

# Schedule of Accreditation



Organisation Name	FBA Laboratories Ltd
Trading As	FBA Laboratories Limited
INAB Reg No	257T
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Accreditation Standard	EN ISO/IEC 17025 T
Standard Version	2017
Date of award of accreditation	13/04/2010

Scope Classification Biological and Veterinary Testing

Scope Classification Chemical Testing

Services available to the public<sup>1</sup>

<sup>1</sup> Refer to document on interpreting INAB Scopes of Accreditation

Sites from which accredited services are delivered		
(the detail of the accredited services delivered at each site are on the Scope of Accreditation)		
	Name	Address
1	Head Office	Carrigeen Industrial Estate, Cappoquin, Waterford, P51 RW14

# Scope of Accreditation

## Head Office

### Biological and Veterinary Testing

Category: A

Biology/veterinary field - Tests	Test name	Technique	Matrix	Equipment	Std. reference	
804 Detection of bacterial, parasite, viral or fungal antigens using specific antibodies and appropriate techniques - .03 Enzyme immunoassay,	Determination of BVD Antigen in Ear Notch Samples by ELISA	ELISA	Ear Notch	Absorbance Reader	Based on IDEXX Bovine Viral Diarrhoea Virus (BVDV) Antigen Test Kit/Serum Plus. In-house method ref.: CM08.	
	Determination of BVD Antigen in Individual Ear Notch Samples by IDEXX ELISA using DSX Automated System		Ear Notch	DSX Automated System	Based on IDEXX Bovine Viral Diarrhoea Virus (BVDV) Antigen Test Kit/Serum Plus. In-house method ref.: CM15.	
	Determination of BVD Antigen in Serum by ELISA		Serum	Absorbance Reader	Based on IDEXX Bovine Viral Diarrhoea Virus (BVDV) Antigen Test Kit/Serum Plus. In-house method ref.: CM09.	

805 Detection and/or identification of bacterial, parasite, fungal and viral nucleic acids using appropriate techniques - .03 Nucleic acid amplification tests, CE marked commercial systems	Determination of BVD Antigen in Individual and Pooled Ear Notch by RT-PCR using Indical kit	PCR	Ear Notch	Real Time PCR Instrument	Based on Indical Viotype BVDV RT-PCR Kit. In-house method ref.: CM13.	
808 Detection of antibody response to infection using appropriate techniques - .02 Enzyme immunoassay, using CE marked commercial systems	Determination of MAP Antibodies in Individual Milk Samples by ID VET ELISA	ELISA	Milk	Absorbance Reader	Based on ID.vet ELISA Kit: ID Screen Paratuberculosis Indirect Screening Test. In-house method ref.: CM17.	
	Determination of MAP Antibodies in Individual Serum Samples by ID VET ELISA		Serum	Absorbance Reader	Based on ID.vet ELISA Kit: ID Screen Paratuberculosis Indirect Screening Test. In-house method ref.: CM16.	

## Head Office

### Chemical Testing

Category: A

Chemistry Field - Tests	Test name	Analyte	Range of measurement	Matrix	Equipment/technique	Standard reference/SOP
751 Food testing - .02 Nutritional analysis	Determination of Nitrates and Nitrites in Dry Milk Products	Nitrate	0.7 to 16.0 mg/kg	Dry Milk Products	Flow Injection Analysis (FIA): Lachat QuikChem 8500 Series 2 FIA Analyser using cadmium reduction	ISO 14673-3:2004 / IDF 189-3:2004 / CM38
		Nitrite	3.3 to 200.0 mg/kg	Dry Milk Products	Flow Injection Analysis (FIA): Lachat QuikChem 8500 Series 2 FIA Analyser using cadmium reduction	ISO 14673-3:2004 / IDF 189-3:2004 / CM38
751 Food testing - .03 Compositional analysis	Determination of Fat-soluble Vitamins in dry milk	Vitamin A	6-14 mg/kg	Milk Powder	HPLC-DAD	In-house CM53
		Vitamin D3	0.03-0.10 mg/kg	Milk Powder	UHPLC-MS/MS	In-house CM53
	Determination of Lactose by IC-PAD	Lactose	0.003 to 100g/100g	Milk Powder	IC-PAD. Ion Chromatography with Pulsed Amperometric Detection	Based on Metrohm Application Note AN-P-089
			0.006 to 0.2g/100g	Milk	IC-PAD. Ion Chromatography with Pulsed Amperometric Detection	Based on Metrohm Application Note AN-P-089. In-house method ref.: CM33
751 Food testing - .04 Adulteration	Determination of Melamine and Cyanuric Acid in Milk Powder	Cyanuric Acid	0.2-10 mg/kg	Milk Powder	UHPLC-MS/MS	In-house CM37

