

	ACCREDITATION DOCUMENT	F-06/02 Issue Date: 10/08/15 Rev. No: 07 LAB 141
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Accreditation No: LAB 141

Awarded to

**Leader AG, Quality Assurance Laboratory,
6-D, Industrial Estate, Phase-I, Multan, 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 **29-06-2018** 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 **28-06-2021**.

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

05-03-2020

Date

Sd

Director General



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Testing Laboratory.

**Accreditation Scope of Leader AG, Quality Assurance Laboratory,
 6-D, Industrial Estate, Phase-I, Multan, 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
Fipronil	Environmental Testing	i) Concentration/ Quantitative analysis	Chromatographic Technique HPLC CIPAC Vol. J Method No.581, Page No.60-65
		ii) Qualitative analysis (Density)	CIPAC Vol. F Method No.3.3.1 Hydrometer Method Page No 18-19
Acetamiprid	Environmental Testing	i) Concentration/ Quantitative analysis	Chromatographic Technique HPLC CIPAC Vol. L Method No.649, Page No.04-15
		ii) Qualitative analysis (Density)	CIPAC Vol. F, MT 3 Page No.11 Direct Through Density Meter
Chlorpyrifos	Environmental Testing	i) Concentration/ Quantitative analysis	Chromatographic Technique HPLC CIPAC Vol. 1C Method No. 221.b Page No. 2028-2031
		ii) Qualitative analysis (Emulsion Stability Test)	Measuring cylinder CIPAC Vol. F, MT 36 Page No.108-110
		iii) Qualitative analysis (Density)	CIPAC Vol. F, MT 3 Page No.11 Direct Through Density Meter
Iprodione	Environmental Testing	i) Concentration/ Quantitative analysis	Chromatographic Technique HPLC CIPAC Vol. G Method No.278, Page No 98-104
		ii) Qualitative analysis (Density)	CIPAC Vol. F Method No.3.3.1 Hydrometer Method Page No 18-19

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Sulphur	Environmental Testing	Concentration/ Quantitative analysis	(Gravimetric Method) CIPAC Vol.E Method No.18 Page No. 202-210
Pyriproxyfen	Environmental Testing	i) Concentration/ Quantitative analysis	Chromatographic Technique HPLC CIPAC Vol.M Method No.715, Page No.180-188
		ii) Qualitative analysis (Emulsion Stability Test)	Measuring cylinder CIPAC Vol. F,MT 36 Page No.108-110
		iii) Qualitative analysis (Density)	CIPAC Vol. F, MT 3 Page No.11 Direct Through Density Meter
Clothianidin	Environmental Testing	i) Concentration/ Quantitative analysis	Chromatographic Technique HPLC CIPAC Vol. N Method No.738, Page No.14-24
		ii) Qualitative analysis (Density)	CIPAC Vol. F Method No.3.3.1 Hydrometer Method Page No 18-19
Emamectin benzoate	Environmental Testing	i) Concentration/ Quantitative analysis	Chromatographic Technique HPLC Lab validated method Method No. LAG/QAL/M/01 based on Pak China
		ii) Qualitative analysis (Emulsion Stability Test)	Measuring cylinder CIPAC Vol. F,MT 36 Page No.108-110
		iii) Qualitative analysis (Density)	CIPAC Vol. F, MT 3 Page No.11 Direct Through Density Meter
Imidacloprid	Environmental Testing	Concentration/ Quantitative analysis	Chromatographic Technique HPLC CIPAC Vol. H Method No.581, Page No.185-193

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		ii) Qualitative analysis (Density)	CIPAC Vol. FMT3PagNo.11 Direct Through Density Meter
Chlorfenapyr	Environmental Testing	i) Concentration/ Quantitative analysis	Chromatographic Technique HPLC CIPAC Vol.O Method No.570 Page No. 22-30
		ii) Qualitative analysis (Density)	CIPAC Vol. F Method No.3.3.1 Hydrometer Method Page No 18-19
Pendimethalin	Environmental Testing	i) Concentration/ Quantitative analysis	Chromatographic Technique HPLC CIPAC Vol.M Method No.357, Page No.148-154
		ii) Qualitative analysis (Emulsion Stability Test)	Measuring cylinder CIPAC Vol. F,MT 36 Page No.108-110
		iii) Qualitative analysis (Density)	CIPAC Vol. F, MT 3 Page No.11 Direct Through Density Meter
Lufenuron	Environmental Testing	i) Concentration/ Quantitative analysis	Chromatographic Technique HPLC CIPAC Vol.M Method No.704, Page No.106-114
		ii) Qualitative analysis (Emulsion Stability Test)	Measuring cylinder CIPAC Vol. F,MT 36 Page No.108-110
		iii) Qualitative analysis (Density)	CIPAC Vol. F, MT 3 Page No.11 Direct Through Density Meter
Chlorsulfuron	Environmental Testing	Concentration/ Quantitative analysis	Chromatographic Technique HPLC CIPAC Vol. H Method No.391, Page No.89-95
Metsulfuron	Environmental Testing	Concentration/ Quantitative analysis	Chromatographic Technique HPLC CIPAC Vol. H Method No. 441, Page No.204-211
Bifenthrin	Environmental Testing	i) Concentration/ Quantitative analysis	Chromatographic Technique/HPLC Laboratory validated method Method No. LAG/QAL/M/02 (Based on NLA South Africa)
		ii) Qualitative analysis (Emulsion Stability Test)	Measuring cylinder CIPAC Vol. F,MT 36 Page No.108-110

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		iii) Qualitative analysis (Density)	CIPAC Vol. F, MT 3 Page No.11 Direct Through Density Meter
Cymoxynil	Environmental Testing	Concentration/ Quantitative analysis	Chromatographic Technique HPLC CIPAC Vol. J Method No.419, Page No.22-28
Clodinafop propargyl	Environmental Testing	Concentration/ Quantitative analysis	Chromatographic Technique HPLC CIPAC Vol.M Method No.240, Page No.26-39
Direct Available phosphorus	Environmental Testing	Concentration/ Quantitative analysis	PSQCA. Karachi (2nd edition) PS: 67-1996.
Soluble Potassium	Environmental Testing	Concentration/ Quantitative analysis	Agriculture Hand book No.60 U.S Dept of Agriculture Chapter No.06 Method No.11a Page No.97
Total Nitrogen	Environmental Testing	Concentration/ Quantitative analysis	i. Tandon HLS (Ed.) 2009. Methods of Analysis of Soils, Plants, Waters, Fertilizer and Organic Manures Fertilizer Development and Consultation Organization, New Delhi Page No. 161-162 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.
Ammonical Nitrogen	Environmental Testing	Concentration/ Quantitative analysis	i.Tandon HLS (Ed.) 2009. Methods of Analysis of Soils, Plants, Waters, Fertilizer and Organic Manures Fertilizer Development and Consultation Organization, New Delhi. Page No. 161-162 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.

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<p>Nitrate Nitrogen</p>	<p>Environmental Testing</p>	<p>Concentration/ Quantitative analysis</p>	<p>i.Tandon HLS (Ed.) 2009. Methods of Analysis of Soils, Plants, Waters, Fertilizer and Organic Manures Fertilizer Development and Consultation Organization, New Delhi. Page No. 161-162 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>
<p>Uric Nitrogen</p>	<p>Environmental Testing</p>	<p>Concentration/ Quantitative analysis</p>	<p>i.Tandon HLS (Ed.) 2009. Methods of Analysis of Soils, Plants, Waters, Fertilizer and Organic Manures Fertilizer Development and Consultation Organization, New Delhi. Page No. 161-162 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>