



MPI Consolidated List of Tests for Animal Products: meat, poultry, honey, seafood, dairy, live animals and germplasm

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Part 1 Tests

Purpose

This list of tests is incorporated by reference into the Animal Products Notice: Specifications for Laboratories.

Who should read this List?

Laboratories that are recognised under the Animal Products Act 1999, to conduct tests for live animals, on animal material or animal products, or on materials associated with the processing of animal material or animal products.

This list of tests would be useful for the general public, and for premises, certifiers, and verifiers associated with the processing of animal material or animal products.



Numerical Reference	Test	Animal Materials and Products and Associated Things	Method	Markets
1.0 MEAT, POULTRY, EGG & HONEY INDUSTRY POTABLE WATER MICROBIOLOGY				
1.1.1	Total coliforms (coliform bacteria), <i>Escherichia coli</i>	Potable water	MIMM 11.A1.1 rapid MIMM 11.A2 with 11.A2.6 MIMM 11.3/11.4 with 11.5	EU, US, China
1.2	Faecal coliforms	Potable water, HC Spec	MIMM 11.4 mFC MF MIMM 11.A2 MPN	all
1.3	Colony count 22°C	Potable water	MIMM 11.6 SPC	EU, US, China
1.6.1	<i>Clostridium perfringens</i> (including spores)	Potable water	MIMM Membrane filter method for <i>Clostridium perfringens</i> 11.A3	EU, US, China
1.8	<i>Escherichia coli</i>	Potable water, HC Spec	MIMM 11.A1.1 rapid APHA	all
2.0 MEAT & MEAT PRODUCT, POULTRY, EGG & EGG PRODUCT & HONEY MICROBIOLOGY/PARASITOLOGY (not including dairy products or environmental sampling within dairy premises)				
2.1.1	Aerobic Plate Count (APC)	Minced meat and mechanically separated meat	Method as per ISO 17025 accreditation.	EU, South Africa
		Frozen, or packed chilled vacuum packed, or packed chilled packed meat cuts or carcasses.	Method as per ISO 17025 accreditation. Sample taker training, sampling techniques and transport of samples must follow all NMD requirements	Iran
		Pet food	Total plate count; combined aerobic & facultative anaerobe count	India
2.1.2	APC spread plate	Bovine, bobby calf, caprine, cervine, ostrich and emu, ovine, and pigs	Must follow all NMD requirements	all
2.1.3	APC Petrifilm	Bovine, bobby calf, caprine, cervine, ostrich and emu, ovine, and pigs	Must follow all NMD requirements	all
2.1.4	APC spiral plater	Bovine, bobby calf, caprine, cervine, ostrich and emu, ovine, and pigs	Must follow all NMD requirements	all
2.1.5	APC	Packed edible tripe products	Must follow all sampling requirements	China

Note 'all' in column five 'Market' means where testing is a generic New Zealand requirement



Numerical Reference	Test	Animal Materials and Products and Associated Things	Method	Markets
2.1.6	Total Bacterial Count (TBC) or APC	Fish meal (TBC)	Colony forming unit/gram method	<i>China</i>
2.2.1	<i>Escherichia coli</i> , direct plate or Petrifilm	Minced meat, meat preparations and mechanically separated meat	Method as per ISO 17025 accreditation.	<i>EU, South Africa</i>
		Frozen, or packed chilled vacuum packed, or packed chilled packed meat cuts or carcasses.	Method as per ISO 17025 accreditation. Sample taker training, sampling techniques and transport of samples must follow all NMD requirements	<i>Iran</i>
2.2.2	<i>Escherichia coli</i> , Petrifilm	Bovine, bobby calf, caprine, cervine, ostrich and emu, and pigs	Must follow all NMD requirements	<i>all</i>
2.3	<i>Staphylococcus aureus</i>	Minced meat, meat preparations and mechanically separated meat	MIMM 7.8	<i>South Africa</i>
2.4.1	<i>Salmonella</i>	Minced meat, meat preparations and mechanically separated meat, ready-to-eat products containing raw egg, meat products intended to be eaten raw	Methods as per ISO 17025 accreditation for the matrix concerned	<i>EU, US, South Africa, USA</i>
		Frozen, or packed chilled vacuum packed, or packed chilled packed meat cuts or carcasses.		<i>Iran</i>
		Blood products for use in feed		<i>EU</i>
		Rendered meals		<i>Indonesia, Philippines</i>
		Rendered fats and fish oils not for human food		<i>EU</i>
		Pet food		<i>India</i>
		Processed pet food and flavouring innards		<i>EU, Eurasian Economic Union</i>
		Processed animal proteins for feeding stuffs, pet food		<i>EU, French Polynesia</i>

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Numerical Reference	Test	Animal Materials and Products and Associated Things	Method	Markets	
		Gelatine and collagen for human food, shelf life		EU	
		Gelatine and collagen not for human food		EU	
		Hydrolysed protein, di-calcium phosphate, tri-calcium phosphate not for human food		EU	
		Egg products not for human food		EU	
		Dried dietary foods for special medicinal purposes for infants below 6 months of age – excluding infant formula		EU	
		Meat and bone meal		Fiji	
		Fish meal and fish oil		Presence/absence method suitable to matrix	China
		Egg and egg products			Australia
		Egg and egg products, environmental samples, cull birds			Singapore
2.4.2	<i>Salmonella</i>	Beef, veal and pig meat	Must follow all EU OMAR requirements	Sweden, Finland or to countries with same requirements e.g. Iceland	
2.4.3	<i>Salmonella</i>	Bovine, bobby calf, caprine, cervine, ostrich and emu, and poultry (ducks, EOLs, meat chickens and turkeys)	Must follow all NMD requirements	all	
		Raw ground beef and raw ground beef products		US	
		Turkeys		EU	
2.5	<i>Shigella</i>	Fish meal	Presence/absence method	China	
2.6	<i>Listeria monocytogenes</i>	Cooked, ready-to-eat meat products and environmental samples		EU, US	

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Numerical Reference	Test	Animal Materials and Products and Associated Things	Method	Markets
		Ready-to-eat foods including ready-to-eat foods for infants and special medicinal purposes – excluding infant formula. Environmental samples	Method as per ISO 17025 accreditation for the matrix concerned.	EU
		Gelatine and collagen for human food		EU
2.8	<i>Clostridium perfringens</i>	Rendered fats and fish oils not for human food	MIMM 7.10 Sulphite reducing anaerobes	EU
		Processed animal proteins for feeding stuffs, pet food		EU
		Canned and wet pet food		India
2.8.1	<i>Clostridium perfringens</i>	Pet food	ISO 7937:2004 See also MIMM 7.10.3 re limits of detection	Eurasian Economic Union
2.9	Enterobacteriaceae	Blood products for use in feed	MIMM 8.2 with method verified for defined matrix e.g. rendered fats and fish oils	EU
		Rendered fats and fish oils not for human food		EU
		Processed pet food or flavoured innards		EU
		Processed animal proteins for feeding stuffs		EU, French Polynesia
		Gelatine and collagen not for human food		EU
		Hydrolysed protein, di-calcium phosphate, tri-calcium phosphate not for human food		EU
		Egg products not for human food		EU
		Dried infant formula processing areas and equipment		EU
		Fish meal	MPN method compatible with limit of ≤ 300 MPN/g	China

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Numerical Reference	Test	Animal Materials and Products and Associated Things	Method	Markets
2.9.1	<i>Cronobacter</i> species including <i>Cronobacter sakazakii</i>	Dried dietary foods for special medicinal purposes for infants below 6 months of age - excluding infant formula	FDA BAM current edition ' <i>Cronobacter</i> ' http://www.fda.gov/food/foodscienceresearch/laboratorymethods/ucm289378.htm ; Or ISO/TS 22964:2017; Or as per ISO 17025 scope of accreditation.	EU
2.10	Faecal coliforms	Muslin/vegetable fibre used as wrapping materials	MIMM 8.5	all
2.10.1	Total coliforms	Fish oil	MPN method compatible with limit of ≤ 300 MPN/g	China
Tests for presence of disease agents				
2.11	<i>Bacillus anthracis</i>	Inedible meals or other products as defined by MPI	OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals current edition http://www.oie.int/en/international-standard-setting/terrestrial-manual/access-online	
2.12	<i>Trichinella</i> spp.	Meat and meat products conforming to label requirements or standards	Method as per EU OMAR	EU, Eurasian Economic Union, Singapore, South Africa
2.13	Bovine Viral Diarrhoea (BVD) analysis	Bovine serum	Method as per ISO 17025 accreditation	India
2.13.1	Bovine Viral Diarrhoea (BVD) analysis	Blood (including plasma, serum and purified proteins)	Method as per ISO 17025 accreditation	China
2.14	American Foul Brood	Honey	Method as per ISO 17025 accreditation	Eurasian Economic Union
2.15	Asepsis	Blood (including plasma, serum and purified proteins)	Method as per ISO 17025 accreditation	China
2.16	Mycoplasma	Blood (including plasma, serum and purified proteins)	Method as per ISO 17025 accreditation	China
2.17	Pathogen inducing cytopathy	Blood (including plasma, serum and purified proteins)	Method as per ISO 17025 accreditation that includes observation of dyed cells after culture.	China