		Melamine	0.1-5.0 mg/kg	Milk Powder	UHPLC-MS/MS	In-house CM37
751 Food testing - .05 Speciation	Determination of Undenatured Whey Protein Nitrogen Index	Undenatured Whey Protein Nitrogen Index	0.41 to 8.12 mg/g	Skimmed Milk Powder	Spectrophotometry: Hach DR 6000 Spectrophotometer	In-house Ref. CM49
752 Chemical residue testing - .02 Elements	Determination of elements in milk powder	Calcium	1886 to 33333 mg/kg	Milk powder	ICP-MS: Perkin Elmer NexION 2000	In-house reference CM51
		Copper	1.27 to 66.6 mg/kg	Milk powder	ICP-MS: Perkin Elmer NexION 2000	In-house reference CM51
		Molybdenum	1.16 to 16.66 mg/kg	Milk powder	ICP-MS: Perkin Elmer NexION 2000	In-house reference CM51
		Phosphorus	1918 to 66666 mg/kg	Milk powder	ICP-MS: Perkin Elmer NexION 2000	In-house reference CM51
		Potassium	2637 to 66666 mg/kg	Milk powder	ICP-MS: Perkin Elmer NexION 2000	In-house reference CM51
		Selenium	0.09 to 3.33 mg/kg	Milk powder	ICP-MS: Perkin Elmer NexION 2000	In-house reference CM51
		Sodium	663 to 33333 mg/kg	Milk powder	ICP-MS: Perkin Elmer NexION 2000	In-house reference CM51
	Determination of total Iodine in Dairy Products	Iodine	0.025 to 10.0 mg/kg	Milk	ICP-MS: Agilent 7700	ISO 20647:2015 / IDF 234:2015 (In-house Ref. CM50)
			0.0375 to 15.0 mg/kg	Milk Powder	ICP-MS: Agilent 7700	ISO 20647:2015 / IDF 234:2015 (In-house Ref. CM50)
752 Chemical residue testing - .03 Mycotoxins	Determination of Aflatoxin M1 in milk	Aflatoxin M1	0-1 ug/kg	Milk, Milk Powder	UHPLC-MS/MS	In-house CM52
752 Chemical residue testing - .04 Pesticide residues	Determination of Chlorate and Perchlorate in Dairy Products by UHPLC-MS/MS	Chlorate and Perchlorate	2.0 to 400.0 $\mu$ g/kg for both analytes	Milk	UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In-house method ref.: CM29.
			20.0 to 4000.0 $\mu$ g/kg	Milk powder and	UHPLC-MS/MS: Perkin	In-house method ref.:

		for both analytes	skimmed milk powder	Elmer Qsight 420 MS	CM29.
		5 to 400.0 µg/kg for both analytes	Skimmed milk concentrate	UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In-house method ref.: CM29.
	Determination of Chlorate and Perchlorate in Water by UHPLC-MS/MS	2.0 to 1000.0 µg/l for both analytes	Potable water	UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In-house method ref.: CM30.
Determination of NOP's, Naturally Occurring Prohibited Substances, in feed samples by UHPLC/MS/MS	Atropine	5 to 200 µg/kg	Feed	UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM31.
	Bufotenine	5 to 200 µg/kg	Feed	UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM31.
	Caffeine	5 to 200 µg/kg	Feed	UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM31.
	DMT (Dimethyltryptamine)	5 to 200 µg/kg	Feed	UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM31.
	Hordenine	5 to 200 µg/kg	Feed	UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM31.
	Hyoscine	5 to 200 µg/kg	Feed	UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM31.
	Lupinine	50 to 200 µg/kg	Feed	UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM31.
	Morphine	5 to 200 µg/kg	Feed	UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM31.
	Theobromine	50 to 200 µg/kg	Feed	UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM31.
	Theophylline	5 to 200 µg/kg	Feed	UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM31.
Screening of NOPs in	Atropine	≥50 ng/g	Animal Feed	Liquid Chromatography	In house method ref.:

