Evaluation of pesticide residues in wheat grains and its products from Algeria

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Description :

The presence of pesticide residues in wheat grains and its products produced and imported in Algeria was determined using QuEchERS extraction method and multi-residue analysis by gas chromatography–mass spectrometry. Among the 80 wheat samples analysed, detectable residues were found in 62.5% of samples. The most often pesticide found was pirimiphos methyl in 46 samples (57.5%). A percentage of 5% of samples contained pesticide residues above Maximum Residue Limits (MRLs) due to benalaxyl, chlorpyrifos and metalaxyl residues. Risk assessment for long-term exposure was done for all pesticides detected in wheat grains, the risk of exposure of Algerian consumers to pirimiphos methyl residues through wheat consumption was potentially high (EDI = 78%ADI). This risk was less important in the case of

chlorpyrifos (EDI<9% ADI). For the others residues, EDIs were less than 1.5% of ADIs.

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