



Mycotoxin Contamination in Food and Agricultural Products Data-Based

by Biological Reference Laboratory Center (BRLC), National Institute of Reference Laboratories (NIRL), Department of Science Service (DSS)

Data from “The Study of Mycotoxin Contamination in Agricultural Products Project”, which is financially supported by the Fundamental Fund (2025) of the Thailand Science Research and Innovation (TSRI)

Aflatoxin

Year	Sample name	Sample type	Sample Source	Source Category	Aflatoxin Contamination (µg/kg)					Note
					Aflatoxin B1	Aflatoxin B2	Aflatoxin G1	Aflatoxin G2	Total Aflatoxin	
2025	Corn / Maize	Sweet corn 1	Chai Nat	Farm site	nd	nd	nd	nd	nd	
		Sweet corn 2	Bangkok	Sampling site	nd	nd	nd	nd	nd	
		Waxy corn	Bangkok	Sampling site	nd	nd	nd	nd	nd	
		Feed Maize 1 (full grain)	Bangkok	Sampling site	7.29	0.50	nd	nd	7.79	
		Feed Maize 2 (full grain)	Bangkok	Sampling site	1.69	nd	nd	nd	1.69	
		Feed Maize 3 (full grain)	Bangkok	Sampling site	nd	nd	nd	nd	nd	
		Feed Maize 4 (coarsely ground)	Bangkok	Sampling site	0.85	nd	nd	nd	0.85	
		Feed Maize 5 (coarsely ground)	Bangkok	Sampling site	nd	nd	nd	nd	nd	
		Feed Maize 6	Bangkok	Sampling site	13.9	1.19	nd	nd	15.1	

		(finely ground)								
		Feed Maize 7 (finely ground)	Bangkok	Sampling site	4.09	0.43	nd	nd	4.52	
		Feed Maize 8 (finely ground)	Bangkok	Sampling site	nd	nd	nd	nd	nd	
		Feed Maize 9 (finely ground)	Bangkok	Sampling site	nd	nd	nd	nd	nd	
		Feed Maize (seed)	Nakhon Ratchasima	Sampling site	nd	nd	nd	nd	nd	
		Sweet corn (seed)	Nakhon Ratchasima	Sampling site	nd	nd	nd	nd	nd	
		Waxy Corn (seed)	Nakhon Ratchasima	Sampling site	nd	nd	nd	nd	nd	
	Corn Flour	Corn Flour 1	Ayutthaya	Production site	nd	nd	nd	nd	nd	
		Corn Flour 2	Ayutthaya	Production site	nd	nd	nd	nd	nd	
		Corn Flour 3	Ayutthaya	Production site	nd	nd	nd	nd	nd	
		Corn Starch	Bangkok	Packaging site	nd	nd	nd	nd	nd	
		Corn Flour 4	Samut Prakan	Packaging site	nd	nd	nd	nd	nd	
		Corn Flour 5	Chachoengsao	Production site	nd	nd	nd	nd	nd	
		Corn Flour 6	Ayutthaya	Production site	nd	nd	nd	nd	nd	
		Corn Flour 7	Nakhon Pathom	Packaging site	nd	nd	nd	nd	nd	