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Numerical Reference	Test	Animal Materials and Products and Associated Things	Method	Markets
2.18	Pathogen inducing haemadsorption	Blood (including plasma, serum and purified proteins)	Method as per ISO 17025 accreditation that includes an haemadsorption test using Guinea Pig blood cells after culture of bovine lung and/or vero cells.	<i>China</i>
22.1	<i>Campylobacter</i>	Poultry (ducks, EOLs, meat chickens, turkeys)	Must follow all NMD requirements	<i>all</i>
		Turkeys		<i>EU</i>
23.1	<i>Escherichia coli</i> O157:H7	Bulk manufacturing beef and bobby veal	US OMAR	<i>US, China</i>
		Raw ground beef and raw ground beef products		
23.1.1	Primary <i>Escherichia coli</i> O157:H7 culture isolation using immunomagnetic separation (IMS)	Bulk manufacturing beef and bobby veal.	US OMAR	<i>US, China</i>
		Raw ground beef and raw ground beef products		
23.2	Non-O157 Shiga Toxin-producing <i>Escherichia coli</i>	Bulk manufacturing beef and bobby veal	US OMAR	<i>US, China</i>
23.3	Top 7 Shiga Toxin-producing <i>Escherichia coli</i>	Bulk manufacturing beef and bobby veal	US OMAR	<i>US, China</i>
23.4	Top 7 Shiga Toxin-producing <i>Escherichia coli</i> molecular confirmation	Bulk manufacturing bobby veal	US OMAR	<i>US, China</i>
23.5	Culture confirmation of Top 7 Shiga Toxin-producing <i>Escherichia coli</i> , including <i>E. coli</i> O157:H7	Bulk manufacturing beef	US OMAR	<i>US, China</i>
		Raw ground beef and raw ground beef products; confirmation for <i>E. coli</i> O157:H7 only	US OMAR	<i>US</i>

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Numerical Reference	Test	Animal Materials and Products and Associated Things	Method	Markets
3.0 MEAT and SEAFOOD – CHEMISTRY				
Recognition for proximate analysis requires that all Ash, Fat, Moisture and Protein tests are conducted.				
3.1.1	Proximate analysis - Ash	Processed meat products	AOAC on-line edition 920.153	EU
3.1.2	Proximate analysis - Fat	Processed meat products	(1) AOAC on-line edition 960.39 (2) AOAC on-line edition 991.36	EU
		Mollusc meal and powder	No method specified	India
3.1.3	Proximate analysis - Moisture	Processed meat products	AOAC on-line edition 950.46B	EU
		Mollusc meal and powder	No method specified	India
3.1.4	Proximate analysis - Protein	Processed meat products	AOAC on-line edition 928.08 (II) or equivalent automated procedure	EU
		Mollusc meal and powder	No method specified	India
Meat and meat products when being tested for ash need to be either: (1) dried overnight at 101°C and then added to a cool furnace and heated to 550°C; or (2) placed in a muffle which is temperature ramped. Meat and bone meal need to be added to a cooled furnace or pre-heated furnace and heated to 550°C or 600°C.				
4.0 TALLOW, FATS AND OILS				
Tallow analysis				
4.01	Insoluble impurities	Rendered fats from ruminant materials and rendered fats for human food	(1) AOAC Ca 3a – 46 most recent edition. (2) MIRINZ 831	EU US
4.02	FFA (m/m % oleic acid)	Rendered fats for human food	(1) AOAC Ca 5a-40 most recent edition. (2) MIRINZ 831	EU
		Fish lipids and oils containing EPA and DHA	No method specified	India
4.03	Peroxide	Rendered fats for human food	(1) AOCS Cd 8-53 most recent edition. (2) AOAC 965.33 most recent edition (3) MIRINZ 831	EU
		Fish lipids and oils containing EPA and DHA	No method specified	India

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4.04	Moisture	Rendered fats for human food	(1) AOCS Ca 2a-45 (Dean and Stark method) most recent edition. (2) AOCS Ca 2b-38 (Hot Plate Method) most recent edition. (3) AOCS Ca 2c-25 air oven method @ 130°C most recent edition. (4) AOCS Ca 2d-25 Vacuum oven method most recent edition. (5) MIRINZ 831	EU
		Fish lipids and oils containing EPA and DHA	No method specified	India
5.0 POTABLE WATER - PHYSICO-CHEMICAL PARAMETERS				
All markets: Surveillance of potable water in meat and game export premises. EU OMAR and US OMAR Group A and Group B parameters are indicated in column three.				
5.01	Colour	Potable water, Group A	APHA latest edition or latest on-line edition, or as per scope of accreditation	EU, US, China
5.02	Conductivity	Potable water, Group A at 25°C		
5.03	pH (hydrogen ion concentration)	Potable water, Group A		
5.04	Turbidity	Potable water, Group A		
5.10	Ammoniacal nitrogen (ammonium)	Potable water, Group A		
5.11	Chloride	Potable water, Group B		
5.12	Fluoride	Potable water, Group B		
5.13	Nitrate	Potable water, Group B		
5.14	Nitrite	Potable water, Group A/Group B		
5.16	Sulphate	Potable water, Group B		
5.17	Aluminium	Potable water, Group A /Group B		
5.18	Arsenic	Potable water, Group B		
5.19	Boron	Potable water, Group B		
5.20	Cadmium	Potable water, Group B		
5.22	Chromium	Potable water, Group B		
5.23	Copper	Potable water, Group B		
5.24	Cyanide	Potable water, Group B		
5.25	Iron	Potable water, Group A /Group B		
5.26	Lead	Potable water, Group B		
5.28	Manganese	Potable water, Group B		

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5.29	Mercury	Potable water, Group B		
5.31	Sodium	Potable water, Group B		
5.32	Selenium	Potable water, Group B		
5.35	Polynuclear aromatic hydrocarbons (PAH)	Potable water, Group B		
5.36 Pesticides:				
5.36.1	Acid herbicides:	Potable water Group B monitoring of some of the pesticide parameters	APHA latest edition or latest on-line edition, or as per scope of accreditation	<i>EU, US, China</i>
	2,4,5-T			
	2,4-D			
	2,4-DB			
	Dichlorprop			
	Fenoprop			
	MCPA			
	Mecoprop			
	Pentachlorophenol			
	Picloram			
	Triclopyr			
5.36.2	Chlortoluron, Diuron, Thiabendazole	Potable water, Group B	APHA latest edition or latest on-line edition, or as per scope of accreditation	<i>EU, US, China</i>
5.36.3	Semi Volatile Organic Compounds (SVOC):	Potable water Group B includes benzo(a)pyrene and some of the pesticide parameters	APHA latest edition or latest on-line edition, or as per scope of accreditation	<i>EU, US, China</i>
	Benzo(a)pyrene			
	Alachlor			
	Aldicarb			
	Aldrin + dieldrin			
	Atrazine			
	Azinphos methyl			
	Bromacil			
	Carbofuran			
	Chlordane			
	Chlorpyrifos			
	Cyanazine			
	DDT + isomers			
	Dimethoate			
	Endrin			
Heptachlor and heptachlor epoxide				
Hexachlorobenzene				
Hexazinone				

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	Isoproturon			
	Lindane			
	Metalaxyl			
	Methoxychlor			
	Metolachlor			
	Metribuzin			
	Molinate			
	Oryzalin			
	Oxadiazon			
	Pendimethalin			
	Pirimiphos methyl			
	Primisulfuron-methyl			
	Procymidone			
	Propazine			
	Pyriproxifen			
	Simazine			
	Terbacil			
	Terbutylazine			
	Trifluralin			
5.36.4	1080	Potable water, Group B	APHA latest edition or latest on-line edition, or as per scope of accreditation	<i>EU, US, China</i>
5.39	Volatile Organic Compounds (VOC):	Potable water Group B includes some pesticide parameters	APHA latest edition or latest on-line edition, or as per scope of accreditation	<i>EU, US, China</i>
	Benzene			
	1,2-dichloroethane			
	Tetrachloroethane and trichloroethane			
	Vinyl chloride			
	Epichlorohydrin			
	1,2-dibromo-3-chloropropane			
	1,2-dibromoethane			
	1,2-dichloropropane			
	1,3-dichloropropene, cis			
	1,3-dichloropropene, trans			
5.40	Trihalomethanes	Potable water, Group B		
5.41	Oxidisability	Potable water, Group B		



