



Association of
American Plant
Food Control
Officials

Magruder Certificate of Analysis

Magruder Sample #201011 Grade 10-0-20

Analyte	Value	± Standard Uncertainty	# Labs
Ammoniacal N (%)	9.746	0.182	37
Total N (10%)	9.809	0.168	69
Soluble K ₂ O (20%)	24.77	0.5	75
Total S (20.5%)	20.98	0.12	56
Acid Soluble Cu (%)	0.00186	0.00021	19
Acid Soluble Fe (1%)	1.011	0.020	65
Acid Soluble Mn (0.2%)	0.2466	0.0069	57
Acid Soluble Zn (0.2%)	0.2111	0.0035	60

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 Certificate of Analysis available at www.magruderchecksample.org/prod/Articles.html