





National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)



SCOPE OF ACCREDITATION

Laboratory National Food and Feed Reference Laboratory, Department of Food Technology and Quality Control, Ministry of Agriculture and Livestock Development, Government of Nepal, Babarmahal, Kathmandu, Nepal

Accreditation Standard ISO/IEC 17025: 2017

Certificate Number TC-7010

Page 1 of 7

Validity 27.01.2019 to 26.01.2021

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
-----	----------------------------	-------------------------	---	--

BIOLOGICAL TESTING

I.	FOOD AND AGRICULTURAL PRODUCTS			
1.	Fruit and Vegetable Products			
a.	Juice, Jam, Jelly, Pickles and Candies	Total Bacterial Count	FAO Manual 1992, Chp 2 IS 5402:2012	≥ 1 cfu/ml or ≥ 10 cfu/g
		Yeast & Mould Count	FAO Manual 1992, Chp 19 IS 5403:1999 (RA 2009)	≥ 1 cfu/ml or ≥ 10 cfu/g
		Coliform Count	IS 5401 (Part 1): 2012	≥ 1 cfu/ml or ≥ 10 cfu/g
		Escherichia Coli	IS 5887 (Part 1): 1976 (RA 2005)	Qualitative (Presence/Absence)
		Enterobacteriaceae	ISO 21528-2:2004 (E)	≥ 1 cfu/ml or ≥ 10 cfu/g
2.	Bakery, Confectionary Products			
a.	Pulses and Cereal Products (Instant Noodles, Biscuits & Infant Foods)	Total Bacterial Count	IS 5402:2012	≥ 10 cfu/g
		Yeast & Mould Count	IS 5403:1999 (RA 2009)	≥ 10 cfu/g
		Coliform Count	IS 5401 (Part 1): 2012	≥ 10 cfu/g
		Escherichia Coli	IS 5887 (Part 1): 1976 (RA 2005)	Qualitative (Presence/Absence)
		Enterobacteriaceae	ISO 21528-2:2004 (E)	≥ 1 cfu/ml or ≥ 10 cfu/g
3.	Milk and Dairy Products			
a.	Fluid Milk, Skimmed Whole Milk Powder, Condensed Milk, Ice Creams & Yogurt Sweets	Total Bacterial Count	IS 5402:2012	≥ 1 cfu/ml or ≥ 10 cfu/g
		Yeast & Mould Count	IS 5403:1999 (RA 2009)	≥ 1 cfu/ml or ≥ 10 cfu/g
		Coliform Count	IS 5401 (Part 1): 2012	≥ 1 cfu/ml or ≥ 10 cfu/g

Anuja

Anuja Anand
Convenor

N. Venkateswaran

N. Venkateswaran
Program Manager



National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)



SCOPE OF ACCREDITATION

Laboratory National Food and Feed Reference Laboratory, Department of Food Technology and Quality Control, Ministry of Agriculture and Livestock Development, Government of Nepal, Babarmahal, Kathmandu, Nepal

Accreditation Standard ISO/IEC 17025: 2017

Certificate Number TC-7010

Page 2 of 7

Validity 27.01.2019 to 26.01.2021

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Escherichia Coli	IS 5887 (Part 1): 1976 (RA 2005)	Qualitative (Presence/Absence)
		Enterobacteriaceae	ISO 21528-2:2004 (E)	≥ 1 cfu/ml or ≥ 10 cfu/g
4.	Processed Meat and Meat Products	Total Bacterial Count	IS 5402:2012	≥ 1 cfu/ml or ≥ 10 cfu/g
		Yeast & Mould Count	IS 5403:1999 (RA 2009)	≥ 1 cfu/ml or ≥ 10 cfu/g
		Coliform Count	IS 5401 (Part 1): 2012	≥ 1 cfu/ml or ≥ 10 cfu/g
		Escherichia Coli	IS 5887 (Part 1): 1976 (RA 2005)	Qualitative (Presence/Absence)
		Enterobacteriaceae	ISO 21528-2:2004 (E)	≥ 1 cfu/ml or ≥ 10 cfu/g
II.	WATER			
1.	Processed Drinking Water	Total Bacterial Count	IS 5402:2012	≥ 1 cfu/ml
		Yeast & Mould Count	IS 5403:1999 (RA 2009)	≥ 1 cfu/ml
		Coliform Count	IS 15185:2002 (RA 2009) FAO Method (1992) Chapter 3 (MPN)	Qualitative (Presence/Absence) > 1.8 MPN/100 ml to < 1600 MPN/100 ml
		Escherichia Coli	IS 5887 (Part 1): 1976 (RA 2005) FAO Method (1992) Chapter 3 (MPN)	Qualitative/100ml (Presence/Absence)

Anuja Anand
Convenor

N. Venkateswaran
Program Manager



National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)



