The Appendix is an integral part of
Certificate of Accreditation No. 622/2014 of 01/10/2014

Accredited entity according to ČSN EN ISO/IEC 17025:2005:

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The Laboratory is qualified to update standards identifying the test procedures.
The laboratory has a flexible scope of accreditation permitted as detailed in the Annex.
Updated list of activities provided within the flexible scope of accreditation is available in the laboratory from the Quality Manager.

Tests:

Ordinal number	Test procedure/method name	Test procedure/method identification	Test object
1	Determination of elements by AAS-FT method (copper, iron, manganese, magnesium, zinc)	AAS _ FT (CH_7, CH_40, CH_20, CH_21, CH_8) (Comprehensive internal methodology) Ref. 1)	Food Biological material a)
2	Determination of elements by AAS-ETA method (cadmium, lead, chromium, nickel, molybdenum, aluminium, tin)	AAS _ ETA (CH_5, CH_6, CH_27, CH_28, CH_61, CH_37, CH_56) (Comprehensive internal methodology) Ref. 2)	Food Biological material a)
3	Determination of elements by AES method (calcium, sodium, potassium)	AES (CH_32, CH_33, CH_31) (Comprehensive internal methodology) Ref. 3)	Food Biological material a)
4	Determination of elements by AAS-HT method (total arsenic, toxicologically significant arsenic, selenium	AAS _ HT (CH_30, CH_33, CH_31) (Comprehensive internal methodology) Ref. 4)	Food Biological material a)
5	Determination of mercury by AMA 254 instrument	SOP CH_9 (Internal methodology) Ref. 5)	Food Biological material a)
6	Determination of nitrite and nitrate by ion chromatography (nitrate, nitrite and nitrate)	HPLC_NINA (CH_10, CH_11) (Comprehensive internal methodology) Ref. 6)	Food
7	Determination of iodine by spectrophoto-metric method	SOP CH_39 (Internal methodology) Ref. 7)	Food Biological material a)
8	Determination of mycotoxins by LC-FLD method (aflatoxin M1, ochratoxin A)	LC_MT (T_76, T_77, T_78, T_79) (Comprehensive internal methodology) Ref. 8)	Food Biological material a)
9	Determination of organic compounds by LC-MS/MS method 9)	LC_OL (Comprehensive internal methodology) Ref. 9)	Food Biological material a,b,c)
10	Determination of organic compound by GC-MS/MS method 10)	GC_OL (Comprehensive internal methodology) Ref. 10)	Food Biological material a)

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Ordinal number	Test procedure/method name	Test procedure/method identification	Test object
11	Determination of fatty acids by GC-FID method [11)]	SOP CH_60 (Internal methodology) [Ref. 11)]	Food Biological material [a)]
12-20	reserved		
21	Detection and identification of moulds by cultivation method (moulds, *Aspergillus flavus a Aspergiullus parasiticus, Penicillinum verrucosum*)	KM_PLISNE (T_12, T_13, T_15) (Comprehensive internal methodology) [Ref.21]	Food Biological material [b,c)]
22	Determination of yeast and moulds count (cultivation method)	ČSN ISO 21527- 1,2	Food
23	Determination of moulds contamination by method of aeroscope active sampling (environment of food processing and catering, environment of laboratory)	AVA_PLISNE (T_14, T_16) (Comprehensive internal methodology) [Ref.23]	Internal environment
24-31	reserved		
32	Detection of GMOs by PCR method [32)]	PCR_GMO (Comprehensive internal methodology) [Ref.32]	Food Biological material [b)]
33	Identification of meat by PCR method (horse meat)	PCR_MASO (T_85) (Comprehensive internal methodology) [Ref.33]	Food Biological material [c)]

ad 9) in the range: deoxynivalenol, 3-acetyldeoxynivalenol, 15-acetyldeoxynivalenol, deoxynivalenol-3-glucoside, nivalenol, fusarenon X, zearalenon, diacetoxyscirpenol, T-2, HT-2, ochratoxin A (CH_73)

ad 10) in the range: HCB, alpha-HCH, beta-HCH, gamma-HCH, delta-HCH, heptachlor, heptachloroepoxide(B), heptachloroepoxide(A), aldrin, endrin, endrinketone, dieldrin, endosulfan I, endosulfan II, endosulfansulfate, mirex, o,p´-DDE, p,p´-DDE, o,p´-DDD, p,p´-DDD, o,p´-DDT, p,p´-DDT, PCB 28, PCB 52, PCB 101, PCB 105, PCB 118, PCB 138, PCB 153, PCB 180, methoxychlor, alpha-chlordane, gamma chlordane, oxychlordane (CH_13)