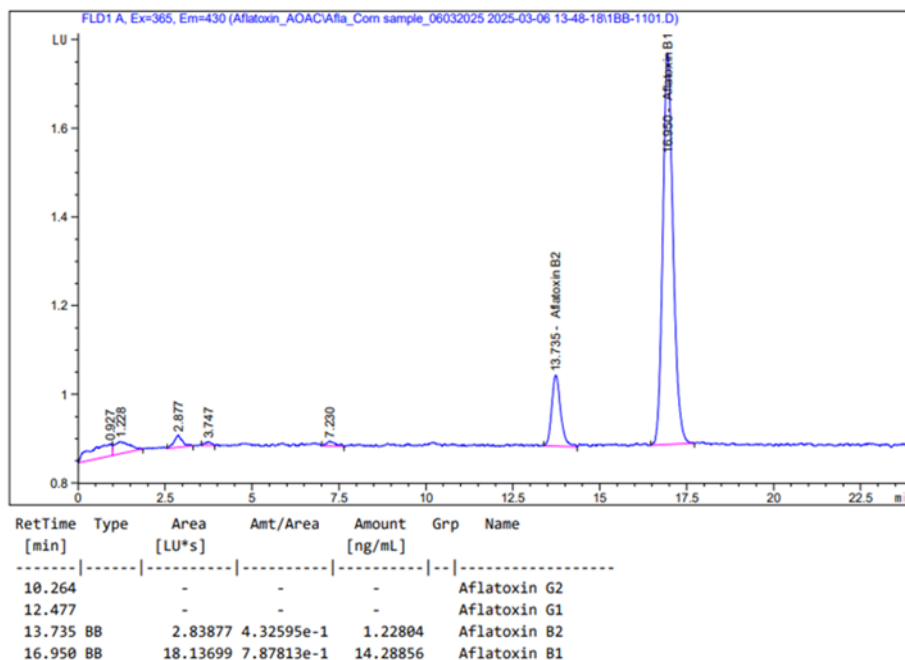
Note : nd = not detected

Fumonisin

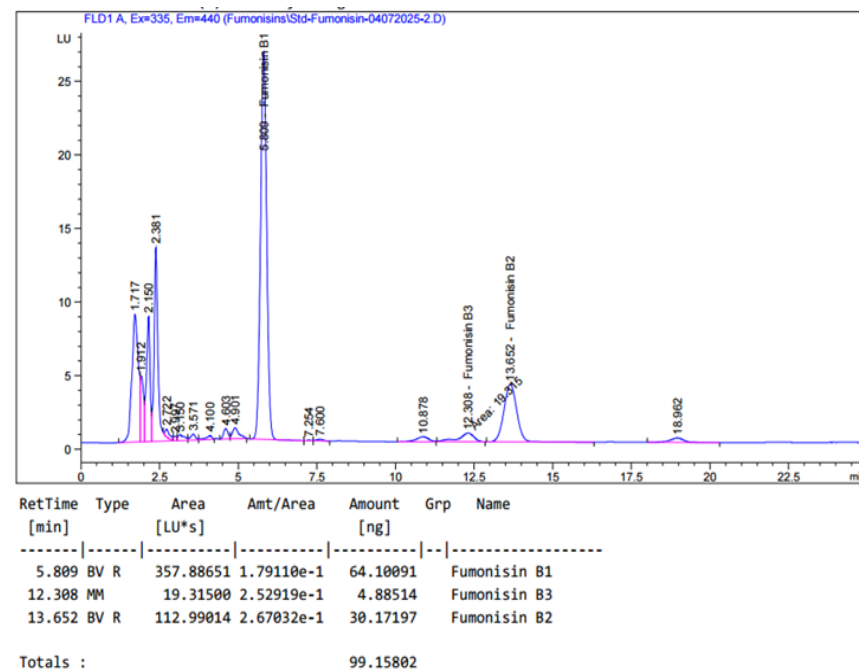
Year	Sample name	Sample type	Sample Source	Source Category	Fumonisin Contamination (µg/kg)				Note
					Fumonisin B1	Fumonisin B2	Fumonisin B3	Total Fumonisin (B1+B2)	
2025	Corn / Maize	Sweet corn 1	Chai Nat	Farm site	nd	nd	nd	nd	
		Sweet corn 2	Bangkok	Sampling site	85.3	nd	106.0	85.3	
		Waxy corn	Bangkok	Sampling site	173.8	nd	95.7	173.8	
		Feed Maize 1 (full grain)	Bangkok	Sampling site	498.9	207.6	114.3	706.6	
		Feed Maize 2 (full grain)	Bangkok	Sampling site	129.7	nd	nd	129.7	
		Feed Maize 3 (full grain)	Bangkok	Sampling site	222.7	nd	nd	222.7	
		Feed Maize 4 (coarsely ground)	Bangkok	Sampling site	324.0	152.4	103.4	476.3	
		Feed Maize 5 (coarsely ground)	Bangkok	Sampling site	549.3	299.4	110.0	848.7	
		Feed Maize 6 (finely ground)	Bangkok	Sampling site	512.3	202.4	113.1	714.7	
		Feed Maize 7 (finely ground)	Bangkok	Sampling site	406.8	nd	70.0	406.8	
		Feed Maize 8	Bangkok	Sampling site	100.5	nd	nd	100.5	

		(finely ground)							
		Feed Maize 9 (finely ground)	Bangkok	Sampling site	631.3	281.6	114.0	912.9	
		Feed Maize (seed)	Nakhon Ratchasima	Sampling site	139.9	nd	94.9	139.9	
		Sweet corn (seed)	Nakhon Ratchasima	Sampling site	1,748.9	778.1	298.1	2,527.0	
		Waxy Corn (seed)	Nakhon Ratchasima	Sampling site	3,197.1	1,504.8	243.6	4,701.9	
	Corn Flour	Corn Flour 1	Ayutthaya	Production site	70.3	nd	nd	70.3	
		Corn Flour 2	Ayutthaya	Production site	nd	nd	nd	nd	
		Corn Flour 3	Ayutthaya	Production site	78.9	nd	nd	78.9	
		Corn Flour 4	Samut Prakan	Packaging site	nd	nd	nd	nd	
		Corn Flour 5	Chachoengsao	Production site	84.8	nd	nd	84.8	
		Corn Flour 6	Ayutthaya	Production site	75.8	nd	nd	75.8	
		Corn Flour 7	Nakhon Pathom	Packaging site	143.8	nd	nd	143.8	
		Corn Starch	Bangkok	Packaging site	nd	nd	nd	nd	

Note : nd = not detected



Chromatograms of HPLC analysis of Aflatoxins in Feed Maize



Chromatograms of HPLC analysis of Fumonisins in Feed Maize

Mycotoxin	Test method	Limit of Detection (LOD)		Limit of Quantitation (LOQ)	
		µg/kg		µg/kg	
Aflatoxin B1	In-house method based on AOAC (2023) 993.17	0.6		1.5	
Aflatoxin B2		0.6		1.5	
Aflatoxin G1		0.6		1.5	
Aflatoxin G2		0.6		1.5	
Fumonisin B1	In-house method based on AOAC (2023) 2001.04	15.0		50.0	
Fumonisin B2		15.0		50.0	
Fumonisin B3		15.0		50.0	