5.42	Total Organic Carbon (TOC)	Potable water, Group B		
5.43	Acrylamide	Potable water, Group B		
5.44	Antimony	Potable water, Group B		
5.45	Bromate	Potable water, Group B		
5.46	Nickel	Potable water, Group B		
6.0 ANIMAL PRODUCTS IN GENERAL - COMPOSITION (includes vitamins, minerals and other nutrients)				
6.01	Vitamin A, retinol	Meat and meat products conforming to label requirements or standards of composition	Official Methods of Analysis of the Association of Official Analytical Chemists, most recent edition	EU, US
6.02	Vitamin B1, thiamine			
6.03	Vitamin B2, riboflavin			
6.04	Vitamin B3, niacin or nicotinic acid			
6.05	Vitamin B5, pantothenic acid			
6.06	Vitamin B6, pyridoxin			
6.07	Folic acid or folate (a B vitamin)			
6.08	Biotin (a B complex vitamin)			
6.09	Vitamin B12, cyanocobalamin or hydroxocobalamin			
6.10	Vitamin C, ascorbic acid			
6.11	Vitamin D3, cholecalciferol			
6.12	Vitamin E, D1-alpha-tocopherol			
6.13	Vitamin K, menaquinone			
6.14	Calcium, mineral			
6.15	Chloride or chlorine, mineral			
6.16	Copper, mineral			
6.17	Fluoride or fluorine, mineral			
6.18	Iodide or iodine, mineral			
6.19	Iron, mineral			
6.20	Magnesium, mineral			
6.21	Manganese, mineral			
6.22	Phosphorus, mineral			
6.23	Potassium, mineral			
6.24	Sodium, mineral			
6.25	Zinc, mineral			
6.26	Choline, amino acid			

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6.27	Taurine, amino acid	Meat and meat products conforming to label requirements or standards of composition	Official Methods of Analysis of the Association of Official Analytical Chemists, most recent edition	EU, US
6.28	Cholesterol			
6.29	Dietary fibre, total and insoluble			
6.30	Fatty acid profile			
	Fatty acid profile including EPA, DHA and total trans fatty acid contents	Fish lipids and oils containing EPA and DHA		India
6.31	pH	Meat and meat products conforming to label requirements or standards of composition	Official Methods of Analysis of the Association of Official Analytical Chemists, most recent edition	EU, US
6.32	Sulphated ash			
6.33	Total sugar			
6.34	Water activity (Aw)	Dry pet food		India
7.0 ANIMAL PRODUCTS IN GENERAL – FOOD ADDITIVES AND INGREDIENTS				
7.01	Benzoic acid or benzoates	Meat and meat products conforming to label requirements or standards of composition	Official Methods of Analysis of the Association of Official Analytical Chemists, most recent edition	EU, US
7.02	Sorbic acid or sorbates			
7.03	Nitrate			
7.04	Nitrite			
7.05	Salt NaCl			
7.06	Sucrose			
7.07	Reducing sugars			
7.08	Invert sugar			
7.09	Sugar profile			
7.10	Sulphur dioxide or sulphites			



Numerical Reference	Test	Animal Materials and Products and Associated Things	Group	Markets
8.0 ANIMAL PRODUCTS - CHEMICAL RESIDUE TESTING (NCRP, NCCP & OMAR) Method: relevant to current Animal Products Residue Programme and OMAR requirements. Owing to special requirements of the residue programme, laboratories that hold accreditation under IANZ chemical programme 2.70 class of test may use this for the purposes of the residue programme. Such reports must be signed by 2.70 KTPs for that technique. Product: applied to animal products, including dairy, as defined under the Animal Products Act 1999 conforming to standards. Application: Markets as specified with defined testing of specified material.				
8.1	Stilbenes plus steroids and resorcylic acid lactones	Mammals, birds, fish, honey & dairy		<i>all</i>
8.4	Aminoglycosides	Mammals, birds, fish, honey & dairy	Antibacterial compounds	<i>all</i>
8.5	Beta-lactams	Mammals, birds, fish, honey & dairy	Antibacterial compounds	<i>all</i>
8.6	Cephalosporins	Mammals, birds, fish, honey & dairy	Antibacterial compounds	<i>all</i>
8.7	Tetracyclines	Mammals, birds, fish, honey & dairy	Antibacterial compounds	<i>all</i>
8.8	Amphenicols	Mammals, birds, fish, honey & dairy	Antibacterial compounds	<i>all</i>
8.9	Macrolides	Mammals, birds, fish, honey & dairy	Antibacterial compounds	<i>all</i>
8.9.1	Virginiamycin	Mammals & dairy	Antibacterial compounds	<i>all</i>
8.10	Sulphonamides	Mammals, birds, fish, honey & dairy	Antibacterial compounds	<i>all</i>
8.11	Nitroimidazoles	Mammals, birds, fish, honey & dairy	Antibacterial compounds	<i>all</i>
8.12	Carbadox	Mammals	Anticoccidials	<i>all</i>
8.13	Benzamidazoles	Mammals, birds, fish & dairy	Anthelmintics	<i>all</i>
8.13.1	Monepantel	Mammals, birds, fish & dairy	Anthelmintics	<i>all</i>
8.14	Imidazothiazoles eg levamisol	Mammals, birds, fish & dairy	Anthelmintics	<i>all</i>
8.15	Polyether coccidiostats	Mammals, birds, fish, honey & dairy	Anticoccidials	<i>all</i>
8.15.1	Toltrazuril	Mammals and birds	Anticoccidials	<i>all</i>
8.16	Milbemycin group	Mammals, birds, fish, honey & dairy	Anthelmintics	<i>all</i>
8.17	Synthetic pyrethroids and carbamate pesticides	Mammals, birds, fish, honey & dairy	Pesticides	<i>all</i>

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Numerical Reference	Test	Animal Materials and Products and Associated Things	Group	Markets
8.18	Organophosphates	Mammals, birds, fish, honey & dairy	Pesticides	<i>all</i>
8.19	Beta-Agonists	Mammals, birds, fish & dairy		<i>all</i>
8.20	Heavy Metals & Chemical Elements	Mammals, birds, fish, honey & dairy		<i>all</i>
	Mercury, cadmium, lead, chromium & arsenic	Fish meal		<i>China</i>
8.21	Organochlorines	Mammals, birds, fish, honey & dairy	Pesticides	<i>all</i>
8.22	Species identity and verification	Mammals, birds, fish, honey & dairy		<i>all</i>
8.23	Fluoroacetate/1080	Mammals, birds, fish, honey & dairy		<i>all</i>
8.25	Nitrofurans: furazolidone, furaltadone, nitrofurazone, nitrofurantoin, semicarbazide (SEM), aminooxizolidione (AOZ), aminomorpholino-oxizolidone (AMOZ), aminohydantoin (AH)	Mammals, birds, fish, honey & dairy	Antibacterial compounds	<i>all</i>
8.26	Anticoagulants	Mammals, birds, fish, honey & dairy		<i>all</i>
8.27	Dioxins, coplanar PCBs, and polybromodiphenyl ethers (PBrDPE) and PAHs	Mammals, birds, fish, honey & dairy		<i>all</i>
	Dioxins	Fish meal & fish oil		<i>China</i>
8.28	Quinolone antibiotics	Mammals, birds, fish, honey & dairy	Antibacterial compounds	<i>all</i>
8.29	Non-steroidal anti-inflammatory substances (NSAIDS) e.g. phenyl butazone	Mammals, birds, fish & dairy		<i>all</i>
8.30	Amprolium	Mammals and birds	Anticoccidials	<i>all</i>
8.31	Hormonal growth promotants	Mammals		<i>all</i>
8.32	Thyrostatic agents	Mammals, birds and fish		<i>all</i>
8.33	Prostagentic substances	Mammals, birds and fish		<i>all</i>
8.34	Corticosteroids	Mammals, birds, fish & dairy		<i>all</i>
8.35	Halofuginone	Mammals and birds	Anticoccidials	<i>all</i>