Feeds and Feed raw materials by UHPLC-MS/MS			(products and raw ingredients)	and Mass Spectrometry using UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	CM36
	Bufotenine	≥50 ng/g	Animal Feed (products and raw ingredients)	Liquid Chromatography and Mass Spectrometry using UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM36
	Caffeine	≥50 ng/g	Animal Feed (products and raw ingredients)	Liquid Chromatography and Mass Spectrometry using UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM36
	Hordenine	≥50 ng/g	Animal Feed (products and raw ingredients)	Liquid Chromatography and Mass Spectrometry using UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM36
	Hyoscine/Scopolamine	≥50 ng/g	Animal Feed (products and raw ingredients)	Liquid Chromatography and Mass Spectrometry using UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM36
	Lupinine	≥50 ng/g	Animal Feed (products and raw ingredients)	Liquid Chromatography and Mass Spectrometry using UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM36
	Morphine	≥50 ng/g	Animal Feed (products and raw ingredients)	Liquid Chromatography and Mass Spectrometry using UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM36
	N N-DMT	≥50ng/g	Animal Feed (products and raw	Liquid Chromatography and Mass Spectrometry	Based on Method Developed by

			ingredients)	using UHPLC-MS/MS	Cordoba University in Spain for the analysis of NOPS in Feed samples. In house reference CM36
	Theobromine	≥50 ng/g	Animal Feed (products and raw ingredients)	Liquid Chromatography and Mass Spectrometry using UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM36
	Theophylline	≥50 ng/g	Animal Feed (products and raw ingredients)	Liquid Chromatography and Mass Spectrometry using UHPLC-MS/MS: Perkin Elmer Qsight 420 MS	In house method ref.: CM36
752 Chemical residue testing - .05 Organic contaminants	Determination of Benzo(a)pyrene in milk products	Benzo(a)pyrene	0.32 to 75 µg/kg for cream	Cream	HPLC-FLD: Perkin Elmer HPLC LC300
	Determination of Benzo(α)pyrene in milk products	Benzo(α)pyrene	0.11 to 37.5 µg/kg	Milk Powder	HPLC-FLD: Perkin Elmer HPLC LC300
752 Chemical residue testing - .06 Mineral pollutants	Determination of Hg, Pb, Cd, As in milk powder by ICP-MS	Arsenic	22.00 to 3,330 µg/kg	Milk Powder	ICP-MS: Perkin Elmer NexION 2000
		Cadmium	4.00 to 420 µg/kg	Milk Powder	ICP-MS: Perkin Elmer NexION 2000
		Lead	14.00 to 4,170 µg/kg	Milk Powder	ICP-MS: Perkin Elmer NexION 2000
		Mercury	2.00 to 420 µg/kg	Milk Powder	ICP-MS: Perkin Elmer NexION 2000
766 Environmental testing	Determination of	Chemical Oxygen	3 to 4500 mg/L O <sub>2</sub>	Waters for potable	HACH DR6000 UV-Vis
					HACH Method 8000:

