

	<b>ACCREDITATION DOCUMENT</b>	<b>F-06/02 Issue Date: 18/08/2020 Rev. No: 09 LAB 128</b>
---	-----------------------------------	---

## **Accreditation No: LAB 128**

**Awarded to**

### **Provincial Reference Fertilizer Testing Laboratory, 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 17025:2017**.

The accreditation requires regular surveillance, and is valid until **16-12-2026**.

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**

14-11-2024  
Date

SD  
Director General

	<b>ACCREDITATION DOCUMENT</b>	<b>F-06/02</b> <b>Issue Date: 18/08/2020</b> <b>Rev. No: 09</b> <b>LAB 128</b>
---	-----------------------------------	---

### Testing Laboratory.

Accreditation Scope of Provincial Reference Fertilizer testing Laboratory,  
Raiwind, Lahore, Pakistan

Permanent laboratory premises

Materials/Products tested	Testing field (e.g. environmental testing or mechanical testing)	Types of test/ Properties measured	Reference to standardized method (e.g. ISO 14577-1:2003)/ Internal method reference
1. Nitrogen fertilizers	Chemical testing	Ammonical Nitrogen (Single/ Mixture/ Solid/ Liquid)	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 <sup>th</sup> Edition, 2016, Method No. 2.4.10 (AOAC Official Method 892.01), Fertilizers Chapter 2 Page 15. iii. SFRI Guide, 2021 iv. SOPs Macronutrients (PRFTL/SOP-MACRO/L3/ 002)
2. Nitrogen fertilizer	Chemical testing	Nitrate Nitrogen (Single/ Mixture/ Solid/ Liquid)	-do-
3. Nitrogen fertilizer	Chemical testing	Ureic Nitrogen (Single/ Mixture/ Solid/ Liquid)	-do-
4. Nitrogen fertilizer	Chemical testing	Total nitrogen (Single/ Mixture/ Solid/ Liquid)	-do-
5. Phosphate fertilizer	Chemical testing	Citrate soluble phosphorus estimation (Single/ Mixture/ Solid/ Liquid)	i. Pakistan standard for Single Super Phosphate (2 <sup>nd</sup> edition) PS: 67-1996. PSQCA. Karachi ii. SFRI Guide, 2021 iii. SOPs Macronutrients (PRFTL/SOP-MACRO/L3/ 002)
6. Phosphate fertilizer	Chemical testing	Total phosphorus (Single/ Mixture/ Solid/ Liquid)	-do-
7. Potassium Fertilizer	Chemical testing	Water soluble potassium (Single/ Mixture/ Solid/ Liquid)	i. Pakistan Standard specification for SOP grade PS 1501-2011 @ ICS:65.080. PSQCA, Karachi ii. Testing Methods for Fertilizers (2016). Incorporated Administrative Agency. Food and Agricultural Materials Inspection Center. Japan. Section 4.3.3.a iii. SFRI Guide, 2021 iv. SOPs Macronutrients (PRFTL/SOP-MACRO/L3/ 002)

14-11-2024

Date

Sd

Director



## ACCREDITATION DOCUMENT

**F-06/02**  
**Issue Date: 18/08/2020**  
**Rev. No: 09**  
**LAB 128**

8. Zinc fertilizer	Chemical testing	Water soluble zinc by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid/ Liquid)	i. Official Methods of Analysis of AOAC International, 20 <sup>th</sup> Edition, 2016, Volume 1. Method No. 2.6.01 (AOAC Official Method 965.09), Fertilizers Chapter 2, Subchapter 6, Page 29-30 ii. SFRI Guide, 2021 iii. SOPs Macronutrients (PRFTL/SOP-MICRO/L3/ 003)
9. Iron fertilizer	Chemical testing	Water soluble Iron by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid/ Liquid)	-do-
10. Copper fertilizer	Chemical testing	Water soluble Copper by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid/ Liquid)	-do-
11. Manganese fertilizer	Chemical testing	Water soluble Manganese by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid/ Liquid)	-do-
12. Calcium fertilizer	Chemical testing	Water soluble Calcium by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid/ Liquid)	-do-
13. Magnesium fertilizer	Chemical testing	Water soluble Magnesium by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid/ Liquid)	-do-
14. Zinc fertilizer	Chemical testing	Acid soluble zinc by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid/ Liquid)	i. Official Methods of Analysis of AOAC International, 20 <sup>th</sup> Edition, 2016, Volume 1. Method No. 2.6.01-C (AOAC Official Method 965.09), Fertilizers Chapter 2, Subchapter 6, Page 29-30 ii. SFRI Guide, 2021 iii. SOPs Macronutrients (PRFTL/SOP-MICRO/L3/ 003)
15. Iron fertilizer	Chemical testing	Acid soluble Iron by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid/ Liquid)	-do-
16. Copper fertilizer	Chemical testing	Acid soluble Copper by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid/ Liquid)	-do-