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Numerical Reference	Test	Animal Materials and Products and Associated Things	Group	Markets
8.36	Robenidene	Mammals, birds and fish	Anticoccidials	<i>all</i>
8.37	Malachite green and triphenyl methane dyes including gentian violet	Fish		<i>all</i>
	Malachite green	Fish meal & fish oil		<i>China</i>
8.38	Chlorpromazine	Mammals, birds and fish		<i>all</i>
8.39	Nicarbazin	Birds	Anticoccidials	<i>all</i>
8.40	Paradichlorobenzene (PDB)	Honey	Pesticides	<i>all</i>
8.41	Salicylanilides	Mammals, birds	Anthelmintics	<i>all</i>
8.42	Tutin	Honey		<i>all</i>
8.43	Melamine, dicyandiamide (DCD), cryomazine, dicyclanil and cyanuric acid	Mammals, fish and dairy		<i>all</i>
	Melamine	Fish meal		<i>China</i>
8.44	Lignocaine and Xylazine	Mammals and dairy	Sedative	<i>all</i>
8.45	Isoeugenol	Fish	Sedative	<i>all</i>
8.46	Fungicides	Mammals, birds, fish, honey & dairy	Fungicides	<i>all</i>
8.47	Herbicides	Mammals, birds, fish, honey & dairy	Herbicides	<i>all</i>
8.47.1	Glyphosate, including AMPA	Mammals, birds, fish, honey & dairy		<i>all</i>
8.48	Mycotoxins (fungal toxins)	Mammals, birds, fish, honey & dairy		<i>all</i>
8.49	Neonicotinoids	Mammals, birds, fish, honey & dairy		<i>all</i>
8.50	Pyrrolidiazine alkaloids	Honey		<i>all</i>
8.51	Fumagillin	Honey	Antibacterial compounds	<i>all</i>
8.52	Amitraz	Mammals, birds, fish, honey & dairy	Pesticides	<i>all</i>
8.53	Phthalates	Honey and dairy		<i>all</i>
8.54	Cleansing agents: phenols and cresols including chlorinated forms	Mammals, birds, fish, honey & dairy		<i>all</i>
8.55	Nitrate and nitrite	Dairy		<i>all</i>
8.57	Aldehydes	Dairy		<i>all</i>
8.58	Dapsone	Dairy		<i>all</i>

Note 'all' in column five 'Market' means where testing is a generic New Zealand requirement



Numerical Reference	Test	Animal Materials and Products and Associated Things	Group	Markets
8.59	Buparvaquone (BPQ)	Mammals and dairy		<i>all</i>
8.60	Quarternary ammonium compounds (QACs)	Dairy		<i>all</i>
8.61	Chlorhexidine	Dairy		<i>all</i>
8.62	Macrocyclic lactones	Dairy	Anthelmintic	<i>all</i>
8.63	Thiocyanates	Dairy		<i>all</i>
8.64	Bisphenol A	Dairy		<i>all</i>
8.65	Inhibitory substances	Dairy	Antibacterial compounds	<i>all</i>
8.66	Chlorate & perchlorate	Dairy		<i>all</i>
8.67	Nonphenyl ethoxylates (NPEs)	Dairy		<i>all</i>
8.68	3-monochloropropanediol (3-MCPD)	Dairy		<i>all</i>
8.69	Insecticides	Mammals, birds, fish, honey & dairy		<i>all</i>

Note 'all' in column five 'Market' means where testing is a generic New Zealand requirement



Numerical Reference	Test	Animal Materials and Products and Associated Things	Method	Markets
9.0 GELATINE FOR HUMAN FOOD				
In addition to the testing parameters below; shelf-life of product microbiological test methods for gelatine are found in 2.0 Meat & Meat Product, Poultry & Honey Microbiology/Parasitology.				
9.08	As	Residues parameter		EU
9.09	Pb	Residues parameter		
9.10	Hg	Residues parameter		
9.11	Cr	Residues parameter		
9.12	Cu	Residues parameter		
9.13	Zn	Residues parameter		
9.16	SO ₂	Residues parameter	Reith Williams	
9.17	H ₂ O ₂	Residues parameter	European Pharmacopoeia 1986 (V ₂ O ₂)	
9.18	Cd	Residues parameter		
10 HONEY				
10.02	Moisture	Honey		all
10.03	Reducing Sugars	Honey		all
10.04	<i>Leptospermum scoparium</i> DNA	Mānuka honey	PCR as per MPI Technical Paper 2016/74 latest version; or other DNA extraction method validated as equivalent, as per ISO 17025 accreditation. Substitution or modification of the ManKan™ Honey real time PCR kit is not permitted.	all
10.05	Four chemical characterisation compounds: 2'-Methoxyacetophenone (2'-MAP) 2-Methoxybenzoic acid (2-MBA) 3-Phenyllactic acid (3-PA) 4-Hydroxyphenyllactic acid (4-HPA)	Mānuka honey	Spectroscopy as per MPI Technical Paper 2016/73 latest version; or other method validated as equivalent, as per ISO 17025 accreditation.	all
11.1 SEAFOOD PRODUCTS POTABLE WATER				
11.1.1	Faecal coliforms	Potable water HC Spec Schedule 1 COP, Part 2, section 4	APHA 4 th edition 1970 MIMM 11.4 mFC MF MIMM 11.A2 MPN	all

Note 'all' in column five 'Market' means where testing is a generic New Zealand requirement



Numerical Reference	Test	Animal Materials and Products and Associated Things	Method	Markets
11.1.2	Total coliforms (coliform bacteria) <i>Escherichia coli</i>	Potable water HC Specs Schedule 1 COP, Part 2, Section 4	APHA 4 th edition 1970 MIMM 11.A1.1 rapid MIMM 11.A2 with 11.A2.6 MIMM 11.3/11.4 with 11.5	<i>all</i>
11.2 SEAFOOD PRODUCTS PROCESS WATER				
11.2.1	Faecal coliforms	Process water for ICSS listed premises HC Spec	APHA 4 th edition 1970 MIMM 11.4 mFC MF MIMM 11.A2 MPN	<i>all</i>
11.2.3	Total coliforms (coliform bacteria) <i>Escherichia coli</i>	Wet storage process water for ICSS listed premises HC Spec	APHA 4 th edition 1970 MIMM 11.A1.1 rapid MIMM 11.A2 with 11.A2.6 MIMM 11.3/11.4 with 11.5	<i>all</i>
11.2.4	Chemical physical parameters	Process water for ICSS listed premises HC Spec	Current editions of AOAC and APHA	<i>all</i>
11.3 SEAFOOD PRODUCTS DEPURATION WATER				
11.3.1	Faecal coliforms	Depuration process water for ICSS listed premises HC Spec	APHA 4 th edition 1970 MIMM 11.4 mFC MF MIMM 11.A2 MPN	<i>all</i>
11.3.3	Total coliforms (coliform bacteria) <i>Escherichia coli</i>	Depuration process water for ICSS listed premises HC Spec	APHA 4 th edition 1970 MIMM 11.A1.1 rapid MIMM 11.A2 with 11.A2.6 MIMM 11.3/11.4 with 11.5	<i>all</i>
11.4 SEAFOOD PRODUCTS SEAWATER				
11.4.1	<i>Escherichia coli</i>	Clean seawater for land based premises HC Spec Schedule 2	No method specified	<i>all</i>
		Clean seawater for fishing vessels HC Spec	No method specified Testing only required at the discretion of D-G	<i>all</i>
11.4.2	Total coliforms	Clean seawater for land based premises HC Spec Schedule 2	No method specified	<i>all</i>

Note 'all' in column five 'Market' means where testing is a generic New Zealand requirement



Numerical Reference	Test	Animal Materials and Products and Associated Things	Method	Markets
		Clean seawater for fishing vessels Limited Processing Fishing Vessels RCS clause 20 and HC Spec	No method specified Testing only required at the discretion of D-G	<i>all</i>
11.5 ALL FISH				
Note regarding fish meal, fish lipids and oils refer to sections 2.0 Meat & Meat Product, Poultry & Honey Microbiology/Parasitology, section 4.0 Tallow, Fats and Oils, section 6.0 Animal Products in General – Composition (includes vitamins, minerals and other nutrients) and section 8.0 Animal Products Chemical Residue Testing (NCRP & NCCP) and OMAR				
11.5.3	SPC, also known as total viable count (TVC), total plate count (TPC) or APC	All fish	No method specified	<i>India, Eurasian Economic Union</i>
11.5.4	<i>Staphylococcus aureus</i>	All fish	No method specified	<i>India</i>
11.5.6	<i>Vibrio parahaemolyticus</i>	All fish	As per current edition APHA or FDA BAM as per laboratory's scope of accreditation	<i>India</i>
11.5.7	Heavy metals	All fish	As per current edition AOAC and APHA as per laboratory's scope of accreditation	<i>EU</i>
		Fish species and heavy metals as specified		<i>Mauritius</i>
11.5.8	Histamine	Fish species as specified	As per ISO 17025 accreditation	<i>EU, Mauritius</i>
		Fish species matured in brine		<i>EU</i>
		All fish HC Specs		<i>all</i>
11.5.9	Total Volatile Basic Nitrogen (TVB-N)	All fish	TVB-N Fish Ziebensen or Journal of Food Protection 52, Issue 6, 1989 or APHA 4 th compendium.	<i>EU, Mauritius</i>
11.5.10	<i>Escherichia coli</i>	All fish	MPN method	<i>India</i>
11.5.11	<i>Salmonella</i>	All fish	No method specified	<i>India, Eurasian Economic Union</i>
11.5.12	<i>Vibrio cholerae</i>	All fish	As per current edition of APHA or FDA BAM	<i>India</i>
11.6 BIVALVE MULLUSCAN SHELLFISH, CRUSTACEANS & CEPHALOPODS UNCOOKED				
11.6.1	Faecal coliforms	Bivalve molluscan shellfish growing waters Clause 88(1) BMS RCS Specs	Approved methods as recommended by the National Shellfish Sanitation Programme (APHA 4th Ed 1970)	<i>all</i>

