EURL mycotoxins & plant toxins
EURLWS-MP06
Agenda
3-4 October 2023
Van der Valk, Veenendaal

1st day, Tuesday, 3rd October 2023		
09:00	Coffee	
09:15	Welcome	Linda Stolker (WFSR)
09:20	Agenda; Introduction	Josipa Grzetic Martens (EURL)
09:30	Update on legislation and emerging issues	Frans Verstraete (DG SANTE)
10:30	Coffee	
11:00	EURLPT-MP08 Proficiency test ergot alkaloids in cereals	Patrick Mulder (EURL)
11:15	EURLPT-MP09 Proficiency test opium alkaloids in poppy seeds and bakery products	
11:30	Glycoalkaloids in selected potato food products	Marta Sopel (EURL)
11:45	Survey on ochratoxin A occurrence in cured meat products	
12:00	High resolution MS and mycotoxins: going deeper, going broader, going further	Laura Righetti (WUR)
12:30	Lunch	
13:30	Studies on the representativeness of sampling large lots of herbs (>15 t) for their PA content and results on the handling of the aggregate sample in the laboratory	Anja These (BfR)
14:00	Sampling of cumin and culinary herbs contaminated with pyrrolizidine alkaloids	Sylvia Kalli (EURL)
14:30	Recent changes in Reference Points for adverse animal health effects for a number of mycotoxins, as established by EFSA	Ron Hoogenboom (WFSR)
15:00	Coffee break and making a group photo	
15:30	AQC discussion	Hans Mol (WFSR)
18:00	Dinner	
2nd day - Wednesday 4th October 2023		
9:00	Day 2 agenda	Josipa Grzetic Martens (EURL)
9:10	Dietary exposure to mycotoxins of 1- and 2-year-old children from a Dutch Total Diet Study	Annemieke Pustjens-D'Hamecourt (WFSR)
9:40	Natural and synthetic cannabinoids in food on Czech market	Radim Stepan (CAFIA)
10.10	Grayanotoxins in honey: EFSA opinion and analytical challenges	Patrick Mulder (EURL)
10.40	Coffee break	
11:00	AQC Wrap-up discussion	Hans Mol (EURL)
11:30	Updates on work program EURL 2023/2024 and closure	Josipa Grzetic Martens (EURL)
12:00	Lunch (to-go)	
12:15	Excursion to WFSR	WFSR Team

Studies on the representativeness of sampling large lots of herbs (>15 t) for their PA content and results on the handling of the aggregate sample in the laboratory

Anja These
German Federal Institute for Risk Assessment (BfR)

In a project initiated by the German Ministry of Food and Agriculture, different sampling methods were tested on large lots of herbs (lot weights between 15-25 t). The number and weight of incremental samples were varied, resulting in different weights of aggregate sample. The outcome of the different sampling scenarios will be presented. In addition, different grinding methods were tested in combination with different sample weights to cope with the inhomogeneity of the aggregate sample and to minimize the spread of the results.

High resolution MS and mycotoxins: going deeper, going broader, going further.

Laura Righetti
Laboratory of Organic Chemistry & Wageningen Food Safety Research, Wageningen University & Research, Wageningen, The Netherlands.
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Climate change, the circular economy and the reduced use of pesticides are increasingly affecting the mycotoxin map in Europe, leading to unpredictability in the range of mycotoxins occurring in crops and foods. In addition, plants and other living organisms can alter the chemical structure of mycotoxins as part of their defense against xenobiotics, further contributing to increase the broad spectrum of possible modified mycotoxins. In this scenario, it is critical to be prepared to "expect the unexpected" and take full advantage of the cutting-edge analytical tools such as high-resolution mass spectrometry.
This talk will cover the use of advanced MS-based approaches in the omics domain to visualize, screen, identify and quantify mycotoxins, including the use of Ion Mobility MS and MS Imaging techniques.

Natural and synthetic cannabinoids in food on Czech market

Radim Stepan, Daniela Paldusova, Petr Cuhra, Martin Kubik
Czech Agriculture and Food Inspection Authority (CAFIA)

In recent years a lot of different products containing natural and/or synthetic cannabinoids have been spread on the Czech market. Over 50 different officially collected samples of these products (e.g. gummies, cookies, jellies, shots) were analysed in CAFIA laboratory through the last year. Analytical results showed that these products mostly contain delta -9-tetrahydrocannabinol (Δ9-THC) and/or hexahydrocannabinol (HHC) as a major ingredients and other cannabinoids (e.g. tetrahydrocannabinolic acid THCA) as minor components.
Summarized results of our findings together with applied analytical method including sample preparation and LC-MS/MS conditions will be shown in the presentation.

Dietary exposure to mycotoxins of 1- and 2-year-old children from a Dutch Total Diet Study

A.M. Pustjens, J.J.M. Castenmiller, J.D. te Biesebeek, T.C. de Rijk, R.C.J. van Dam and P.E. Boon

In 2017, a Total Diet Study was conducted in the Netherlands in which mycotoxins were analysed in foods and beverages consumed by 1- and 2-year-old children. These mycotoxins were aflatoxins, Alternaria toxins, citrinin, ergot alkaloids, fumonisins, ochratoxin A, patulin, sterigmatocystin, trichothecenes, and zearalenone. Long-term exposure was calculated by combining concentrations in foods and beverages with consumed amounts of these products. Analysed foods and beverages with a concentration below the detection limit that could contain the mycotoxin, were assigned a concentration equal to half this limit value. To assess if the exposure could result in a possible health risk, the high long-term exposure (95th percentile) was compared with a health-based guidance value (HBGV) or a margin of exposure (MOE) was calculated. Exposure to aflatoxins, Alternaria toxins, ochratoxin A and T-2/HT-2 sum may pose a health concern. Foods that contributed most to the exposure of these mycotoxins were bread, biscuits, breakfast cereals, chocolates, dried fruit, follow-on formula and fruit juices.