14-11-2024

Date

Sd

Director



## ACCREDITATION DOCUMENT

**F-06/02**  
**Issue Date: 18/08/2020**  
**Rev. No: 09**  
**LAB 128**

17. Manganese fertilizer	Chemical testing	Acid soluble Manganese by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid/ Liquid)	-do-
18. Calcium fertilizer	Chemical testing	Acid soluble Calcium by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid/ Liquid)	-do-
19. Magnesium Fertilizer	Chemical testing	Acid soluble Magnesium by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid/ Liquid)	-do-
20. Boron Fertilizer	Chemical testing	Water soluble boron (Single/ Mixture/ Solid/ Liquid)	i. Official Methods of Analysis of AOAC International, 20 <sup>th</sup> Edition, 2016, Method No. 2.6.04 (AOAC Official Method 982.01), Fertilizers Chapter 2, Subchapter 6, Page 31-32. ii. Ryan, J., George Estefan and Abdul Rashid. 2001. Soil and Plant analysis Laboratory manual. 2 <sup>nd</sup> Ed. Jointly published by ICARDA and NARC, Available from ICARDA, Aleppo, Syria. iii. SFRI Guide, 2021 iv. SOPs Macronutrients (PRFTL/SOP-MICRO/L3/ 003)
21. Chelated Zinc	Chemical testing	Chelated zinc by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid/ Liquid)	i. Vogel's Text Book Of Quantitative Chemical Analysis, 16 <sup>th</sup> Edition, J Mendham, R C Denney, J D Barnes, M J K Thomas ii. Official method of analysis of AOAC International, 20 <sup>th</sup> Edition, 2016, Method No 2.6.01 (AOAC Official method 965.09) Fertilizer Chapter 2, Subchapter 6, Page 29-30 iii. SFRI Guide, 2021 iv. SOPs Macronutrients (PRFTL/SOP-MICRO/L3/ 003)
22. Chelated Iron	Chemical testing	Chelated Iron by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid/ Liquid)	i. Official method of analysis of AOAC International, 20 <sup>th</sup> Edition, 2016, Method No 2.6.16 (AOAC Official method 983.03) Fertilizer Chapter 2, Page 35. ii. Maria Villen, Juan Jose Lucena, M. Carmen Cartagena, Raquel Bravo, Josemaria Gracia-Mina and M. Ignacia Martin de la Hinojosa. 2007. Comparison of two analytical methods for the evaluation of complex metal in fertilizer and the complexing capacity of complexing agents. J. Agric. Food Chem. 2007. 55, 14, 5746-5753. iii. SFRI Guide, 2021 iv. SOPs Macronutrients (PRFTL/SOP-MICRO/L3/ 003)
23. Chelated Copper	Chemical testing	Chelated copper by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid/ Liquid)	-do-