Note 'all' in column five 'Market' means where testing is a generic New Zealand requirement



Numerical Reference	Test	Animal Materials and Products and Associated Things	Method	Markets
11.6.2	<i>Escherichia coli</i>	Bivalve molluscan shellfish (flesh) Clause 88(1) BMS RCS Specs, EU OMAR	Enumeration of <i>Escherichia coli</i> in Molluscan Bivalve Shellfish, MPI Method	all
		Raw harvested bivalve molluscan shellfish HC Spec		all
		Live bivalve molluscs and live echinoderms, tunicates and gastropods		EU
		Crustaceans, cephalopods and molluscs		India
11.6.3	<i>Salmonella</i>	Raw harvested bivalve molluscan shellfish HC Spec	ISO 6579-1 (latest version)	all
		Live bivalve molluscs and live echinoderms, tunicates and gastropods		EU
		Bivalve molluscan shellfish		Eurasian Economic Union
		Crustaceans, cephalopods and molluscs. Mollusc meal and powder		India
11.6.4	<i>Vibrio parahaemolyticus</i>	Bivalve molluscan shellfish Clause 77 BMS RCS Specs	FDA BAM (most current edition)	all
		Crustaceans, cephalopods and molluscs. Mollusc meal and powder		India
11.6.5	<i>Vibrio vulnificus</i>	Bivalve molluscan shellfish Clause 77 BMS RCS Specs	FDA BAM (current edition)	all
11.6.6	Heavy metals	Bivalve molluscan shellfish, Clause 7(6) BMS RCS Specs	Current editions of AOAC and APHA.	all
		Bivalve molluscan shellfish, crustaceans, cephalopods		EU
		Crustaceans, cephalopods and molluscs. Mollusc meal and powder		India

Note 'all' in column five 'Market' means where testing is a generic New Zealand requirement



Numerical Reference	Test	Animal Materials and Products and Associated Things	Method	Markets
11.6.7	APC, TPC	Bivalve molluscan shellfish		<i>Eurasian Economic Union, Singapore</i>
		Crustaceans, cephalopods and molluscs		<i>India</i>
11.6.8	<i>Staphylococcus aureus</i>	Crustaceans, cephalopods and molluscs		<i>India</i>
11.6.9	<i>Vibrio cholerae</i>	Bivalve molluscan shellfish		<i>Singapore</i>
		Crustaceans, cephalopods and molluscs. Mollusc meal and powder		<i>India</i>
11.6.10	Norovirus	Frozen Oysters		<i>Singapore</i>
		Mollusc meal and powder		<i>India</i>
11.7 SHELLFISH BIOTOXINS				
11.7.1	PSP	Bivalve molluscan shellfish HC Spec, EU OMAR, Clause 88(1) BMS RCS Specs	DG approved methods only	<i>all</i>
11.7.2	DSP			
11.7.3	NSP			
11.7.4	ASP			
11.7.5	PTX			
11.7.6	YTX			
11.7.7	AZP			
11.8 COOKED SEAFOOD PRODUCT				
11.8.1	<i>Escherichia coli</i>	Cooked crustaceans and molluscan shellfish	Enumeration of <i>Escherichia coli</i> in Molluscan Bivalve Shellfish, MPI Method	<i>EU</i>
11.8.2	<i>Salmonella</i>	Frozen pre-cooked crustaceans (flesh only) and cooked crustaceans Cooked crustaceans and molluscan shellfish	ISO 6579-1 (latest version)	<i>EU</i>
		Fishery products including bivalve molluscan shellfish	No method specified	<i>Eurasian Economic Union</i>

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Numerical Reference	Test	Animal Materials and Products and Associated Things	Method	Markets
11.8.5	<i>Listeria monocytogenes</i>	Ready-to-eat fish, shellfish, crabs, rock lobster, fish products and environmental samples HC Spec	Presence/absence testing Method as per ISO 17025 accreditation	<i>all</i>
		Ready-to-eat foods able to support the growth of <i>Listeria monocytogenes</i> , other than those intended for infants and special medicinal purposes <i>before the product has left the manufacturer's control and where the operator is unable to satisfy MPI that the product will not exceed 100 cfu/g during the product's shelf-life</i>		<i>EU</i>
		Ready-to-eat foods able to support the growth of <i>Listeria monocytogenes</i> , other than those intended for infants and special medicinal purposes <i>where the operator can satisfy MPI that the product will not exceed 100 cfu/g during the product's shelf-life</i>	Enumeration testing Method as per ISO 17025 accreditation	<i>EU</i>
11.8.6	APC	Fishery products, including bivalve molluscan shellfish	No methods specified	<i>Eurasian Economic Union</i>

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Numerical Reference	Test	Animal Materials and Products and Associated Things	Method
DAIRY (RAW MILK)			
30.1	Somatic Cells	Raw milk	
30.2	Inhibitory Substances	Raw milk (all species)	One or more methods for this test is listed in http://www.foodsafety.govt.nz/industry/sectors/dairy/monitoring-testing/laboratories/testing.htm under this link http://www.foodsafety.govt.nz/elibrary/industry/Approved_Test.xls
30.3	Freezing point (to detect water adulterant)	Raw milk (all species)	
30.4	Urea (milk integrity)	Raw milk (all species)	
30.5	APC	Raw milk (all species)	
30.6	Total coliforms	Raw milk (all species)	
30.7	Thermoturics	Raw milk (all species)	
30.8	Foreign matter	Raw milk (all species)	
30.9	Titrateable acidity	Raw milk (all species)	
DAIRY PRODUCTS - MICROBIOLOGY			
31.1	APC / SPC / TCC	All dairy products	
31.2	<i>Bacillus cereus</i>	All dairy products	
31.2.1	<i>Bacillus cereus</i> Enterotoxin	All dairy products	
31.3	<i>Campylobacter</i>	All dairy products	
31.4	<i>Clostridium botulinum</i>	All dairy products	
31.5	<i>Clostridium perfringens</i>	All dairy products	
31.6	Coliforms (count)	All dairy products	
31.7	<i>Escherichia coli</i>	All dairy products	
31.8	Enterobacteriaceae	All dairy products	
31.9	Faecal coliforms	All dairy products	
31.10	<i>Listeria monocytogenes</i>	All dairy products	
31.11	Lipolytic organisms	All dairy products	
31.12	<i>Salmonella</i> (detection)	All dairy products	
31.13	Staphylococcal Enterotoxin	All dairy products	

Note 'all' in column five 'Market' means where testing is a generic New Zealand requirement



Numerical Reference	Test	Animal Materials and Products and Associated Things	Method
31.14	<i>Staphylococcus aureus</i> (<i>Staphylococcus</i> , Coagulase Positive)	All dairy products	
31.15	Sulphite-reducing Clostridia (SRC)	All dairy products	
31.16	Yeasts and Moulds	All dairy products	
31.17	<i>Cronobacter sakazakii</i> (previously genus name was <i>Enterobacter</i>)	Infant formula	
DAIRY PRODUCTS - COMPOSITION (includes standards of identity, vitamins, minerals and other nutrients)			
32.1	Fat	All dairy products	
32.2	Fatty Acids	All dairy products	
32.3	Moisture	All dairy products	
32.4	Protein	All dairy products	
32.5	Solids Non-Fat	All dairy products	
32.6	Salt	All dairy products	
32.7	Vitamin A (retinol)	All dairy products	
32.8	Vitamin D2 (ergocalciferol) & Vitamin D3 (cholecalciferol)	All dairy products	
32.9	Minerals: Sodium, Potassium, Chloride	All dairy products	
32.10	Sugar	Icecream	
32.11	Biotin	Infant formula composition	
32.12	Calcium	Infant formula composition	
32.13	Chloride	Infant formula composition	
32.14	Folic acid	Infant formula composition	
32.15	Ganglioside	Infant formula composition	
32.16	Inositol	Infant formula composition	
32.17	Inulin	Infant formula composition	
32.18	Iodine value	Infant formula composition	

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Numerical Reference	Test	Animal Materials and Products and Associated Things	Method
32.20	Lutein	Infant formula composition	
32.21	Nucleotides	Infant formula composition	
32.22	Protein	Infant formula composition	
32.23	Taurine	Infant formula composition	
32.24	Vitamin A	Infant formula composition	
32.25	Vitamin B1	Infant formula composition	
32.26	Vitamin B2	Infant formula composition	
32.27	Vitamin B3	Infant formula composition	
32.28	Vitamin B5	Infant formula composition	
32.29	Vitamin B6	All dairy products including infant formula	
32.30	Vitamin B12	Infant formula composition	
32.31	Vitamin C	Infant formula composition	
32.32	Vitamin K1	All dairy products including infant formula	
32.33	Immunoglobulins	All dairy products	
32.34	Lactose	All dairy products	
32.35	Sterols	All dairy products	
32.36	Total Solids	All dairy products	