(inc waters) - .03 Chemical oxygen demand	Chemical Oxygen Demand (COD)	Demand		and domestic purposes, Ground Water, Surface Water, Wastewater	Spectrophotometer & HACH DRB200 Reactor Block	USEPA Reactor Digestion Method / In-house method ref.: CM21
766 Environmental testing (inc waters) - .04 Organic	Determination of Total Carbon, Total Organic Carbon and Total Nitrogen in soil and sludge through combustion at 1200oC	Total Carbon	0.01-60 %	Soil	Dry combustion and infrared spectrometry	In-house CM57 / EN15936:2022 method A
		Total Nitrogen	0.007-35 %	Soil	Dry combustion and infrared spectrometry	In-house CM57
		Total Organic Carbon	0-60 %	Soil	Calculation	In-house CM57 / EN15936:2022 method A
	Determination of Total Carbon, Total Organic Carbon and Total Nitrogen in soil	C:N ratio	0.001 to 8571.43	Soil	Calculation	In-house reference CM57
	Determination of Total Inorganic Carbon in soil and sludge through acidification and sparging at 150oC	Total Inorganic Carbon	0.003-12 %	Soil	Acidification & sparging and infrared spectrometry	In-house CM54 / EN15936:2022 method A
	Determination of Total Kjeldahl Nitrogen	Nitrogen	0.4-450 mg/L	Waters for potable and domestic purposes, Ground Water, Surface Water, Wastewater	Calculation	In-house CM45
766 Environmental testing (inc waters) - .05 Inorganic	Determination of Ammonia Nitrogen in Water	Ammonia	0.033-25 mg N/L	Waters for potable and domestic purposes, Ground Water, Surface Water, Wastewater	Seal AQ400 Discrete Analyser	USEPA Method 350.1 Rev 2.0, APHA Standard Methods 24th Edition (2023): 4500-NH3 H, 4500-NH3 G / CM43

Determination of Chloride in Water	Chloride	0-5000 mg/L	Waters for potable and domestic purposes, Ground Water, Surface Water, Wastewater	Seal AQ400 Discrete Analyser	ISO 15923-1:2013 / CM46
Determination of Ortho-phosphate in Water	Ortho-phosphate	0.006-25.0 mg P/L	Waters for potable and domestic purposes, Ground Water, Surface Water, Wastewater	Seal AQ400 Discrete Analyser	USEPA Method 365.1 Rev 2.0, APHA Standard Methods 24th Edition (2023): 4500-P F / CM39
Determination of Phosphorus & Potassium in Morgan's Extracts of Soil, by Segmented Flow Injection Analysis	Phosphorus and Potassium	1.5 to 30mg/l as P in soil 28 to 500mg/l as K in soil	Soil	Flow Injection Analysis (FIA): SEAL Analytical AA500 Segmented Flow Injection Analyser	In-house reference CM32
Determination of Total Nitrogen in Water	Total Nitrogen	0.5 to 450.0 mg/L	Waters for potable and domestic purposes, Ground Water, Surface Water, Wastewater	Spectrometric method: HACH Ganimede N Analysis Unit	Based on ISO 11905-1, In-house method ref.: CM35
Determination of Total Oxidized Nitrogen in Water	Total Oxidized Nitrogen (Nitrate + Nitrite)	0.1-180 mg N/L	Waters for potable and domestic purposes, Ground Water, Surface Water, Wastewater	Seal AQ400 Discrete Analyser	ISO 15923-1:2013 / CM40
Determination of Total Phosphorus in Water	Total Phosphorus	0.011 to 40.0 mg/L	Waters for potable and domestic purposes, Ground Water, Surface Water, Wastewater	Spectrometric method: HACH Ganimede P Analysis Unit	Based on ISO 6878:2004, In-house method ref.: CM34
767 Physical test/measurement - .01 pH	Determination of pH in Water	pH	pH units 4-10	Electrometric determination: HACH HQ440d Multi-Parameter Meter with HACH pHC101 pH	Based on APHA 2023: 4500-H+B. In-house method ref.: CM20

					probe	
	pH of Soil in Water & SMP Buffer (for lime requirement)	Water pH of Soil & Buffer pH of Soil	pH 4-7 in aqueous suspension pH 4-7 in acetate buffer (SMP) suspension.	Soil	Electrometric determination: SEAL Analytical pH meter – ML V3 250L 4pH-soil	In-house method ref.: CM01/CM02
797 Miscellaneous materials and products - .02 Physical tests	Determination of Organic Matter in Soil	Organic Matter	0.7-100%	Soil	Manual: Oven drying, gravimetry and combustion using Carbolite CWF 12/23 Chamber furnace. Automated: Oven drying, gravimetry using Skalar SP2000 Automated Weighing Robot, and combustion using Nabertherm NA 120/65 Chamber Furnace.	Based on requirements of Statutory Instrument No. 605 of 2017 (Schedule 1). In-house method: CM05.