Food safety analyses 2024

Division of Biotechnology and Plant Health
Dept. Pesticides and Natural Products Chemistry

RFL, September 2024, 2nd edition

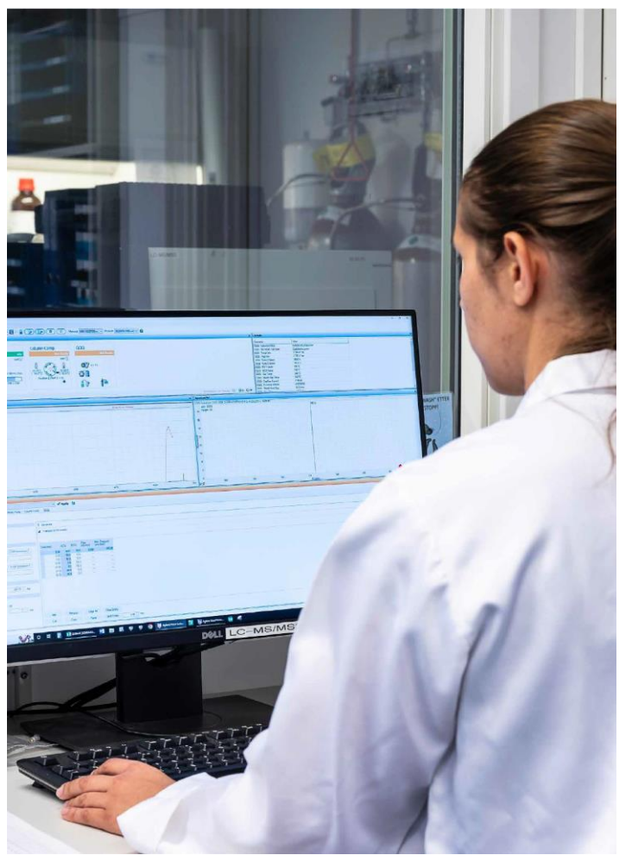
NORWEGIAN ACCREDITATION
TEST 035

On behalf of the Norwegian Food Safety Authority, NIBIO performs chemical analyses for the official control of pesticide residues and plant toxins in food products.The control includes, among other things, fruit, berries, vegetables, cereals, and some composite products like baby foods and feed.

The laboratory is the national reference laboratory for the Norwegian Food Safety Authority in the field. Hence, the laboratory also contributes to composing sampling plans and reports. The laboratory was accredited in 1997 and has a flexible accreditation scope. Most of the methods are accredited. Quality assurance and expanding the scope of accredited methods is a continuous priority.

Analytical methods

The laboratory offers several methods, including large multi-methods and single residue methods. The two large multi-methods, M93 and M86, cover 381 compounds. Please note that these multi-methods are complementary. To cover all 381 compounds, analysis using both multi-methods would be necessary.



The single residue/substance methods cover one or more substances. The next page lists relevant analytical methods (and prices) for the analysis of pesticide residues and plant toxins in food products and feed. More information about the various methods and included pesticides can be found on our website.

Our analytical methods cover the most commonly used pesticides in Norway and abroad. With our experience and knowledge, we can assist in finding relevant analysis combinations at the agreed price. If you want to search for pesticides not specified in these methods, please do not hesitate to contact the laboratory.

www.nibio.no/en

Photo: Erling Fløistad. NIBIO

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NORWEGIAN INSTITUTE OF BIOECONOMY RESEARCH

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Multi-methods

Method/parameter	Method	Accredited	Limit of quantification [baby food in brackets]	Sample price ex. VAT
Both multimethods; GC-MS/MS & LC-MS/MS (381 compounds)	M93 & M86	Yes	0.001 - 0.05 [0.001 - 0.05] mg/kg	NOK 6 060
GC-MS/MS multimethod (107 compounds)	M93	Yes	0.01 - 0.05 [0.005 - 0.05] mg/kg	NOK 3 255
LC-MS/MS multimetode (274 compounds)	M86	Yes	0.001 - 0.05 [0.001 - 0.05] mg/kg	NOK 4 295

Single residue/substance methods

Method/parameter	Method	Accredited	Limit of quantification	Sample price ex. VAT
Dithiocarbamates; GC-MS of CS_2	M84	Yes	0.01 mg/kg CS_2	NOK 3 640
Acidic herbicides; LC-MS/MS (23 compounds)	M90	Yes	0.01 - 0.05 mg/kg	NOK 3 050
Ethephon; LC-MS/MS	M92	Yes	0.05 mg/kg	NOK 3 050
Quaternary ammonium compounds (QAC); LC-MS/MS (9 compounds)	M94	No	0.01 mg/kg	NOK 3 640
Glyphosate; LC-MS/MS	M96/M115	Yes	0.05 mg/kg	NOK 3 640
Chlormequat, mepiquat and cyromazine*; LC-MS/MS	M100	Yes	0.01 mg/kg	NOK 3 050
Chlorate & perchloratelorate; LC-MS/MS	M104	Yes	0.01 mg/kg	NOK 3 050
Captan, chlorothalonil, dichlofluanid, folpet, and tolylfluanid; GC-MS/MS	M108	No	0.01 - 0.025 mg/kg	NOK 3 640
Glufosinate; LC-MS/MS	M110	Yes	0.01 - 0.02 mg/kg	NOK 3 640
Total inorganic bromide; LC-MS/MS	M114	Yes	5 mg/kg	NOK 3 050
Fosetyl-Al; LC-MS/MS	M116	Yes	0.75 - 2.0 mg/kg	NOK 3 050
Diquat og paraquat; LC-MS/MS	M118	No	0.01 - 0.02 mg/kg	NOK 3 050
Nicotine; LC-MS/MS	M122	No	0.01 - 0.05 mg/kg	NOK 3 050
Tropane alkaloids (the plant toxins atropine og skopolamine); LC-HRMS	M106	No	0.33 - 0.67 µg/kg	NOK 3 050
Pyrrolizidine alkaloids (plant toxins); LC-HRMS (43 compounds)	M112	No	5 - 10 µg/kg	NOK 3 640
Patulin (mycotoxin); LC-MS/MS	M102	No	0.0025 mg/kg	NOK 3 050
Fee when ordering without our request forms				NOK 250

* Not accredited

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