Services and contract work

MYTOX

Group	Matrix
Screening and confirmation or quantitative determination of **mycotoxins**: zearalenone, deoxynivalenol, ochratoxin A, fumonisin B1, fumonisin B2, fumonisin B3, T-2 toxin, HT-2 toxin, aflatoxin B1, aflatoxin B2, aflatoxin G1, aflatoxin G2, nivalenol, neosolaniol, fusarenon-X, 3-acetyldeoxynivalenol, 15-acetyldeoxynivalenol, diacetoxyscirpenol, roquefortine C, altenuene, alternariol, alternariol methylether, enniatin B and sterigmatocystin	feed (LC-MS/MS)
Quantitative determination of **ergot alkaloids**: ergocornine, ergocristine, ergocryptine, ergometrine, ergosine, ergotamine, ergocorninine, ergocristinine, ergocryptinine, ergometrinine, ergosinine and ergotaminine	cereals and feed (LC-MS/MS)
Quantitative determination of **modified mycotoxins**: deoxynivalenol-3-glucoside, 3-acetyldeoxynivalenol, 15-acetyldeoxynivalenol, α-zearalenol, β-zearalenol, zearalenone-4-glucoside, α-zearalenol-4-glucoside, β-zearalenol-4-glucoside and zearalenone-4-sulfate	cereals and feed (LC-MS/MS)
Quantitative determination of **mycotoxins** and **ergot alkaloids:** zearalenone, zearalanone, deoxynivalenol, ochratoxin A, ochratoxin alpha, fumonisin B1, fumonisin B2, fumonisin B3, T-2 toxin, T-2 toxin- triol, HT-2 toxin, aflatoxin B1, aflatoxin B2, aflatoxin G1, aflatoxin G2, aflatoxin M1, nivalenol, neosolaniol, fusarenon-X, sum 3-acetyldeoxynivalenol + 15-acetyldeoxynivalenol, diacetoxyscirpenol, roquefortine C, citrinine, sterigmatocystin, deoxynivalenol-3-glucoside, deepoxy-deoxynivalenol, α-zearalenol, ergocornine, ergocristine, ergocryptine, ergometrine, ergosine, ergotamine, ergocorninine, ergocristinine, ergocryptinine, ergometrinine, ergosinine and ergotaminine, methylergometrine, dihydroergotamine.	urine, feces, blood and other biological fluids (human and animal) (LC-MS/MS – LC-HRMS)
Screening of **mycotoxins**: T-2 toxin-tetraol, HT-2-toxin-3-glucuronide, zearalenone-14- glucuronide, zearalenone-16- glucuronide, ochratoxin B, 4-hydroxyl- ochratoxin, ochratoxin B-glutathione, 15-monoacetoxyscirpenol	
Screening and confirmation or quantitative determination of **mycotoxins**: zearalenone, deoxynivalenol, ochratoxin A, fumonisin B1, fumonisin B2, fumonisin B3, T-2 toxin, HT-2 toxin, aflatoxin B1, aflatoxin B2, aflatoxin G1, aflatoxin G2, nivalenol, neosolaniol, fusarenon-X, 3-acetyldeoxynivalenol, 15-acetyldeoxynivalenol, diacetoxyscirpenol, roquefortine C, alternariol, alternariol methylether, sterigmatocystin, enniatin B, deoxynivalenol-3-glucoside, α-zearalenol and β-zearalenol	sorghum, spices, rice, millet, cassava, yam, soybean, soil (LC-MS/MS)
Screening and confirmation of **metabolites** produced by *Aspergillus flavus*	medium (UHPLC-HRMS)
Quantitative determination of **mycotoxins:** cereulide, beauvericin, enniatin A, enniatin A1, enniatin B en enniatin B1	maize, wheat, rice, pasta (LC-MS/MS)

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Quantitative determination of *Alternaria* **toxins:** alternariol, alternariol monomethyl ether, tenuazonic acid, tentoxin, altenuene, altertoxin-I, alternariol-3-glucoside, alternariol-3-sulfate, alternariol monomethylether-3-glucoside, alternariol monomethyl ether-3-sulfate	tomato products, fruit and vegetable juices (LC-MS/MS)
In vitro **determination** of the **binder capacity** of mycotoxins for feed-binders	binders (LC-MS/MS)
In vitro **determination:** IPEC-based model simulating the intestinal barrier for efficacy and safety testing of detoxifiers (incl. intestinal absorption, viability testing and TEER)	binders and animal-exposure to mycotoxins
In vivo **determination**: different models for evaluating detoxifiers (bolus or in feed administration) using mycotoxin toxicokinetic parameters; other safety testing models and exposure assessment of animals to mycotoxins	binders and animal-exposure to mycotoxins
Identification of toxigenic fungi to a species level using PCR-based approaches	all matrices
Quantification of toxigenic fungal species using QPCR-based approaches	all matrices
Assessment of the **biodegrading and detoxification capacity** of microbial strains and consortia using validated bio-assays	Not applicable
Phenomics: validation of **biostimulants and agrochemicals** to control toxigenic plant pathogenic fungi (and other plant pathogenic organisms) using a High-throughput sensor-to-plant phenotyping and micro-dispenser platform to analyze biotic- and abiotic plant stress	wheat, rice, *Arabidopsis*, potato, bean, tomato,...
Within MYTOX we provide also…	
Quantitative determination of **minerals**	feed, food, fertilizers, water, manure, soil, compost, animal tissue and air
Screening and quantitative determination of **organic components**	feed, food, fertilizers, water, manure, soil, compost and air
Occupational hygiene: active and passive sampling • indoor air analysis • respirable and inhalable dust • quartz • minerals • organic components	air (FOD - WASO accredited)