



Association of
American Plant
Food Control
Officials

Magruder Certificate of Analysis

Magruder Sample #210811 11-52-0 MAP

Analyte	Value	± Standard Uncertainty	# Labs
Ammoniacal N (%)	10.99	0.06	33
Total N (11%)	11.21	0.04	70
Total P2O5 (%)	51.84	0.14	45
Direct Available P2O5 (52%)	51.89	0.11	52
Acid Soluble Cd (ppm)	60.18	2.63	19
Acid Soluble Cr (ppm)	277.4	10.9	17
Acid Soluble Ni (ppm)	43.89	2.07	19
Acid Soluble Zn (%)	0.09186	0.00360	25

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