ad 11) in the range: butyric acid, caproic acid, caprylic acid, capric acid, undecanoic acid, lauric acid, tridecanoic acid, myristic acid, myristoleic acid, pentadecanoic acid, cis-10-pentadecenoic acid, palmitic acid, palmitoleic acid, heptadecanoic acid, cis-10-heptadecenoic acid, stearic acid, elaidic acid, oleic acid, linolelaidic acid, linoleic acid, arachidic acid, γ-linolenic acid, cis-11-eicosenoic acid, linolenic acid, heneicosanoic acid, cis-11,14-eicosadienoic acid, behenic acid, cis-8,11,14-eicosatrienoic acid, erucic acid, cis-11,14,17-eicosatrienoic acid, arachidonic acid, tricosanoic acid, cis-13,16-docosadienoic acid, lignoceric acid, cis-5,8,11,14,17-eicosapentaenoic acid, nervonic acid, cis-4.7,10,13,16,19-docosahexaenoic acid

ad 32) in the range of: Bt63 (T_72), Bt176 (T_56), NK603 (T_62), PHW99-429 (T_61), Bt10 (T_67), CBH-351 (T_70), chloroplast gene (T_71), TC1507 (T_74), NOS (T_54), 35S (T_54), IVR (T_56), ADH1 (T_62), RoundupReadySoya (T_55), MON810 (T_56), MON88017 (T_87), MON863 (T_87), MIR604 (T_87), DAS-59122-7 (T_87), Liberty Link maize (T_56), EH92-527-1 (T_73), Sunup papaya (T_68), nptII (T_54), PG gene (T_57), GA21 (T_69)

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ad Ref. 1,3,4)
Perkin Elmer: Analytical Methods For Atomic Absorption Spectrophotometry, 1982;
Perkin Elmer: User's Guide – AAnalyst 400, Atomic absorption spectrometer, 2002
ad Ref. 2)
Perkin Elmer: Walter Slavin: Graphite furnace AAS a source book, 1991
Perkin Elmer: The THGA Graphite Furnace - Techniques and Recommended Conditions, 1999
Perkin Elmer: User's Guide – AAnalyst 600, Atomic absorption spectrometer, 2000
ad Ref. 5)
Altec s.r.o.: Operating manual AMA 254
ad Ref 6)
ČSN EN 12014: 1998
ad Ref 7)
D.L. MAHESH, Y.G. DEOSTHALE, B.S.NARASINGA RAO. A sensitive kinetic assay for the determination of iodine in foodstuffs. *Food Chemistry*, 1992, Volume 43, Issue 1, Pages 51-56
AYIANNIDIS K., VOULGAROPOULOS N. Catalytic Determination of Iodine in Biological Materials. *Analyst*, 1988, Volume 113, Pages 153-157
ad Ref 8)
Official Methods of Analysis AOAC, 15th Edition, 1990. ISBN 0-935584-42-0; Manuals of company R Biopharm Rhone, 2005
ad Ref 9)
Application note Mycotoxins in Grain Samples: *Simultaneous Analysis of 10 Mycotoxins in Crude Extracts of Different Types of Grains by LC/MS/MS,* 2008, Applera Corporation and MDS Inc., USA
Cliquid™ Software for Routine Food Testing: *Experimental Conditions to Analyze Trichothecene Mycotoxins and Zearalenone,* Applera Corporation and MDS Inc., USA
ad Ref 10)
CLIFTON E. MELOAN, Ph.D., Pesticides laboratory training manual, U.S. AID, U.S. EPA, U.S. FDA Published by AOAC International 1996 , suite 500
ad Ref 11)
ČSN ISO 5508: 1994 ANIMAL AND VEGETABLES FATS AND OILS, Analysis by gas chromatography of methyl esters of fatty acids , Prague: Czech Standardisation Institute, 1994
ad Ref 21)
SAMSON, R.A, HOCKING A.D., PITT, J.I., KING, A.D.(eds.) Modern method in food mycology. Amsterdam, London, New York, Tokyo: Elsevier, 1992. ISBN: 0-444-88939-6.;
Third International Workshop on Standardization of Methods for the Mycological Examination of Foods – programme and abstracts, ICFM, Copenhagen, Denmark, June 25 - 30, 1994, 39 s.
ad Ref 23)
Instruction manual for aeroscope MAS-100 Eco from Merck
ad Ref 32)
prEN ISO 21569:2002 (draft);
prEN ISO 21571:2002 (draft);
Extraction and purification of DNA (Training manual, Ispra);
BŘÍZA J., NIEDERMEIEROVÁ H., PAVINGEROVÁ D., VLASÁK J.: Report on result of transgene detection for Aventis Crop Science, 2002;
SOP from Monsanto (BQ-QC-0203-01);
PCR Assay for Detection of Maize Transgenic Event Bt10 (Community Reference Laboratory for GM Food and Feed);
CHIUEH L.C., CHEN Y.L., SHIN Y.C.D. Study on the detection method of six varieties of GM maize and processed foods. *J.Food Drug Anal.* 2006, vol. 10, pp. 25-33
GMOIdent Mini-kit Bt63 rice manual, GeneScan-Eurofins, 2007
Instruction for PreMaster NOSP-npt-P/G Mod.GSE-P-0,5.37 GeneScan-Eurofins, 2004
GMO Ident Herculex I Corn manual, GeneScan-Eurofins, 2007