Note 'all' in column five 'Market' means where testing is a generic New Zealand requirement



Numerical Reference	Test	Animal Materials and Products and Associated Things	Method
DAIRY PRODUCTS - PHYSICAL & CHEMICAL TESTS			
33.1	Foreign Matter	All dairy products	One or more methods for this test is listed in http://www.foodsafety.govt.nz/industry/sectors/dairy/monitoring-testing/laboratories/testing.htm under this link http://www.foodsafety.govt.nz/elibrary/industry/Approved_Test.xls
33.2	Sediment	All dairy products	
33.3	Freezing point (to detect water adulterant)	All dairy products	
33.4	Phosphatase	All dairy products	
33.5	Reichart-Meissl Value (fat)	All dairy products	
33.6	Polenske Value (fat)	All dairy products	
33.7	pH	All dairy products	
33.8	Titratable Acidity	All dairy products	
33.9	Solubility (insolubility index)	All dairy products	
33.10	Aflatoxin	All dairy products	
33.11	Peroxide value	All dairy products	
33.12	Radionuclides	All dairy products	
33.13	Ash	All dairy products	
33.14	Hydrogen peroxide	All dairy products	
33.15	Scorched particles	All dairy products	



Numerical Reference	Test	Method
LIVE ANIMALS and GERMLASM – DISEASE TESTS		
51.1	<i>Aeromonas salmonicida</i>	Bacterial culture, propagation
52.1	Akabane virus	Virus neutralisation test (VNT), antibody detection
53.1	Anaplasmosis	Complement fixation test (CFT), antibody detection
54.1	Avian influenza virus	Agar-gel immunodiffusion test (AGID test), antibody detection
55.1	Avian influenza virus	Enzyme-linked immunosorbent assay – antibody detection (ELISA-Ab), antibody
55.2	Avian influenza virus	Hemagglutination inhibition test (HI), antibody detection
55.3	Avian influenza virus	Virus isolation (VI), propagation
55.4	Avian paramyxovirus serotype 1 (APMV-1)-NDV	Polymerase chain reaction - RNA, DNA detection (PCR), molecular biology
55.5	Avian paramyxovirus serotype 2 (APMV-2)-Yucaipa	HI, antibody detection
55.6	Avian paramyxovirus serotype 2 (APMV-2)-Yucaipa	PCR, molecular biology
55.7	Avian paramyxovirus serotype 3 (APMV-3)	HI, antibody detection
55.8	Avian paramyxovirus serotype 3 (APMV-3)	PCR, molecular biology
55.9	Avian pneumovirus (turkey rhinotracheitis)	ELISA-Ab, antibody detection
56.1	<i>Babesia caballi</i>	ELISA-Ab, antibody detection
56.2	<i>Babesia caballi</i>	Immunofluorescence antibody test (IFAT), antibody detection
56.3	<i>Babesia gibsoni</i>	IFAT, antibody detection
56.4	<i>Babesia gibsoni</i>	PCR, molecular biology
56.5	Blood parasites (<i>Babesia</i> spp.)	Blood smear, visualisation
57.1	Bluetongue virus	AGID test – antibody detection
57.2	Bluetongue virus	ELISA-Ab, antibody detection
58.1	Bovine herpesvirus 1	PCR, molecular biology
59.1	Bovine viral diarrhoea virus (BVDV)	ELISA-Ab, antibody detection
59.2	Bovine viral diarrhoea virus (BVDV)	Enzyme-linked immunosorbent assay – antigen detection (ELISA-Ag), antigen detection
59.3	Bovine viral diarrhoea virus (BVDV)	PCR, molecular biology
59.4	Bovine viral diarrhoea virus (BVDV)	VI, propagation
59.5	Bovine viral diarrhoea virus (BVDV)	VNT, antibody detection

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Numerical Reference	Test	Method
59.6	Bovine viral diarrhoea virus (BVDV)	2 passages, propagation
60.1	<i>Brucella abortus</i>	Serum agglutination test (SAT), antibody detection
60.2	<i>Brucella abortus</i>	Serum agglutination test - European (SAT EU as per current EU OMAR), antibody detection
60.3	<i>Brucella canis</i>	Rapid slide agglutination (RSA), antibody detection
60.4	<i>Brucella ovis</i>	ELISA-Ab, antibody detection
60.5	<i>Brucella ovis</i>	CFT, antibody detection
60.6	<i>Brucella</i> spp. (<i>B. abortus</i> and/or <i>B. melitensis</i> and/or <i>B suis</i>)	ELISA-Ab, antibody detection
60.7	<i>Brucella</i> spp. (<i>B. abortus</i> and/or <i>B. melitensis</i>)	CFT, antibody detection
61.1	<i>Campylobacter</i> spp.	Bacterial culture, propagation
61.2	<i>Campylobacter fetus</i> subsp. <i>venerealis</i>	Bacterial culture, propagation
62.1	Canine/feline heartworm	ELISA-Ag, antigen detection
63.1	Caprine arthritis-encephalitis (CAE) virus	ELISA-Ab, antibody
64.1	Cervine herpesvirus type-1	VNT, antibody detection
65.1	Cytopathic fish virus	VI, propagation
66.1	EDS 76	HI, antibody detection
67.1	<i>Ehrlichia canis</i>	IFAT, antibody detection
68.1	Enzootic bovine leukosis (EBL)	ELISA-Ab, antibody detection
68.2	Enzootic bovine leukosis (EBL)	AGID, antibody detection
69.1	Epizootic haemorrhagic disease (EHD)	AGID, antibody detection
70.1	Equine herpes virus	VNT, antibody detection
70.2	Equine herpes virus - 1	ELISA-Ab, antibody detection
70.3	Equine herpes virus - 4	ELISA-Ab, antibody detection
71.1	Equine infectious anaemia	AGID, antibody detection
71.2	Equine influenza virus	HI, antibody detection
71.3	Equine influenza virus	PCR, molecular biology
72.1	Equine viral arteritis (EVA) virus	VI, propagation
72.2	Equine viral arteritis (EVA) virus	VNT, antibody detection
73.1	Infectious bovine rhinotracheitis (IBR)	ELISA-Ab, antibody detection
73.2	Infectious bovine rhinotracheitis (IBR)	VNT, antibody detection
73.3	Infectious bovine rhinotracheitis (IBR)	VI, propagation

Note 'all' in column five 'Market' means where testing is a generic New Zealand requirement



Numerical Reference	Test	Method
74.1	Infectious bursal disease (IBD)	ELISA-Ab, antibody detection
74.2	Infectious bursal disease (IBD)	PCR, molecular biology
74.3	Infectious bursal disease (IBD)	VNT, antibody detection
75.1	Influenza	PCR, molecular biology
75.2	Influenza A + B	Lateral flow device (LFD), antigen detection
76.1	Johne's disease (JD)	AGID, antibody detection
76.2	Johne's disease (JD)	CFT, antibody detection
76.3	Johne's disease (JD)	ELISA-Ab, antibody detection
77.1	<i>Leishmania</i> spp.	IFAT, antibody detection
77.2	<i>Leptospira ballum</i> (1)	Microscopic agglutination test (MAT), antibody detection
77.3	<i>Leptospira bratislava</i> (2)	MAT, antibody detection
77.4	<i>Leptospira canicola</i> (3)	MAT, antibody detection
77.5	<i>Leptospira copenhageni</i> (4)	MAT, antibody detection
77.6	<i>Leptospira grippotyphosa</i> (5)	MAT, antibody detection
77.7	<i>Leptospira hardjo-bovis</i> (6)	MAT, antibody detection
77.8	<i>Leptospira iceterohaemorrhagiae</i> (7)	MAT, antibody detection
77.9	<i>Leptospira pomona</i> (8)	MAT, antibody detection
77.10	<i>Leptospira tarassovi</i> (9)	MAT, antibody detection
78.1	Lyssa virus	IFAT, antibody detection
79.1	Maedi visna (MV) virus	ELISA-Ab, antibody detection
80.1	Malignant catarrhal fever	PCR, molecular biology
81.1	Microfilariae	Knott's test, visualisation
82.1	<i>Mycoplasma</i> spp.	Bacterial culture, propagation
82.2	<i>Mycoplasma agalactiae</i>	ELISA-Ab, antibody detection
82.3	<i>Mycoplasma capricolum</i> subsp. <i>capricolum</i>	CFT antibody detection
83.4	<i>Mycoplasma gallisepticum</i>	RSA, antibody
84.5	<i>Mycoplasma mycoides mycoides</i> Large colony	CFT antibody detection
85.6	<i>Mycoplasma synoviae</i>	RSA, antibody
86.7	<i>Mycoplasma meleagridis</i>	RSA, antibody detection
87.8	<i>Myxobolus cerebralis</i>	Microscopy, visualisation
88.1	Newcastle disease virus (NDV)	ELISA-Ab, antibody detection
88.2	Newcastle disease virus (NDV)	HI, antibody detection
88.3	Newcastle disease virus (NDV)	VI, propagation
89.1	<i>Ornithobacterium rhinotracheale</i>	Bacterial culture, propagation

