



MycoKey Workshop - Training Course

Rapid Methods for Mycotoxin Detection in the Food/Feed Chain

November 18-22, 2019

Oil Crops Research Institute,
Chinese Academy of Agricultural Sciences (OCRI-CAAS)
Wuhan, China

Organized by:

Oil Crops Research Institute
Chinese Academy of Agricultural Sciences (OCRI-CAAS)
Wuhan, China

and

Institute of Sciences of Food Production
National Research Council of Italy (ISPA-CNR)
Bari, Italy

Instructors/Lecturers

Antonio F. Logrieco (ISPA-CNR, Italy)

Sarah De Saeger (UGENT, Belgium)

Peiwu Li (OCRI-CAAS, China)

Veronica M.T. Lattanzio (ISPA-CNR, Italy)

Vincenzo Lippolis (ISPA-CNR, Italy)

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Qi Zhang (OCRI-CAAS, China)

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Hui Li (OCRI-CAAS, China)

Jun Liang (Shanghai Tracing Biotechnology Co., China)

Jianxiang Yu (Wuhan Huamei BioEng Co., China)

Noan Nivarlet (UNISENSOR, Belgium)

Zhen Jin (Romer Labs China Ltd., China)

Danrey Toth (VICAM, a Waters Business, USA)

Liberty Sibanda (Randox Food Diagnostics, UK)

PROGRAMME

MONDAY, 18th November

8:30	Welcome address - <i>Peiwu Li (Director of National Reference Lab for Agricultural Testing, Director of Key Lab of Detection & Control for Mycotoxins, OCRI-CAAS)</i>
8:45	The MycoKey project - <i>Antonio F. Logrieco (Director of ISPA-CNR and coordinator of the MycoKey project)</i>
9:15	Introduction to the course - <i>Qi Zhang (OCRI-CAAS)</i>
9:30	Toxigenic fungi and relevant mycotoxins in the food/feed chain: human and animal health effects, risk assessment and mycotoxin legislation - <i>Antonio F. Logrieco (ISPA-CNR)</i>
10:30	<i>Coffee break and group photo</i>
11:00	Sampling and overview of methods for mycotoxin analysis - <i>Michelangelo Pascale (ISPA-CNR)</i>
12:00	<i>Lunch</i>
14:00	LC-MS methods for multi-mycotoxin analysis - <i>Sarah De Saeger (UGENT)</i>
15:00	Overview of rapid methods for mycotoxin detection - <i>Peiwu Li (OCRI-CAAS)</i>
16:00	<i>Coffee break</i>
16:15	Rapid methods/test kits for mycotoxins & practical demonstration - <i>Zhen Jin (Romer Labs China Ltd.)</i>
17:00	End of the day

TUESDAY, 19th November

8:30	Protocol for rapid strip test for total aflatoxins in peanuts - <i>Janxiang Yu (Wuhan Huamei BioEng Co.)</i>
8:45	Protocol for rapid strip test for total aflatoxins in maize - <i>Danrey Toth (VICAM)</i>
9:00	Laboratory GROUP A: Total aflatoxins in peanuts by strip test assay - <i>Janxiang Yu (Wuhan Huamei BioEng Co.)</i> GROUP B: Total aflatoxins in maize by strip test assay - <i>Danrey Toth (VICAM)</i> <i>Coffee break (15 min)</i>
12:00	<i>Lunch</i>
14:00	Laboratory GROUP A: Total aflatoxins in maize by strip test assay - <i>Danrey Toth (VICAM)</i> GROUP B: Total aflatoxins in peanuts by strip test assay - <i>Janxiang Yu (Wuhan Huamei BioEng Co.)</i> <i>Coffee break (15 min)</i>
17:00	End of the day