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SAMBROOK, J., FRITSCH, E. F., MANIATIS, T.: *Molecular Cloning*, A Laboratory Manual, Cold Spring Harbor Laboratory Press, 2nd Edition, 1989. ISBN 0-87969-577-3.
HOLST-JENSEN, A., RONNING, S.B., LOVSETH, A., BERDAL, K.G., PCR technology for screening and quantification of genetically modified organisms (GMOs*), Anal Bioanal Chem* . 2003. vol. 375. pp. 985-993
TABERLET, P.,GIELLY,L.,PATOU,G.,BOUVET,J. (1991), Universal primers for amplification of three non-coding regions of chloroplast DNA, *Plant Molecular Biology*. 2001. vol. 17. pp. 1105-1109.
PowerPlant®Pro DNA Isolation Kit, MoBio laboratories, Inc. Version 01142013
DNeasy®Plant Mini Kit, Manual 08/2000, QIAGEN
Agarose for the Separation of GeneAmp PCR Products, Protocol Applied Biosysteme;
GelRed™Nucleic Acid Gel Stain, 10,000X in H_2O, Product information, Biotium;
Instruction for detection from Bavarian Health and Food Safety Authority, Germany;
GMOIDENT kit MON88017/MON89034 Corn manual, GeneScan – Eurofins, Germany, version 1.2 (6/2008)
OGUCHI, T., ONISHI, M., MANO, J., AKIYAMA, H., TESHIMA, R., FUTO, S., FURUI, S., KITTA, K., (2008): Development of multiplex PCR method for simultaneous detection of four events of genetically modified maize: DAS-59122-7, MIR604, MON863 and MON88017. *Food Hyg. Saf. Sci.,* 51(3): 92-100
ad Ref 33)
Ron Horse Detection Kit – Extended, Handbook, BIORON, version: 20022013
UltraClean™Tissue & Cells DNA Isolation Kit, version: 12334-50, 250-8A-2008
UltraClean™Tissue & Cells DNA Isolation Kit, version: 09012011

Test object:

ad a) tissue, blood, urine

ad b) plant tissues (leaves, seeds, bulbs, tubers, fruits)

ad c) animal tissues (muscle, other tissues)

Acronyms:

AAS-FT	– atomic absorption spectrometry (flame technique)
AAS-ETA	– atomic absorption spectrometry (electrothermal atomization)
AES	– atomic emission spectrometry
AAS-HT	– atomic absorption spectrometry (hydride technique)
LC-FLD	– liquid chromatography with fluorescence detection
LC-MS/MS	– liquid chromatography with tandem mass spectrometry detection
GC-MS/MS	– gas chromatography with tandem mass spectrometry detection
GC-FID	– gas chromatography with flame ionisation detection
GMO	– genetically modified organism
PCR	– polymerase chain reaction

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Annex:
Flexible scope of accreditation

Ordinal numbers of tests
1, 2, 3, 4, 8, 9, 10, 11

The Laboratory is allowed to modify the test methods listed in the Annex within the specified scope of accreditation provided the measuring principle is observed in accordance with MPA 00-09-13.

The flexible approach to the scope of accreditation cannot be applied to the tests not included in the Annex.

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