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### Survey of Natural Occurrences of Trichothecene Mycotoxins and Zearalenone in Korean Cereals Harvested in 1995 using GC/MS.

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For the survey of natural occurrences of trichothecene mycotoxins produced by the species of fungi imperfecti such as *Fusarium*, *Trichothecium*, a sensitive method was developed for the simultaneous detection and quantitation of the major trichothecene mycotoxins such as T-2 toxin(T-2), HT-2 toxin (HT-2), nivalenol(NIV), fusarenon-X(F-X), deoxynivalenol(DON), 3-acetyl deoxynivalenol (3-AcDON), and zearalenone(ZEN) using gas chromatography/mass spectrometry- selected ion monitoring (GC/MS-SIM) mode after trimethylsilyl derivatization. The incidences(%) of NIV and DON in 15 barley samples were 93 and 73, respectively. And the average contents(ng/g) of NIV and DON were 406 (range 11-1878), 291 (range 10-1143) respectively. In 15 corn samples, the incidences(%) of NIV and DON were 47 and 33 and the average contents(ng/g) were 365 and 74 respectively. The overall average incidences of NIV and DON in barley and corn were above 33%, and the total average contents(ng/g) of those were 392 and 223, respectively.

These results suggests that NIV and DON were the major contaminating trichothecene mycotoxins in Korean barley and corn samples harvested in 1995.

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