SCOPE OF ACCREDITATION

Laboratory National Food and Feed Reference Laboratory, Department of Food Technology and Quality Control, Ministry of Agriculture and Livestock Development, Government of Nepal, Babarmahal, Kathmandu, Nepal

Accreditation Standard ISO/IEC 17025: 2017

Certificate Number TC-7010

Page 3 of 7

Validity 27.01.2019 to 26.01.2021

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
-----	----------------------------	-------------------------	---	--

CHEMICAL TESTING

I. FOOD & AGRICULTURAL PRODUCTS				
1.	Fats and Oils	Free Fatty Acid	AOAC 20 th Edn; 2016; 940.28	0.1 % to 5 %
		Refractive Index	AOAC 20 th Edn; 2016; 921.08	1.300 to 1.5500
		Acid Value	AOAC 20 th Edn; 2016; 940.28	0.2 mg KOH/g to 10 mg KOH/g
		Peroxide Value	AOAC 20 th Edn; 2016; 965.33	1.0 Meq O ₂ /kg to 20 Meq O ₂ /kg
2.	Fruits and Vegetables Processed Products and Sweets	Total Soluble Solids (TSS)	IS 13815:2009	1 to 85° Brix
		Acidity	AOAC 20 th Edn; 2016; 942.15	0.1 % to 10.0 %
		Sulfur Dioxide (SO ₂)	AOAC 20 th Edn; 2016; 973.31	10 mg/kg to 200 mg/kg
		Benzoic Acid	ISO 22855 (Verification), NFFRL/SOP/5.4/36 based on Agilent Application note	1 mg/kg to 100 mg/kg
		Tartrazine	NFFRL/SOP/5.4/36 (Agilent Application note in house validation)	1 mg/kg 100 mg/kg
3.	Spices and Condiments	a. Ginger, Cardamom & Turmeric	Volatile oils	AOAC, 20 th Edn; 2016; 0.05 % to 20 %
			Crude Fibre	962.17, FSSAI (2016), 1 % to 20 %
			Total Ash	Method No. 8.8 IS 13854:1994 1 % to 20 %
		4.	Tea and Coffee	Total Ash
		Water extract	AOAC 20 th Edn; 2016; 5 % to 60 %	
		Crude Fibre	920.104, FSSAI (2016), 1 % to 20 %	

Anuja

Anuja Anand
Convenor

N. Venkateswaran

N. Venkateswaran
Program Manager



National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)



SCOPE OF ACCREDITATION

Laboratory National Food and Feed Reference Laboratory, Department of Food Technology and Quality Control, Ministry of Agriculture and Livestock Development, Government of Nepal, Babarmahal, Kathmandu, Nepal

Accreditation Standard ISO/IEC 17025: 2017

Certificate Number TC-7010

Page 4 of 7

Validity 27.01.2019 to 26.01.2021

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Lead	Method No. 8.8 APHA 22 nd Edition:2012; 3113 B	≤5.0 ug/L
5.	Cereals and Cereals Products	Caffeine Moisture	ISO 10727:2002 (E) AOAC 20 th Edn; 2016; 925.10	0.5 mg/kg to 80 mg/kg 1 % to 20 %
		Protein	AOAC 20 th Edn; 2016; 950.36, 920.87	1 % to 50 %
6.	Honey	Moisture	AOAC 20 th Edn; 2016; 44.4.04, 969.38	0.1 % to 40 %
		Acidity as formic acid	IS 4941:1994 BIS 1995	0.05 % to 2 %
		Hydroxymethyl furfural (HMF)	IHC 2009	0.2 mg/kg to 200 mg/kg
7.	Milk and Milk Products			
a.	Processed Milk, Skimmed, Whole Milk Powder, Infant Foods & Condensed Milk	Milk Fat	IS 1224 (Part 1): 1977 (RA 2008)	1 to 50 %
		Moisture	FSSAI, Manual of milk and milk products, Method 10.2, 2016	0.1 % to 15 %
		Protein	AOAC 20 th Edn; 2016; 991.20, 930.29	3.0 % to 40 %
		Ash Content	FSSAI Manual of milk and milk products, Method 10.7, 2016	3.0 % to 20 %
		Fat	FSSAI, Manual of milk and milk products, Method 10.3, 2016 IS 1224 (Part 2): 1977 (RA 2008)	0.5 % to 30 %
8.	Meat Products	Sodium nitrite	AOAC 20 th 2016; 973.31	0.08 mg/kg to 0.8 mg/kg

Anuja Anand
Convenor

N. Venkateswaran
Program Manager



National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)



SCOPE OF ACCREDITATION

Laboratory National Food and Feed Reference Laboratory, Department of Food Technology and Quality Control, Ministry of Agriculture and Livestock Development, Government of Nepal, Babarmahal, Kathmandu, Nepal

