



Association of
American Plant
Food Control
Officials

Magruder Certificate of Analysis

Magruder Sample #190911 Grade 10-45-10sasdfasdf

Analyte	Value	± Standard Uncertainty	# Labs
Ammoniacal Nitrogen (%)	8.829	0.059	35
Total Nitrogen (10%)	10.35	0.06	86
Total Phosphorus as P2O5 (%)	45.32	0.19	54
Direct Available Phosphorus as P2O5 (45%)	45.06	0.13	47
Soluble Potassium as K2O (10%)	10.92	0.12	92
Acid Soluble Magnesium (%)	0.04818	0.00278	16
Acid Soluble Boron (0.02%)	0.02026	0.00044	37
Acid Soluble Copper (0.05%)	0.04879	0.00155	56
Acid Soluble Iron (0.1%)	0.1018	0.0021	58
Acid Soluble Manganese (0.05%)	0.05370	0.00109	50
Acid Soluble Molybdenum (5ppm)	3.920	0.750	19
Acid Soluble Zinc (0.05%)	0.04880	0.00143	53

1. Data obtained from participant results in the Magruder Check Sample Program.
2. Guaranteed concentrations noted by the value preceding the unit in Analyte name.
3. Values are robust means. Standard uncertainty determined as $1.25 \times \text{robust standard deviation} / \sqrt{\text{\#Labs}}$. Results only shown for analytes tested by 16 or more labs. Values and uncertainties for analytes tested by less than 16 labs are available in Analyte Reports.
4. Technical information on Certificat of Analysis available at www.magruderchecksample.org/prod/Articles.html