

Laboratory **Regional Agmark Laboratory, 6th Cross Road, Willingdon Island, Kochi, Kerala**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-7220**

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Validity **26.04.2018 to 25.04.2020**

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

I.	<b>FOODS &amp; AGRICULTURAL PRODUCTS</b>			
1.	<b>Honey</b>	Specific gravity at 27°C	IS 4941:1994 RA 2008	1.35 to 1.45
		Moisture	IS 4941:1994 RA 2008	13.0% to 25.0%
		Total reducing sugars	IS 4941:1994 RA 2008	50.0% to 85.0%
		Sucrose	IS 4941:1994 RA 2008	0.5% to 50.0%
		F/G ratio	IS 4941:1994 RA 2008	0.5 to 1.5
		Ash	IS 4941:1994 RA 2008	0.05% to 1.0%
		Acidity as formic acid	IS 4941:1994 RA 2008	0.01% to 0.5%
		Fiehe's Test	IS 4941:1994 RA 2008	Qualitative (Positive/ Negative)
		H.M.F	IS 4941:1994 RA 2008	5 mg/kg to 300 mg/kg
		Optical Density	IS 4941:1994 RA 2008	0.005 to 0.7999
2.	<b>Spices &amp; Condiments</b>	Moisture	IS 1797:1985 RA 2009 Clause 9	3.0% to 25%
		Total Ash	IS 1797:1985 RA 2009 Clause 6	1.0% to 15%
		Acid Insoluble Ash	IS 1797:1985 RA 2009 Clause 8	0.01% to 5.0%
		Crude Fiber	IS 1797:1985 RA 2009 Clause 13	1.0% to 30%
		Non Volatile Ether Extract	IS 1797:1985 RA 2009 Clause 14	1.0% to 30%

**Ruchi Guntuku**  
Convenor

**N. Venkateswaran**  
Program Director

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		Volatile Oil	IS 1797:1985 RA 2009 Clause 15	0.05% to 25%
		Starch	IS 4706 ( Part II) 1978 RA 2005	30% to 90%
		Salt	IS 1909:1992 RA 2005 Clause 16	0.1% to 20%
		Curcumin Content	IS 10925:1984	0.1% to 8.0%
		Piperine Content	IS 15695:1984	0.1% to 8.0%
		Water Soluble Ash	IS 1797:1985 RA 2009	0.1% to 5.0%
		Alcohol soluble Extract	IS 1797:1985 RA 2009	1.0% to 15.0%
		Cold water soluble extract	IS 1797:1985 RA 2009	5.0% to 40.0%
		Calcium	IS 1908:2008 RA 2005	0.1% to 10.0%
		Acidity as tartaric acid	IS 13242:1991 RA 2012	1.0% to 30%
		Alcoholic extract	IS 7807:1975 RA Clause 6	1.0% to 30.0%
		Light berries	IS 1798:2010	0.5% to 20.0%
		Organic foreign matter	IS 4403:1010	0.1% to 3.0%
		Inorganic foreign matter	IS 4403:1010	0.1% to 20.0%
		Shrivelled, Damaged, Discoloured	IS 1797:2004 RA 2013 Cl. 4.1	0.1% to 15.0%
		Immature and shrivelled	IS 1797:2004 RA 2013 Cl. 4.1	0.1% to 5.0%
		Insect bored, damaged Broken, discoloured	IS 1797:2004 RA 2013 Cl. 4.1	0.1% to 20.0%
		Headless cloves	IS 4404:2010 Second revision	3.0% to 10.0%
		Pin heads	IS 1798:2010	2.0% to 6.0%
		Bulk density	IS 1798:2010	400% to 500%
		Empty and malformed	IS 9107:1984	0.1% to 6.0%

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		Split fruits	IS 9107:1984	0.1% to 30.0%
		Black and splits	IS 9107:1984	0.1% to 15.0%
3.	<b>Pulses Cereals and Food Grains</b>	Moisture	IS 1009:1979 RA 2010	2.00% to 20.00%
		Total Ash	IS 1009:1979 RA 2010	1.00% to 10.00%
		Acid Insoluble ash	IS 1009:1979 RA 2010	0.01% to 3.00%
		Alcoholic Acidity	IS 1009:1979 RA 2010	0.01% to 5.00%
		Crude Fibre	IS 1155-1968 RA 2010	0.50% to 5.00%
		Gluten	IS 1009:1979 RA 2010	2.00% to 15.00%
		Organic Foreign Matter	IS 4333 (Part 1) 1996 RA 2012	0.10% to 2.00%
		Inorganic Foreign matter	IS 4333 (Part 1) 1996 RA 2012	0.10% to 2.00%
		Other Edible grains	IS 4333 (Part 1) 1996 RA 2012	0.50% to 10.00%
		Damaged Grains	IS 4333 (Part 1) 1996 RA 2012	0.50% to 8.00%
		Immature and Shriveled	IS 4333 (Part 1) 1996 RA 2012	1.00% to 10.00%
		Weevilled Grains	IS 4333 (Part 1) 1996 RA 2012	0.50% to 3.00%
		Broken / fragments	IS 4333 (Part 1) 1996 RA 2012	0.50% to 10.00%
		Partially husked grain	IS 4333 (Part 1) 1996 RA 2012	0.50% to 5.00%
4.	<b>Rice</b>	Foreign matter	IS 4333 (Part 1) 1996 RA 2012	0.20% to 0.50%
		Broken grains	IS 4333 (Part 1) 1996 RA 2012	0.50% to 80.00%