14-11-2024

Date

Sd

Director



## ACCREDITATION DOCUMENT

**F-06/02**  
**Issue Date: 18/08/2020**  
**Rev. No: 09**  
**LAB 128**

24. Chelated Manganese	Chemical testing	Chelated Manganese by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid/ Liquid)	-do-
25. Charred/ ashed fraction/ Bio-active estimation of Zn, Fe, Cu and Mn	Chemical testing	Charred/ ashed fraction/ Bio-active estimation of Zn, Fe, Cu and Mn from Organic Multi-micro Fertilizers by Atomic Absorption Spectrophotometer (Single/ Mixture/ Solid / Liquid)	i. Official Method of Analysis of AOAC International, 20 <sup>th</sup> Edition, 2016 Method No. 2.6.01-C (b) (AOAC Official Method 965.09), Fertilizer Chapter 2, Subchapter 6, Page 29-30/ ii. Pakistan Standard Specification for Bioactive nutrient fortified fertilizers (BNFF) PS No. 5336-2021 (2 <sup>nd</sup> Rev) ICS: 65.080. Chemical Division SDC/PSQCA Page No. 1-13. iii. SFRI Guide, 2021 iv. SOPs Macronutrients (PRFTL/SOP-MICRO/ L3/003)
26. Organic Matter	Chemical testing	Organic matter/ Organic Carbon (Single/ Mixture/ Solid/ Liquid)	i. Official Methods of Analysis of AOAC International, 20 <sup>th</sup> Edition, 2016. Method No. 2.7.08 (AOAC Official Method 967.05), Fertilizers Chapter 2, Subchapter 6, Page 54. ii. 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 iii. SFRI Guide, 2021 iv. SOPs Macronutrients (PRFTL/SOP-MICRO/L3/ 003)
27. Organic Matter	Chemical testing	Cation exchange capacity (Single/ Mixture/ Solid/ Liquid)	i. Official Methods of Analysis of AOAC International, 20 <sup>th</sup> Edition, 2016, Method No. 2.7.13 (AOAC Official Method 973.09), Fertilizers Chapter 2, Subchapter 7 Page 56 ii. SFRI Guide, 2021 iii. SOPs Macronutrients (PRFTL/SOP-MICRO/L3/ 003)
28. Organic Matter	Chemical testing	C:N Ratio (Single/ Mixture/ Solid/ Liquid)	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 <sup>th</sup> Edition, 2016, Method No. 2.4.10 (AOAC Official Method 892.01), Fertilizers Chapter 2, Page 15 iii. SFRI Guide, 2021 iv. SOPs Macronutrients (PRFTL/SOP-MACRO/ L3/002)
29. Humic acid	Chemical testing	Humic acid (Solid/ Liquid)	i. Gravimetric method of humic acid analysis ISO 19822:2018 <a href="http://www.iso.org/standard/66271.html">http://www.iso.org/standard/66271.html</a> ii. FJ Stevenson, J. Environ. Quality, 1972,1,333. iii. AK Fatafteh, PhD thesis, Northern university, Boston, 1997. iv. TL Stenn and AR Kingman, A review of Humus and Humic acid Research. v. www.humates.com/methodology.html. vi. SFRI Guide, 2021 vii. SOPs Macronutrients (PRFTL/SOP-MICRO/L3 /002)
30. Amino acid	Chemical testing	Total amino-acid (protein base) (Solid/ Liquid)	i. Official Methods of Analysis of AOAC International, 20 <sup>th</sup> Edition, 2016, Method No. 2.4.10 (AOAC Official Method 892.01), Fertilizers Chapter 2, Page 15

