

**Title** Fusarium mycotoxins in wheat samples harvested in Serbia: A preliminary survey  
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#### **Abstract**

The objective of this study was to determine the occurrence of trichothecenes of both the A-type and B-type, masked mycotoxin derived from DON - deoxynivalenol-3-glucoside (DON-3-Glc), 3- and 15-acetyldeoxynivalenol (ADONs), fusarenon-X (FUS-X) and nivalenol (NIV)) as well as zearalenone (ZON) in winter wheat. Total of 54 samples were collected during the harvest of 2007 representing the most important Serbian wheat-growing regions. The samples were prepared by one-step simple method and analyzed by high performance liquid chromatography coupled to tandem mass spectrometry (LC-MS/MS). The obtained recoveries proved that the used method could be successfully applied for multi-component analysis of *Fusarium* mycotoxins. DON, DON-3-Glc and HT-2 contents were detected approximately in 28%, 13% and 6% of the total number of samples, respectively. The amount of these toxins ranged from 17 µg/kg for DON-3-Glc to 309 µg/kg for DON. ADONs, FUS-X, NIV, T-2 toxin as well as ZON were below the limit of detection. Different susceptibility of wheat cultivars towards detected mycotoxins was observed. The results were compared to the EC Regulative and with available the literature data concerning the neighboring countries. This is first report on the simultaneous presence of 8 *Fusarium* mycotoxins in the wheat cultivated in the Balkan Countries region.