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		Fragments	IS 4333 (Part 1) 1996 RA 2012	0.1% to 5.00%
		Other rices including red grains	IS 4333 (Part 1) 1996 RA 2012	1.00% to 10.00%
		Damaged or discolored grains	IS 4333 (Part 1) 1996 RA 2012	0.1% to 4.00%
		Weevilled grains	IS 4333 (Part 1) 1996 RA 2012	0.1% to 4.00%
		Chalky grains	IS 4333 (Part 1) 1996 RA 2012	0.1% to 5.00%
		Total Impurities	IS 4333 (Part 1) 1996 RA 2012	1.00% to 30.00%
		1000 kernal weight	IS 4333 (Part 1) 1996 RA 2012	5.00 g to 20.00 g
		Length of grain	IS 4333 (Part 1) 1996 RA 2012	3.00 mm to 8.00 mm
		Breadth of grain	IS 4333 (Part 1) 1996 RA 2012	1.00 mm to 3.00 mm
		Admixture	IS 4333 (Part 1) 1996 RA 2012	4.00% to 30.00%
		Damaged, Discoloured, Chalky, Green & Immature	IS 4333 (Part 1) 1996 RA 2012	0.20% to 15.00%
5.	<b>Vegetable oil, Ghee, Butter and Veg. Fatspread</b>	Moisture for Veg oil and ghee	IS 548 (Part I) 1964 RA 2010	0.008% to 4%
		Specific gravity at 30 <sup>o</sup> C	IS 548 (Part I) 1964 RA 2010	0.900 to 0.980
		Refractive Index at 40 <sup>o</sup> C	IS 548 (Part I) 1964 RA 2010	1.000 to 5.000
		Saponification Values	IS 548 (Part I) 1964 RA 2010	1.00 to 400.00
		Iodine Values	IS 548 (Part I) 1964 RA 2010	5.00 to 300.00
		Unsaponifiable Matters	IS 548 (Part I) 1964 RA 2010	0.01% to 10.00%

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		Acid value for Veg oil	IS 548 (Part I) 1964 RA 2010	0.04 to 30
		Bellier's Turbidity Test	IS 548 (Part I) 1964 RA 2010	1.00 to 60.00
		Natural essential oil (as allyl iso thiocyanate)	IS 548 (Part I) 1964 RA 2010	0.03 to 20.00
		Butyro Refractometer reading at 40°C for ghee	IS 3508-1966 RA 2003	30.00 to 50.00
		Reichert Meissl Value for ghee and butter	IS 3508-1966 RA 2003	1.00 to 40.00
		Polenskey Value for veg oil	IS 548 (Part I) 1964 RA 2010	4.00 to 30.00
		Polenskey Value for Ghee and butter	IS 3508-1966 RA 2003	0.20 to 5.00
		Moisutre for butter and Fatspread	IS 3507-1966 RA 2003	1.00% to 25.00%
		Acidity for butter and Fatspread	IS 3507-1966 RA 2003	0.01 to 5.00
		Fat% for butter and fatspread	IS 3507-1966 RA 2003	10.00% to 99.00%
		Curd	IS 3507-1966 RA 2003	0.3% to 5.00%
		Salt for butter and fatspread	IS 3507-1966 RA 2003	0.05% to 10.00%
		Free Fatty Acid for Ghee	IS 3507-1966 RA 2003	0.02 to 10.00
		Test for Argemone oil (By TLC)	IS 548 (Part II) 1976 RA 2010	Positive/ Negative (Qualitative)
		Halphen Test	IS 548 (Part II) 1976 RA 2010	Positive/ Negative (Qualitative)
		Test for Mineral oil (By TLC)	IS 548 (Part II) 1976 RA 2010	Positive/ Negative (Qualitative)
		Boudoin Test for Ghee	IS 3508-1966 RA 2003	Positive/ Negative (Qualitative)

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		Test for presence of hydrocyanic acid	IS 548 (Part II) 1976 RA 2010	Positive/ Negative (Qualitative)
		Added colour	IS 548 (Part II) 1976 RA 2010	Positive/ Negative (Qualitative)

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