14-11-2024

Date

Sd

Director



## ACCREDITATION DOCUMENT

**F-06/02**  
**Issue Date: 18/08/2020**  
**Rev. No: 09**  
**LAB 128**

			<p>ii. FAO nutritional studies no 24 (1970). Amino acid contents of food and biological data on proteins. FAO Rome.</p> <p>iii. Pellet, L P and Young (1980). Nutritional evaluation of protein foods UN Univ. publication.</p> <p>iv. Theymoli Balasubramanian, Sadasivam (1987).</p> <p>v. <a href="http://www.eplantscience.com">www.eplantscience.com</a></p> <p>vi. SOPs Macronutrients (PRFTL/SOP-MACRO/ L3/002)</p>
31. Sulfur	Chemical testing	Sulfur (Single/ Mixture/ Solid/ Liquid)	<p>i. Diagnosis and improvement of Saline and alkali soils, USDA Handbook 60. Pp 146</p> <p>ii. Official Methods of Analysis of AOAC International, 20<sup>th</sup> Edition, 2016, Method No. 2.6.09 (AOAC Official Method 928.01), Page 33.</p> <p>iii. Pakistan Standard specification for SOP grade, 2<sup>nd</sup> Rev. PS 1501-2011@ ICS:65.080. PSQCA, Karachi</p> <p>iv. SFRI Guide, 2021</p> <p>v. SOPs Macronutrients (PRFTL/SOP-MICRO/L3 /003)</p>
32. Chloride	Chemical testing	Total Chloride (Single/ Mixture/ Solid/ Liquid)	<p>i. Diagnosis and improvement of Saline and alkali soils, USDA Handbook 60. Pp 146</p> <p>ii. Official Methods of Analysis of AOAC International, 20<sup>th</sup> Edition, 2016, Method No. 2.6.09 (AOAC Official Method 928.01), Page 33.</p> <p>iii. Pakistan Standard specification for SOP grade. 2<sup>nd</sup> Rev. PS 1501-2011@ ICS: 65.080. PSQCA, Karachi</p> <p>iv. SFRI Guide, 2021.</p> <p>v. SOPs Macronutrients (PRFTL/SOP-MICRO/L3 /003)</p>
33. Paclobutrazole	Chemical testing	Paclobutrazole by HPLC	<p>i. Sigma Aldrich Laborchemikalvien GmbH Germany, Quality Management SA-LC. HPLC method for Paclobutrazole</p> <p>ii. SFRI Guide, 2021</p> <p>iii. SOPs Macronutrients (PRFTL/SOP-PGPR/L3/ 004)</p>
34. Naphthyl acetic acid	Chemical testing	Naphthyl acetic acid by HPLC	<p>i. Sigma Aldrich Laborchemikalvien GmbH Germany, Quality Management SA-LC., HPLC method for Naphthyl acetic acid</p> <p>ii. SFRI Guide, 2021</p> <p>iii. SOPs Macronutrients (PRFTL/SOP-PGPR/L3/ 004)</p>
35. Mepiquat Chloride	Chemical testing	Mepiquate Chloride by HPLC	<p>i. Bayer Crop Sciences, HPLC method for Mepiquat Chloride</p> <p>ii. Karasali H and Ioannou S. 2009. HPLC determination of Mepiquate Chloride in commercial pesticides formulation. Bull. of Env'tl Contam. and Toxicology. 83, 636.</p> <p>iii. SFRI Guide, 2021</p> <p>iv. SOPs Macronutrients (PRFTL/SOP-PGPR/L3/004)</p>
36. Gibberallic acid	Chemical testing	Gibberallic acid by HPLC	<p>i. K Bhalla, R Agarwal. Qualitative determination of Gibberalins producing strains. Env'tal monitoring and assessment. Aug, 2009.</p> <p>ii. In house validated, HPLC method for Gibberallic acid</p> <p>iii. SFRI Guide, 2021</p> <p>iv. SOPs Macronutrients (PRFTL/SOP-PGPR/L3/ 004)</p>
37. Cyclanilicid	Chemical testing	Cyclanilicid by HPLC	<p>i. Bayer Crop Sciences, HPLC method for Cyclanilicid</p> <p>ii. Sigma Aldrich Germany, HPLC method for Cyclanilicid</p> <p>iii. In house validated, HPLC method for Cyclanilicid</p> <p>iv. SOPs Macronutrients (PRFTL/SOP-PGPR/L3/ 004)</p>

