

P42: ROBUST PROCESSING METHOD TO PRODUCE CANDIDATE REFERENCE MATERIAL FOR OCHRATOXIN A IN WHEAT

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Ochratoxin A is structurally related compounds produced as secondary metabolites mainly by toxigenic strains of *Aspergillus* and *Penicillium* species in/on food and feeds. Among the mycotoxins, ochratoxin A has several toxicological effects such as nephrotoxic, hepatotoxic, neurotoxic, teratogenic and immunotoxic. As a result of their potential threat for health, regulations on mycotoxins have been established in many countries in order to protect consumers from their harmful effects. Based on the regulatory limits, accurate and reliable determination of mycotoxins in foods becomes very important for food safety and international trade. The traceability of ochratoxin A measurement results can be achieved through the use of a matrix reference material (RM) and proficiency tests (PT). The proposed material is a candidate RM for the determination of ochratoxin A level in wheat. Production of RM includes steps of planning, feasibility, processing, homogeneity and stability tests, and characterization. Processing of raw material, selection of the units for the homogeneity and stability tests and within-lab characterization for real scale production have been carried out, and material was ready to be distributed to laboratories as PT in order to control the accuracy of their results. Raw material was blended by a blade mixer, ground, sieved and vacuum packed in aluminium packages. The validated standard method was used for determination of ochratoxin A. Relative standard deviations achieved were less than 8%.

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