Note 'all' in column five 'Market' means where testing is a generic New Zealand requirement



Numerical Reference	Test	Method
90.1	Palyam virus	AGID, antibody detection
91.1	Parainfluenza virus type-3	VI, propagation
92.1	Parasite eggs	Faecal egg count, visualisation
93.1	Pestivirus/hairy shaker disease virus/ border disease virus	VI, propagation
93.2	Hairy shaker disease virus / border disease virus	2 passages, propagation
94.1	Porcine parvovirus	ELISA-Ab, antibody detection
95.1	Q fever	CFT, antibody detection
95.2	Q fever	ELISA-Ab, antibody detection
95.3	Q fever	PCR, molecular biology
96.1	Rabies virus	Rapid fluorescent focus inhibition test (RFFIT), antibody detection
97.1	<i>Renibacterium salmoninarum</i>	PCR, molecular biology
98.1	<i>Salmonella</i> spp	Bacterial culture, propagation
98.2	<i>Salmonella</i> spp	ELISA-Ab, antibody detection
98.3	<i>Salmonella</i> specific serotypes: including <i>S. Typhimurium</i> and <i>S. Enteritidis</i>	Bacterial culture, propagation
98.4	<i>Salmonella arizona</i>	Bacterial culture, propagation
98.5	<i>Salmonella pullorum</i>	SAT, antibody detection
99.1	<i>Streptococcus equi</i> subsp., <i>equi</i> culture	Bacterial culture, propagation
100.1	<i>Taylorella equigenitalis</i>	Bacterial culture, propagation
101.1	<i>Theileria equi</i>	ELISA-Ab, antibody detection
101.2	<i>Theileria equi</i>	IFAT, antibody detection
102.1	Ticks	Identification, visualisation
103.1	<i>Trichinella spiralis</i>	ELISA, antibody detection
103.2	<i>Trichinella spiralis</i>	Pepsin digestion, visualisation
103.3	<i>Trichomonas foetus</i>	Bacterial culture, propagation
104.1	<i>Yersinia ruckeri</i>	Bacterial culture, propagation
105.1	West Nile Virus	ELISA-Ab, antibody detection



Part 2 Designated ILCP

1.0 Background

The objective of the designated Inter-laboratory Comparison Programme (ILCP) is to determine a laboratory's capability to conduct microbiological testing for potable water, meat, poultry and seafood, and chemical testing for meat, tallow, fats, and potable water for tests (as applicable) in the *MPI Consolidated List of Tests for Animal Products: meat, poultry, honey, seafood, dairy, live animals and germplasm (CLT)* as specified in the following Tables 1 to 7.

2.0 Requirements

- (1) Tables 1 to 7 specify the particular designated ILCP test that laboratories that are recognised, under the Animal Products Act 1999 (APA), must conduct in relation to the particular CLT tests that are listed in those tables.
- (2) Laboratories must notify the ILCP provider to obtain proficiency samples if any of these specified CLT tests are in their scope of recognition under the APA and must cover the cost of the samples.
- (3) Tables 1 to 7 specify the minimum number of rounds required. A 'round' means each time the ILCP Provider sends proficiency samples to a laboratory.
- (4) The ILCP provider will send the laboratory a set of samples (e.g. freeze dried vials for potable water, meat, poultry and seafood product microbiological samples, or meat and bone meal or meat paste for meat product chemistry samples, or tallow for tallow and fat chemistry samples, or potable water for potable water chemistry) with an amount of the parameter to be tested e.g. a microbiological organism(s) or chemical(s) of concern of which the presence and quantity is unknown by the laboratory receiving the sample.
- (5) On receipt of an ILCP sample, the laboratories are required to determine presence, absence, identity and/or count (where applicable) of microorganisms present and/or perform chemical analyses to establish the levels present of chemical parameters of concern.
- (6) The laboratory must undertake the designated ILCP test within 48 hours of receipt of any microbiological sample, and as soon as practicable for chemistry samples such that results of either microbiological testing or chemistry testing can be reported to the ILCP provider by the results due date for the round, established by the ILCP provider.
- (7) After the results due date, the round is closed. Statistical analysis is performed on the data sets by the ILCP provider. Laboratory performance is evaluated and reports are distributed electronically by the ILCP provider. A summary of round performance is reported directly to MPI by the ILCP provider each month in addition to the individual reports being sent to each respective participating laboratory.



3.0 Warning or Action performance rating notification responses

- (1) In the event of a 'warning' performance rating reported by the ILCP provider the laboratory must undertake the minimum of an internal investigation as soon as practicable.

4.0 Minor (m) defect category and follow up action

- (1) The ILCP provider must assign a minor defect (m) category when a second 'warning' performance rating is given in the following round for the same ILCP type of test, or where individual results in any round are assigned an 'action' rating.
- (2) In the event of a minor (m) defect category performance rating notification reported by the ILCP provider the laboratory must:
 - a) request a re-test sample within two working days following receipt of the notification by the ILCP provider, except where evidence is provided that the error was not related to performance of the analysis (e.g. was a transcription error); and
 - b) complete testing of re-test samples within five working days following a receipt of a re-test sample and send results back to the ILCP provider; and
 - c) carry out and document an investigation as to the cause of the warning or action rating notification and take corrective action as necessary.

5.0 Major (M) defect category and follow up action

- (1) The ILCP provider must assign a major (M) defect category when a 'warning' or 'action' rating notification is reported on a retest sample.
- (2) In the event of a major (M) defect category performance rating notification reported by the ILCP provider the laboratory must:
 - a) request a further re-test sample within two working days following the receipt of the notification by the ILCP provider, except where evidence is provided that the error was not related to performance of the analysis (e.g. was a transcription error); and
 - b) complete testing of re-test samples within five working days following receipt of a re-test sample and send results back to the ILCP provider; and
 - c) in the case of a major (M) defect category performance rating notification in relation to a test or tests described in Table 1, in addition to the re-tests required in subclause (a) and (b) above, the laboratory must conduct re-tests in the intervening months between the minimum number of rounds per year if such re-test samples are supplied by the ILCP provider; and
 - d) as soon as practicable after receiving the major (M) defect category performance rating notification on a retest sample carry out and document an investigation as to the cause of the 'warning' or 'action' rating notification on the retest sample and take corrective action as necessary.



6.0 Critical (C) defect category and follow up action

- (1) The ILCP provide must assign a Critical (C) defect category in the event of:
 - a) a further 'warning' or 'action' rating notification on a retest sample carried out under clause 5.0; or
 - b) non-participation by a laboratory in the next round following a major (M) performance rating notification reported on that laboratory; or
 - c) failure by the laboratory to follow-up and report back to the ILCP provider on a major (M) defect category performance rating notification; or
 - d) failure by the laboratory to participate in the required number of ILCP rounds for the specified tests for which the laboratory is recognised.
- (2) In the event of a Critical (C) defect category performance rating notification being issued to the laboratory by the ILCP provider, the laboratory must:
 - a) resume participation in the required number of ILCP rounds relevant to all specified tests for which the laboratory is recognised; and
 - b) must demonstrate its capability by:
 - i) determining and undertaking corrective actions to ensure testing proficiency is regained; and
 - ii) undertaking any repeat testing required by the ILCP provider and reporting back to the ILCP provider on the results obtained and;
 - iii) undertaking any other actions required by the Director-General to reinstate laboratory competence.
- (3) In deciding what actions to impose under subclause 2 (b) iii), the Director General must consider the following matters:
 - a) the need to ensure that an ongoing and consistent standard of laboratory performance is maintained by all recognised laboratories conducting tests with public health significance or high levels of market access sensitivity; and
 - b) the need to enable analysis and comparison by MPI of laboratory testing of animal material and animal products concerned to underpin the development of new MPI strategies to improve risk management for key tests.

7.0 Resumption of ILCP testing following closure

- (1) If a laboratory closure occurs following a major (M) defect category being assigned by the ILCP provider or a critical (C) defect category being assigned by the ILCP provider, the first ILCP round following the reopening of the laboratory must be treated as if it had followed immediately on the ILCP rounds prior to the closure.