14-11-2024

Date

Sd

Director



## ACCREDITATION DOCUMENT

**F-06/02**  
**Issue Date: 18/08/2020**  
**Rev. No: 09**  
**LAB 128**

38. Biurette	Chemical Testing	Biurette contents	<p>i. Pakistan Standard Specification for Liquid Nutrient Supplement PS No. 5469-2020. Chemical Division SDC/PSQCA Page No. 1-38.</p> <p>ii. SOPs Macronutrients (PRFTL/SOP-NLab/L3/004)</p>
39. pH in Fertilizer	Chemical testing	pH in Fertilizer (Single/ Mixed/ Solid/ Liquid)	<p>i. George Estefan, Rolf Sommer, and John Ryan 2013. Methods of Soil, Plant and Water Analysis: A Manual For the West Asia and North Africa region. (ICARDA)</p> <p>ii. Official Method of Analysis of AOAC International, 20<sup>th</sup> Edition, 2016 AOAC Official Method 2.7.05 Method No. 973.04 chapter 2, page 53</p> <p>iii. i. Pakistan Standard Specification for Multi Nutrient Fertilizers PS No. 933-1973. Chemical Division SDC/PSQCA.</p>
40. Particle Size of Fertilizer	Physical testing	Particle size of fertilizers (Single/ Mixed/ Solid/ Liquid)	<p>i. Pakistan Standard Specification for BOP Fertilizer (2<sup>nd</sup> Revision). PS No. 5295/2017(2<sup>nd</sup> Revision) Chemical Division SDC/PSQCA Page No. 1-12.</p> <p>ii. Pakistan Standard Specification for SSP (2<sup>nd</sup> Revision) PS No. 67-1996 (2<sup>nd</sup> Revision) ICS: 65.080. Chemical Division SDC/PSQCA Page No. 1-16.</p> <p>iii. Pakistan Standard Specification for Potassium Sulphate, Fertilizer Grade (2<sup>nd</sup> Revision) PS No. 1501-2022 (R) (3<sup>rd</sup> Revision) ICS: 65.080. Chemical Division SDC/PSQCA Page No. 1-11.</p> <p>iv. Pakistan Standard Specification for Monoammonium Phosphate (1<sup>st</sup> Revision) PS No. 4991-2017 (1<sup>st</sup> Revision). Chemical Division SDC/PSQCA Page No. 1-16.</p> <p>v. Pakistan Standard Specification for Triple Super Phosphate (2<sup>nd</sup> Revision) PS No. 216-2009 (2<sup>nd</sup> Revision) ICS: 65.080. Chemical Division SDC/PSQCA Page No. 1-16.</p> <p>vi. Official Method of Analysis of AOAC International, 20<sup>th</sup> Edition, 2016 AOAC Official Method 2.7.04 Method No. 973.04, Chapter 2, page 53</p> <p>vii. Pakistan Standard Specification for Liquid Nutrient Supplement PS No. 5459-2020. Chemical Division SDC/PSQCA Page No. 1-38.</p>
41. Shape of Fertilizer	Physical testing	Physical Condition of fertilizers (Single/ Mixed/ Solid/ Liquid)	<p>i. Pakistan Standard Specification for BOP Fertilizer (2<sup>nd</sup> Revision). PS No. 5295/2017(2<sup>nd</sup> Revision) Chemical Division SDC/PSQCA Page No. 1-12.</p> <p>ii. Pakistan Standard Specification for Potassium Sulphate, Fertilizer Grade (2<sup>nd</sup> Revision) PS No. 1501-2022 (R) (3<sup>rd</sup> Revision) ICS: 65.080. Chemical Division SDC/PSQCA Page No. 1-11.</p> <p>iii. Pakistan Standard Specification for Monoammonium Phosphate (1<sup>st</sup> Revision) PS No. 4991-2017 (1<sup>st</sup> Revision). Chemical Division SDC/PSQCA Page No. 1-16.</p> <p>iv. Pakistan Standard Specification for Triple Super Phosphate (2<sup>nd</sup> Revision) PS No. 216-2009 (2<sup>nd</sup> Revision) ICS: 65.080. Chemical Division SDC/PSQCA Page No. 1-16.</p> <p>v. Pakistan Standard Specification for Potassium Nitrate PS No. 5341-2016, ICS: 65.080. Chemical Division</p>

