



P33. MAXIMUM RESIDUE LEVELS FOR BIOCIDES USED IN THE FIELD OF PUBLIC HEALTH IN TURKEY

Orkun Barış Kovancı¹, İlker Durmuş², Ertuğrul Aksoy³

¹Department of Plant Protection, Faculty of Agriculture, Uludag University, Bursa, Turkey

²Zeropest Environmental Health Services, Demirci District, Gumusluk Str., No:30B/A, Bursa, Turkey

³Department of Soil Science and Plant Nutrition, Faculty of Agriculture, Uludag University, Bursa, Turkey

The use of various biocidal products may result in residues in food, homes, animal housing. Among these are disinfectants and insecticides used for public health, products for veterinary hygiene and in-can preservatives. Although maximum residue levels (MRLs) for plant protection products (PPPs) and veterinary medicinal products (VMPs) are regulated by the Turkish Food Codex Article No. 2014/29099 and 2012/28282, respectively, no such regulation exists for biocidal products. On the other hand, MRLs should be set for authorisation of biocides according to the European Union (EU) Regulation No. 528/2012. The objective of this study was to provide consideration on how and when to set specific MRLs for high-risk biocides by using case studies and examples from EU countries. Previous monitoring studies in problematic food areas as well as the need for dietary risk assessments were evaluated. In addition, the possibility of taking MRLs already set for PPPs and VMPs were examined. Within the framework of "As Low As Reasonably Achievable (ALARA)" principle, risk mitigation measures including removing or covering food and feed before biocide application, and making treatment out of reach of livestock may be recommended to minimize residues. MRLs already exist for the same active substance used as both biocides and PPPs or VMPs can be taken over by biocides. For example, MRL values for diethyltoluamide can be adopted as 0.01 mg/kg. Alternatively, all biocide MRLs can be set at default level of 0.01 mg/kg without determining the limit of quantitation for each active substance. However, a general MRL value may restrict the use of certain disinfectants such as quaternary ammonium chloride and paratoluene sulfonic acid, which have higher MRLs of 0.5 and 0.1 mg/kg, respectively, than 0.01 mg/kg. Merging MRLs in Turkish Food Codex Article 2014/29099 with 2012/28282, and adding additional food groups for biocides is an alternative solution.

Keywords: Biocides, Dietary Risk Assessment, Food Safety, Maximum Residue Levels, Monitoring