Table 1: Potable Water Microbiology Comparative Programme (meat, poultry & seafood)

		Designated ILCP	
Numerical reference	CLT Test	ILCP Test Name	Minimum number of rounds per year
1.3	SPC 22°C/72 hours	Standard plate count SPC22	6
1.1.1	Total coliforms (coliform bacteria), <i>Escherichia coli</i>	Total coliforms, <i>E. coli</i>	6
11.1.2			
1.2	Faecal coliforms	Faecal coliforms	6
11.1.1			
1.6.1	<i>Clostridium perfringens</i> (including spores)	<i>Clostridium perfringens</i>	

Laboratories must complete six rounds of ILCP tests per year, for each method they are recognised for.

Table 2: Meat and Poultry Microbiology Comparative Programme

		Designated ILCP	
Numerical reference	CLT Test	ILCP Test Name	Minimum number of rounds per year
2.1.1	Aerobic Plate Count (APC)	APC 30 (SPC)	11
2.1.2	APC spread plate		
2.1.3	APC Petrifilm		
2.1.4	APC spiral plater		
2.2.1	<i>Escherichia coli</i> , direct plate of Petrifilm	<i>E. coli</i>	11
2.2.2	<i>Escherichia coli</i> , Petrifilm		
2.3	<i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	2
2.8 & 2.8.1	<i>Clostridium perfringens</i>	<i>Clostridium perfringens</i>	2
2.9	Enterobacteriaceae	Enterobacteriaceae	2
2.10	Faecal coliforms	Faecal coliforms	2



Table 3: Seafood Microbiology Comparative Programme

Numerical reference	CLT Test	Designated ILCP	
		ILCP Test Name	Minimum number of rounds per year
11.5.3	SPC, also known as Total Viable Count (TVC), Total Plate Count (TPC) or Aerobic Plate Count (APC)	APC (SPC)	4
11.6.7	APC		
11.8.6	APC		
11.5.10	<i>Escherichia coli</i>	<i>E. coli</i>	4
11.6.2	<i>Escherichia coli</i>		
11.8.1	<i>Escherichia coli</i>		
11.6.1	Faecal coliforms	Faecal coliforms	4
11.5.4	<i>Staphylococcus aureus</i>	<i>Staphylococcus aureus</i>	4

Table 4: Pathogen microbiology comparative programme (meat, poultry & seafood)

Numerical reference	CLT Test	Designated ILCP	
		ILCP Test Name	Minimum number of rounds per year
2.4.1	<i>Salmonella</i>	<i>Salmonella</i>	2 rounds per year for each <i>Salmonella</i> method the laboratory is recognised for.
2.4.2	<i>Salmonella</i>		
2.4.3	<i>Salmonella</i>		
11.5.11	<i>Salmonella</i>		
11.6.3	<i>Salmonella</i>		
11.8.2	<i>Salmonella</i>		
2.6	<i>Listeria monocytogenes</i>	<i>Listeria monocytogenes</i> presence/absence and enumeration	2 rounds per year for each <i>Listeria monocytogenes</i> method the laboratory is recognised for.
11.8.5	<i>Listeria monocytogenes</i>		
22.1	<i>Campylobacter</i>	<i>Campylobacter</i> enumeration	2
23.1	<i>Escherichia coli</i> O157:H7	<i>Escherichia coli</i> O157:H7 and Top 6 nSTECs	2
23.2	Non-O157 Shiga Toxin-producing <i>Escherichia coli</i>		
23.3	Top 7 Shiga Toxin-producing <i>Escherichia coli</i>		
23.1.1	Primary <i>Escherichia coli</i> O157:H7 culture isolation using immunomagnetic separation (IMS)	<i>Escherichia coli</i> O157:H7 isolation using IMS	2
11.5.6	<i>Vibrio parahaemolyticus</i>	<i>Vibrio parahaemolyticus</i>	2
11.6.4	<i>Vibrio parahaemolyticus</i>		



Table 5: Meat chemistry comparative programme

Numerical reference	CLT Test	Designated ILCP	
		ILCP Test Name	Minimum number of rounds per year
3.1.1	Proximate analysis - Ash	Ash	6
3.1.2	Proximate analysis - Fat	Fat	6
3.1.3	Proximate analysis - Moisture	Moisture	6
3.1.4	Proximate analysis - Protein	Protein	6

The laboratory must complete 6 rounds per year for each of the two matrices (meat and bone meal, and meat paste).

Table 6: Tallow and Fats; rendered fats from ruminant materials comparative programme

Numerical reference	CLT Test	Designated ILCP	
		ILCP Test Name	Minimum number of rounds per year
4.01	Insoluble impurities	Insoluble impurities	2
4.02	Free fatty acids (FFA) (m/m % oleic acid)	FFA (m/m % oleic acid)	6
4.03	Peroxide	Peroxide	6
4.04	Moisture	Moisture	6

Table 7: Potable water chemistry comparative programme; all markets - surveillance of potable water in meat & game export premises

Numerical reference	CLT Test	Designated ILCP	
		ILCP Test Name	Minimum number of rounds per year
5.02	Conductivity	Conductivity	2
5.03	pH (hydrogen ion concentration)	pH	2
5.04	Turbidity	Turbidity	2
5.10	Ammoniacal nitrogen (ammonium)	Ammoniacal nitrogen (ammonium)	2
5.13	Nitrate	Nitrate	2
5.14	Nitrite	Nitrite	2



Part 3 Abbreviations and Definitions

- AOAC = Association of Official Analytical Chemists
- AOCS = Official Methods and Recommended Practices of the American Oil Chemist's Society AOCS
- APC = Aerobic Plate Count
- APHA 4th edition 1970 = American Public Health Association. 1970. Recommended Procedures for the Examination of Sea Water and Shellfish, 4th edition, APHA, New York, N.Y. Note that this edition is out of print, but this is the edition specified by FDA. Library copies are held at ESR Christchurch and ESR Mt Albert
- APHA = Standard Methods for the Examination of Water and Wastewater (American Public Health Association) latest edition
- BMS RCS Specs = Animal Products (Specifications for Bivalve Molluscan Shellfish) Notice 2006
- COP = Code of Practice, Processing of Seafood Products
- *E. coli* = *Escherichia coli*
- EOLs = End-of-lay chickens
- FFA = free fatty acids
- FDA BAM = U.S. Food and Drug Administration Bacteriological Analytical Manual (BAM)
- HC Spec = Animal Products Notice: Specifications for Products Intended for Human Consumption (current edition)
- HPLC = high pressure liquid chromatography
- ILCP = inter-laboratory comparison programme
- ILCP provider means a supplier of proficiency testing services for laboratory testing who is accredited to ISO/IEC 17403
- IMS = immunomagnetic separation
- MF = membrane filtration
- MIMM = Meat Industry Microbiological Methods, latest edition
- MIRINZ 831 = Morris M.A., Methods for Determining the Physical and Chemical Properties of Products and Wastes of Rendering Departments
[Volume 831 of MIRINZ \(Series\)](#)
- NCCP = National Chemical Contaminants Programme (dairy)
- NCRP = National Chemical Residue Programme (non-dairy)
- NMD = Animal Products Notice: Specifications for National Microbiological Database Programme (current edition)
- nSTEC = non-O157 Shiga Toxin-producing *Escherichia coli*
- OMAR = Overseas Market Access Requirement
<http://www.foodsafety.govt.nz/industry/exporting/market-access/omars.htm>
- pH = hydrogen ion concentration
- RCS = Regulated Control Scheme
- SPC = Standard Plate Count
- spp. = species
- TBC = Total Bacterial Count



- Top 6 nSTEC = non-O157 Shiga Toxin-producing *Escherichia coli* which are positive for both the *eae* gene and for one or both *stx* genes (*stx1*, *stx2*) and are one of the following O serotypes: O26, O45, O103, O111, O121 and O145
- Top 7 STEC = Shiga Toxin-producing *Escherichia coli* which are positive for both the *eae* gene and for one or both *stx* genes (*stx1*, *stx2*) and are one of the following O serotypes: O26, O45, O103, O111, O121, O145 and O157
- TPC = Total Plate Count
- TVC = Total Viable Count



Part 4 Composite Sampling

- (1) Microbiological composite testing must only be used to determine presence or absence of particular pathogens (not enumeration);
- (2) Microbiological or chemical composite sampling must provide:
 - a) clear identification of:
 - i. the type of product being sampled; and
 - ii. the production lot(s) or batch(es) or consignment(s) from which the product concerned is sampled; and
 - b) defined criteria for the selection of representative product to sample; and
 - c) defined procedures for mixing of samples to form the composite and the aliquot of the composite sample selected; and
 - d) robust validation for the analysis including:
 - i. the maximum sample/volume weight that is suitable for the test; and
 - ii. level of sensitivity that will be achieved by compositing compared to discrete sample testing; and
 - iii. clarity that when compositing the whole production lot(s) or batch(es) or consignment(s) of the product sampled will pass or fail the test.
- 3) The test report must clearly identify the nature of the composite;
- 4) Composite testing must not be undertaken where discrete testing of a specified quantity of representative samples is stipulated in the test method.