14-11-2024

Date

Sd

Director



## ACCREDITATION DOCUMENT

**F-06/02**  
**Issue Date: 18/08/2020**  
**Rev. No: 09**  
**LAB 128**

			SDC/PSQCA Page No. 1-7. vi. Pakistan Standard Specification for Potassium Chloride (Murate of Potash) PS No. 1517-1981. Chemical Division SDC/PSQCA Page No. 1-11. vii. Pakistan Standard Specification for Zinc Sulphate Monohydrate (ZnSO <sub>4</sub> .2H <sub>2</sub> O) Fertilizer Grade PS No. 4750-2001. Chemical Division SDC/PSQCA Page No. 1-5.
42. Moisten Fertilizer	Chemical testing	Moisture in fertilizer (Single/Mixed/ Solid/Liquid)	i. Pakistan Standard Specification for BOP Fertilizer (2 <sup>nd</sup> Revision). PS No. 5295/2017(2 <sup>nd</sup> Revision) Chemical Division SDC/PSQCA Page No. 1-12. ii. Pakistan Standard Specification for SSP (2 <sup>nd</sup> Revision) PS No. 67-1996 (2 <sup>nd</sup> Revision) ICS: 65.080. Chemical Division SDC/PSQCA Page No. 1-16. iii. Pakistan Standard Specification for Ammonium Sulphate, Fertilizer Grade (2 <sup>nd</sup> Revision) PS No. 36-2022 (3 <sup>rd</sup> Revision) ICS: 65.080. Chemical Division SDC/PSQCA Page No. 1-11. iv. Pakistan Standard Specification for Potassium Sulphate, Fertilizer Grade (3 <sup>rd</sup> Revision) PS No. 1501-2022 (R) (2 <sup>nd</sup> Revision) ICS: 65.080. Chemical Division SDC/PSQCA Page No. 1-11. v. Pakistan Standard Specification for Monoammonium Phosphate (1 <sup>st</sup> Revision) PS No. 4991-2017 (1 <sup>st</sup> Revision). Chemical Division SDC/PSQCA Page No. 1-16. vi. Pakistan Standard Specification for Triple Super Phosphate (2 <sup>nd</sup> Revision) PS No. 216-2009 (2 <sup>nd</sup> Revision) ICS: 65.080. Chemical Division SDC/PSQCA Page No. 1-16. vii. Pakistan Standard Specification for Potassium Nitrate PS No. 5341-2016, ICS: 65.080. Chemical Division SDC/PSQCA Page No. 1-7. viii. Pakistan Standard Specification for Potassium Chloride (Murate of Potash) PS No. 1517-1981. Chemical Division SDC/PSQCA Page No. 1-11. ix. Official Method of Analysis of AOAC International, 20 <sup>th</sup> Edition, 2016 AOAC Official Method 2.7.03 Method No. 967.03, Chapter 2, page 53
43. Sodium Determination from fertilizers	Chemical testing	Sodium from Chloride/ Sulphate containing fertilizers (Liquid/Solid/ Mixed)	i. Official Methods of Analysis of AOAC International, 20th Edition, 2016, Method No. 2.6.01-C(a). (AOAC Official Method 965.09), Fertilizers Chapter 2, Sub Chapter-6. Page 29-30. ii. Pakistan Standard Specification for Liquid Nutrient Supplement PS No. 5459-2020. Chemical Division SDC/PSQCA Page No. 1-38.
44. Calcium and Magnesium fertilizers	Chemical testing	Water Soluble calcium and Magnesium from gypsum/ Calcium/ Magnesium containing fertilizers (single/ mixed, liquid/solid)	i. USDA Handbook 60, US Government Printing Office, Washington, D C. Technique: Titration Testing Methods for Fertilizers (2016). Incorporated Administrative Agency. Food and Agricultural Materials Inspection Center. Japan. 4.5.3.a

14-11-2024

Date

Sd

Director



	<b>ACCREDITATION DOCUMENT</b>	<b>F-06/02</b> <b>Issue Date: 18/08/2020</b> <b>Rev. No: 09</b> <b>LAB 128</b>
---	-----------------------------------	---

45. Liquid Nutrient Supplement	Chemical testing	i) Category single nutrient (%) ii) category multi nutrient (%) iii) category chelated nutrients (%) (Single/Mixed/Solid/Liquid)	i. Pakistan Standard Specification for Liquid Nutrient Supplement PS No. 5469-2020. Chemical Division SDC/PSQCA Page No. 1-38.
--------------------------------	------------------	--	--

14-11-2024

Date

Sd

Director