacteria. Between 2002-2005, she founded and worked at the first molecular biology laboratory on the detection and quantification genetically modified crops at the Ankara Food Control Laboratory, Ministry of Agriculture. In 2005, she received a postdoctoral position from Middle East Technical University (METU), Molecular Biology and Biotechnology R&D Center. From 2005-2015, she conducted research as a head of the Genome Analysis Laboratory at the METU (Ankara), where her research contributed to the understanding of the functional genomics and genetically modified organisms including microorganisms. In 2006, short term, she moved to Wageningen University & Research, where she was a Prof. Dr. Leo De Graff Postdoctoral Fellow in the laboratory of Fungal Genomics. During this time, she expanded her research interests to focus on the functional genomics of plants such as wheat and barley, using the microarray analysis model.

In 2015, she accepted a position at Hacettepe University as an Associate Professor. At the same year she awarded with Borlaug Fellowship on risk assessment of GMOs at the Michigan State University (MSU), Food Toxicology and Molecular Biology Department. Since 2015, her laboratory at the Hacettepe University has worked to identify food microorganisms from Anatolia via molecular microbiological techniques; to develop new methods, proficiency tests and reference materials to analyses GMOs; and to use probiotics for functional foods. In parallel to these studies, research in her laboratory has also expanded into the area of DNA-nanosensor technology for the detection of microorganisms and GMOs. Since 2017, Dr. Yilmaz also serves as the Associate Chair for International Food Biosafety and Biotechnology R&E Center.

Abstract

In Turkey, we have prepared the “Technical guideline for the risk assessment of genetically modified plants and derived food and feed” under the auspices of the UNEP/GEF National Biosafety Implementation Project. Genetically modifications are likely to be detected through the comprehensive comparison of agronomic, phenotypic, molecular, and compositional characteristics of the GM crop and derived food or feed with those of near-isogenic and other conventional non-GM varieties conducted as part of the assessment. Risk assessment should be carried out in a scientifically sound and transparent manner, and can take into account expert advice of, and guidelines developed by relevant international organizations. Before preparation of this guideline, two workshops organized at the international level and national level in Turkey. In here, the presentation focused on key critical thematic issues in risk assessment, risk management and socio-economic considerations in support of biosafety decision making and the guideline.

Reference

R. Yilmaz, C. Bayraç, Technical Guideline for the Risk Assessment of Genetically Engineering Crops and Derived Food and Feed, Ankara, TAGEM and UNEP, 2017, 1-66.