WEDNESDAY, 20th November

- 8:30 Protocol for multi-mycotoxin analysis in maize by strip test immunoassay - *Noan Nivralet (UNISENSOR) & Veronica Lattanzio (ISPA-CNR)*
- 8:45 Protocol for the determination of total aflatoxins in peanuts by ELISA - *Janxiang Yu (Wuhan Huamei BioEng Co.)*
Coffee break (15 min)
- 09:00 **Laboratory**
GROUP A: Multi-mycotoxin analysis in maize by strip test immunoassay - *Noan Nivralet (UNISENSOR) & Veronica Lattanzio (ISPA-CNR)*
GROUP B: Total aflatoxins in peanuts by ELISA - *Janxiang Yu (Wuhan Huamei BioEng Co.) & Qi Zhang (OCRI-CAAS)*
Coffee break (15 min)
- 12:00 Lunch**
- 14:00 **Laboratory**
GROUP A: Total aflatoxins in peanuts by ELISA - *Jangxiang Yu (Wuhan Huamei BioEng Co.) & Qi Zhang (OCRI-CAAS)*
GROUP B: Multi-mycotoxin analysis in maize by strip test immunoassay - *Noan Nivralet (UNISENSOR) & Veronica Lattanzio (ISPA-CNR)*
Coffee break (15 min)
- 17:00 End of the day

THURSDAY, 21th November

- 08:30 Protocol for IAC-LC-MS method for simultaneous determination of aflatoxins, fumonisins and T-2 toxins in maize - *Xiupin Wang & Fei Ma (OCRI CAAS)*
- 08:45 **Laboratory**
GROUP A + GROUP B: IAC-LC-MS method for simultaneous determination of aflatoxins, fumonisins and T-2 toxins in maize - *Xiupin Wang & Fei Ma (OCRI CAAS)*
Coffee break (15 min)
- 12:00 Lunch**
- 14:00 Protocol for Multiplexing the detection of mycotoxins and varying matrices on the Biochip Array Platform - *Liberty Sibanda (Randox Food Diagnostics)*
- 14:15 **Laboratory**
GROUP A + GROUP B: Multiplexing the detection of mycotoxins and varying matrices on the Biochip Array Platform - *Liberty Sibanda (Randox Food Diagnostics) & Zhaowei Zhang (OCRI CAAS)*
Coffee break (15 min)
- 17:00 End of the day
- 19:00 Workshop Dinner**

FRIDAY, 22th November

8:30	Protocol for the determination of deoxynivalenol in wheat by fluorescence polarization immunoassay (FPIA) - <i>Vincenzo Lippolis (ISPA-CNR) & Jin Mao (OCRI-CAAS)</i>
8:45	Protocol for the determination of aflatoxin B ₁ in maize by time-resolved fluorescence immunoassay (TR-FIA) - <i>Jun Liang (Shanghai Tracing Biotechnology Co.) & Jin Mao (OCRI-CAAS)</i>
9:00	Laboratory GROUP A: Deoxynivalenol in wheat by fluorescence polarization immunoassay (FPIA) - <i>Vincenzo Lippolis (ISPA-CNR) & Hui Li (OCRI-CAAS)</i> GROUP B: Aflatoxin B ₁ in maize by time-resolved fluorescence immunoassay (TR-FIA) - <i>Jun Liang (Shanghai Tracing Biotechnology Co.) & Zhaowei Zhang (OCRI-CAAS)</i> <i>Coffee break (15 min)</i>
12:00	Lunch
14:00	Laboratory GROUP A: Aflatoxin B ₁ in maize by time-resolved fluorescence immunoassay (TR-FIA) - <i>Jun Liang (Shanghai Tracing Biotechnology Co.) & Du Wang (OCRI-CAAS)</i> GROUP B: Deoxynivalenol in wheat by fluorescence polarization immunoassay (FPIA) - <i>Vincenzo Lippolis (ISPA-CNR) & Hui Li (OCRI-CAAS)</i> <i>Coffee break (15 min)</i>
17:00	Evaluation of overall results
17:30	Concluding remarks and award of certificates