

	ACCREDITATION DOCUMENT	F-06/02 Issue Date: 10/08/15 Rev. No: 07 LAB 128
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Accreditation No: LAB 128

Awarded to

Provincial Reference Fertilizer Testing Laboratory, Near Women Degree College, Raiwind, Lahore, Pakistan

The scope of accreditation is in accordance with the standard specifications outlined in the following page(s) of this document. The accredited scope shall be visible and legible in areas such as customer service, sample-receiving section etc and shall not mislead its users.

The accreditation was first time granted on **18-12-2017** by Pakistan National Accreditation Council.

The laboratory complies with the requirements of **ISO/IEC 17025:2005**.

The accreditation requires regular surveillance, and is valid until **17-12-2020**.

The decision of accreditation made by Pakistan National Accreditation Council implies that the organization has been found to fulfill the requirements for accreditation within the scope.

The organization however, itself is responsible for the results of performed measurements/tests.

PAKISTAN NATIONAL ACCREDITATION COUNCIL

29-01-2020

Date

Director General

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Testing Laboratory.

**Accreditation Scope of Provincial Reference Fertilizer Testing Laboratory,
Near Women Degree College, Raiwind,
Lahore, Pakistan**

Permanent laboratory premises

Materials/Products tested	Testing fields (e.g. environment testing or mechanical testing)	Types of test/Properties measured	Reference to standardized method (e.g. ISO 14577-1:2003)/Internal method reference
Nitrogen fertilizers	Chemical Testing	Ammoniacal Nitrogen	i. Tandon HLS (Ed.) 2009. Methods of Analysis of Soils, Plants, Waters, Fertilizer and Organic Manures Fertilizer Development and Consultation Organization, New Delhi. Pp 161-162 ii. Official Methods of Analysis of AOAC International, 20 th Edition, 2016,. Method No. 2.4.10 (AOAC Official Method 892.01), Fertilizers Chapter 2 Page 15.
Nitrogen fertilizers	Chemical Testing	Nitrate nitrogen	i. Tandon HLS (Ed.) 2009. Methods of Analysis of Soils, Plants, Waters, Fertilizer and Organic Manures Fertilizer Development and Consultation Organization, New Delhi. Pp 161-162 ii. Official Methods of Analysis of AOAC International, 20 th Edition, 2016,. Method No. 2.4.10 (AOAC Official Method 892.01), Fertilizers Chapter 2 Page 15...
Nitrogen fertilizer	Chemical Testing	Total Nitrogen	i. Tandon HLS (Ed.) 2009. Methods of Analysis of Soils, Plants, Waters, Fertilizer and Organic Manures Fertilizer Development and Consultation Organization, New Delhi. Pp 161-162 ii. Official Methods of Analysis of AOAC International, 20 th Edition, 2016,. Method No. 2.4.10 (AOAC Official Method 892.01), Fertilizers

20-02-2020

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Director

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			Chapter 2 Page 15
Nitrogen fertilizer	Chemical Testing	Ureic nitrogen	<p>i. Tandon HLS (Ed.) 2009. Methods of Analysis of Soils, Plants, Waters, Fertilizer and Organic Manures Fertilizer Development and Consultation Organization, New Delhi. Pp 161-162</p> <p>ii. Official Methods of Analysis of AOAC International, 20th Edition, 2016, Method No. 2.4.10 (AOAC Official Method 892.01), Fertilizers Chapter 2 Page 15</p>
Phosphate fertilizer	Chemical Testing	Citrate soluble phosphorus estimation	Pakistan standard for Single Super Phosphate (2 nd edition) PS: 67-1996. PSQCA. Karachi
Phosphate fertilizer	Chemical Testing	Total phosphorus	Pakistan standard for Single Super Phosphate (2 nd edition) PS: 67-1996. PSQCA. Karachi
Potassium Fertilizer	Chemical Testing	Water soluble potassium	Testing Methods for Fertilizers (2013). Incorporated Administrative Agency. Food and Agricultural Materials Inspection Center. Japan.
Zinc fertilizer	Chemical Testing	Water soluble zinc	Official Methods of Analysis of AOAC International, 20 th Edition, 2016, Method No. 2.6.01 (AOAC Official Method 965.09), Fertilizers Chapter 2, Subchapter 6, Page 29-30
Zinc fertilizer	Chemical Testing	Acid soluble zinc	Official Methods of Analysis of AOAC International, 20 th Edition, 2016, Method No. 2.6.01 (AOAC Official Method 965.09), Fertilizers Chapter 2, Subchapter 6, Page 29-30
Iron fertilizer	Chemical Testing	Water soluble iron	Official Methods of Analysis of AOAC International, 20 th Edition, 2016, Method No. 2.6.01 (AOAC Official Method 965.09), Fertilizers Chapter 2, Subchapter 6, Page 29-30