Accreditation Standard ISO/IEC 17025: 2017

Certificate Number TC-7010

Page 5 of 7

Validity 27.01.2019 to 26.01.2021

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection		
II.	RESIDUES IN FOOD PRODUCTS					
1.	Fruits and Vegetables	Organochlorine Pesticides				
		Aldrin, SS	AOAC 20 th Edn; 2016; 2007.01	30 µg/kg to 500 µg/kg		
		Alpha-BHC, SS				
		Alpha-Chlordane, SS				
		Beta, BHC, SS				
		Delta, BHC, SS				
		Dieldrin, SS				
		Endosulfan I (Alpha)				
		Endosulfan II (Beta), SS				
		Endosulfan Sulphate, SS				
		Endrin Aldehyde, SS				
		Endrin Ketone, SS				
		Endrin, SS				
		Gamma BHC (lindane), SS				
		Gamma Chlordane, SS				
		Heptachlor, 99 %, SS				
		Heptachlor epoxide Isomer B, SS				
		4,4'-DDD, SS				
		4,4'-DDE, SS				
		4,4'-DDT				
		Methoxy Chlor				
		Organophosphorus Pesticides				
		O,O,O-Triethylphosphorothioate			NFFRL/SOP/7.2/05, Validated Method	30 µg/kg to 500 µg/kg
		Thionazin				
	Sulfotep					
	Phorate					
	Dimethoate					
	Disulfoton					

Anuja

Anuja Anand
Convenor

N. Venkateswaran

N. Venkateswaran
Program Manager



National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)



SCOPE OF ACCREDITATION

Laboratory National Food and Feed Reference Laboratory, Department of Food Technology and Quality Control, Ministry of Agriculture and Livestock Development, Government of Nepal, Babarmahal, Kathmandu, Nepal

Accreditation Standard ISO/IEC 17025: 2017

Certificate Number TC-7010

Page 6 of 7

Validity 27.01.2019 to 26.01.2021

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Parathion		
		Methyl Parathion		
		Parathion		
		Famphur		
2.	Cereals and Cereals Products			
a.	Instant Noodles, Biscuits, Snacks	Mycotoxins		
		Total aflatoxin	ELISA (AOAC 20 th Edn; 2016; 993.16)	2 µg/kg to 20 µg/kg
		Aflatoxin B1	NFFRL/SOP/7.2/ CFP-04 based on Shimadzu Application note L428	2 µg/kg to 20 µg/kg
		Aflatoxin G2	NFFRL/SOP/7.2/ CFP-04 based on Shimadzu Application note L428	2 µg/kg to 4 µg/kg
		Trace Metal Elements		
		Zn	AOAC 20 th Edn; 2016; 999.11	4.0 mg/kg to 4000 mg/kg
		Ca	AOAC 20 th Edn; 2016; 999.11	10.0 mg/kg to 5000 mg/kg
		Mg	AOAC 20 th Edn; 2016; 999.11	4.0 mg/kg to 4000 mg/kg
		Fe	AOAC 20 th Edn; 2016; 999.11	4 mg/kg to 4000 mg/kg
III.	WATER			
1.	Processed Drinking Water	pH	AOAC 20 th Edn; 973.41: 2016	1 to 12
		Hardness	AOAC 20 th Edn; 973.52: 2016	5 mg/L to 5000 mg/L
		Alkalinity	IS 3025 (Part 23): 1986 (RA 2009)	10 mg/L to 2000 mg/L
		Chloride content	IS 3025 (Part 32): 1988	5 mg/L to 500 mg/L

Anuja

Anuja Anand
Convenor

N. Venkateswaran

N. Venkateswaran
Program Manager



National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)



SCOPE OF ACCREDITATION

Laboratory National Food and Feed Reference Laboratory, Department of Food Technology and Quality Control, Ministry of Agriculture and Livestock Development, Government of Nepal, Babarmahal, Kathmandu, Nepal

Accreditation Standard ISO/IEC 17025: 2017

Certificate Number TC-7010

Page 7 of 7

Validity 27.01.2019 to 26.01.2021

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
IV.	RESIDUES IN WATER			
1.	Processed Drinking Water	Trace Metal Elements		
		Lead	APHA 22 Edn; 2012;3113B	5.0 µg/L to 5000 µg/L
		Cadmium	APHA 22 Edn; 2012;3113B	0.5 µg/L to 500 µg/L
		Arsenic	APHA 22 Edn; 2012;3114C	5.0 µg/L to 5000 µg/L
		Calcium	AOAC 20th 2016, 974.27	0.5 mg/L to 500 mg/L
		Copper	AOAC 20th 2016, 974.27	0.5 mg/L to 500 mg/L
		Iron	AOAC 20th 2016, 974.27	0.2 mg/L to 200 mg/L
		Magnesium	AOAC 20th 2016, 974.27	0.2 mg/L to 200 mg/L
	Zinc	AOAC 20th 2016, 974.27	0.2 mg/L to 200 mg/L	

Anuja Anand
Convenor

N. Venkateswaran
Program Manager