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Iron fertilizer	Chemical Testing	Acid soluble iron	Official Methods of Analysis of AOAC International, 20 th Edition, 2016, Method No. 2.6.01 (AOAC Official Method 965.09), Fertilizers Chapter 2, Subchapter 6, Page 29-30
Copper fertilizer	Chemical Testing	Water soluble copper	Official Methods of Analysis of AOAC International, 20 th Edition, 2016, Method No. 2.6.01 (AOAC Official Method 965.09), Fertilizers Chapter 2, Subchapter 6, Page 29-30
Copper fertilizer	Chemical Testing	Acid soluble copper	Official Methods of Analysis of AOAC International, 20 th Edition, 2016, Method No. 2.6.01 (AOAC Official Method 965.09), Fertilizers Chapter 2, Subchapter 6, Page 29-30
Manganese fertilizer	Chemical Testing	Water soluble manganese	Official Methods of Analysis of AOAC International, 20 th Edition, 2016, Method No. 2.6.01 (AOAC Official Method 965.09), Fertilizers Chapter 2, Subchapter 6, Page 29-30
Manganese fertilizer	Chemical Testing	Acid soluble manganese	Official Methods of Analysis of AOAC International, 20 th Edition, 2016, Method No. 2.6.01 (AOAC Official Method 965.09), Fertilizers Chapter 2, Subchapter 6, Page 29-30
Magnesium fertilizer	Chemical Testing	Water soluble magnesium	Official Methods of Analysis of AOAC International, 20 th Edition, 2016, Method No. 2.6.21 (AOAC Official Method 937.02), Fertilizers Chapter 2, Subchapter 6, Page 37
Magnesium fertilizer	Chemical Testing	Acid soluble magnesium	Official Methods of Analysis of AOAC International, 20 th Edition, 2016, Method No. 2.6.01 (AOAC Official Method 965.09), Fertilizers Chapter 2, Subchapter 6, Page 29-30
Boron fertilizer	Chemical Testing	Water soluble boron	Official Methods of Analysis of AOAC International, 20 th Edition, 2016, Method No. 2.6.04 (AOAC Official Method 982.01), Fertilizers Chapter 2, Subchapter 6, Page 31

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Chelated Zinc	Chemical Testing	Chelated zinc	Vogel`s Text Book Of Quantitative Chemical Analysis, 6 th Edition, J Mendham, R C Denney, J D Barnes, M J K Thomas Official Methods of Analysis of AOAC International, 20 th Edition, 2016, Method No. 2.6.01 (AOAC Official Method 965.09), Fertilizers Chapter 2, Subchapter 6, Page 29-30
Chelated iron	Chemical Testing	Chelated iron	Official Methods of Analysis of AOAC International, 20 th Edition, 2016, Method No. 2.6.16 (AOAC Official Method 983.03), Fertilizers Chapter 2, Subchapter 6, Page 35
Organic Matter solid	Chemical Testing	Organic matter	Official Methods of Analysis of AOAC International, 20 th Edition, 2016, Method No. 2.7.08 (AOAC Official Method 967.05), Fertilizers Chapter 2, Subchapter 7 Page 54
Amino acid	Chemical Testing	Total amino-acid (protein base)	i. Official Methods of Analysis of AOAC International, 20 th Edition, 2016,. Method No. 2.4.10 (AOAC Official Method 892.01), Fertilizers Chapter 2 Page 15 ii. FAO nutritional studies no 24(1970). iii. Pellet, L P and Young (1980). iv. Theymoli Balasubramanian, Sadasivam (1987). v. www.eplantsceinece.com
Humic acid	Chemical Testing	Humic acid	ISO 19822:2018 https://www.iso.org/standard/66271.html

20-02-2020

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Director