

# magruder fertilizer

## check sample program

Sample # 180211: Grade 14-14-14  
 Analyte Report Card for Lab Code 0494

STRIVING FOR EXCELLENCE IN ANALYSIS

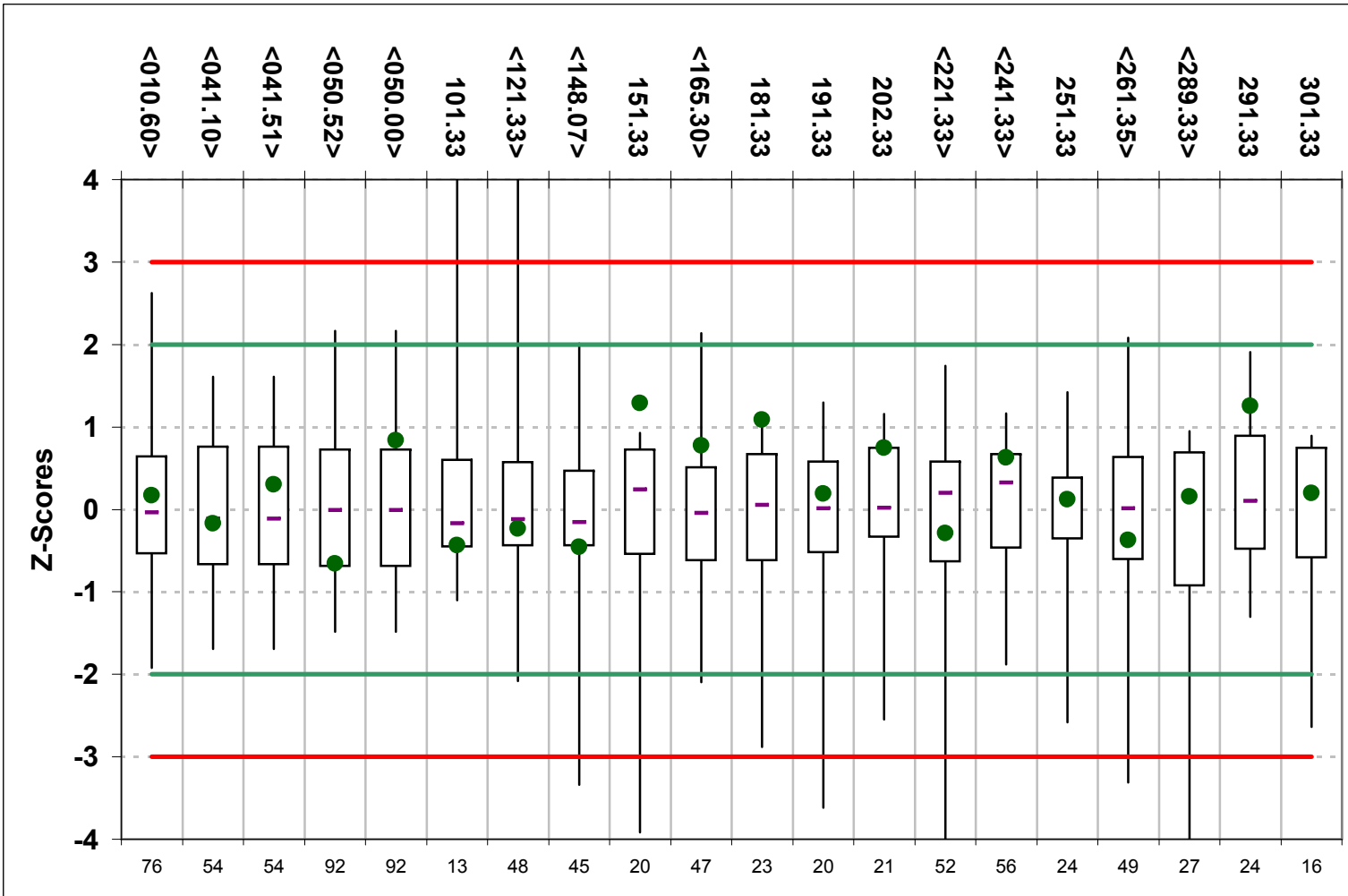
### Proficiency Testing For 22 Analytes

Issue Date : 03/31/2018

Analyte Group	Analyte Group (Units)	Lab 0494 Data		Analyte Values				Magruder	Your	Flag
		Value	range	Rob Mean	Rob SD	R-bar	# Tests	Z Score	Method	
010	Total Nitrogen (14%)	13.89	0.1300	13.85	0.2124	0.1115	76	0.17	010.60	0
041	Direct Available Phosphorus as P2O5 (14%)	14.35	0.4100	14.40	0.3396	0.1381	54	-0.17	041.10	0
041	Direct Available Phosphorus as P2O5 (14%)	14.51	0.8100	14.40	0.3396	0.1381	54	0.30	041.51	1
050	Soluble Potassium as K2O (14%)	14.20	0.3800	14.55	0.5313	0.1695	92	-0.66	050.52	0
050	Soluble Potassium as K2O (14%)	15.00	0.0100	14.55	0.5313	0.1695	92	0.84	050.00	0
101	Acid Soluble Calcium (%)	0.2810	0.0051	0.3004	0.0446	0.0208	13	-0.44	101.33	0
121	Acid Soluble Magnesium (1%)	0.5679	0.0100	0.5800	0.0525	0.0161	48	-0.23	121.33	0
148	Total Sulfur (7.75%)	10.30	0.7526	10.48	0.4015	0.1959	45	-0.45	148.07	0
151	Acid Soluble Arsenic (ppm)	179.8	7.566	157.4	17.36	6.333	20	1.29	151.33	0
165	Acid Soluble Boron (0.2%)	0.2186	0.0010	0.2058	0.0165	0.0068	47	0.78	165.30	0
181	Acid Soluble Cadmium (ppm)	207.0	17.91	188.6	16.98	12.92	23	1.08	181.33	0
191	Acid Soluble Chromium (ppm)	603.8	16.94	589.4	75.71	30.47	20	0.19	191.33	0
202	Acid Soluble Cobalt (ppm)	395.4	10.33	375.8	26.12	8.595	21	0.75	202.33	0
221	Acid Soluble Copper (0.06%)	0.1216	0.0095	0.1266	0.0173	0.0072	52	-0.29	221.33	0
241	Acid Soluble Iron (1%)	0.7003	0.0163	0.6342	0.1053	0.0212	56	0.63	241.33	0
251	Acid Soluble Lead (ppm)	938.1	9.368	923.1	121.2	62.75	24	0.12	251.33	0
261	Acid Soluble Manganese (0.16%)	0.1579	0.0015	0.1623	0.0120	0.0072	49	-0.37	261.35	0
289	Acid Soluble Molybdenum (50ppm)	844.5	55.00	826.5	115.4	29.96	27	0.16	289.33	0
291	Acid Soluble Nickel (ppm)	16.96	1.691	13.41	2.824	1.343	24	1.26	291.33	0
301	Acid Soluble Selenium (ppm)	318.1	1.352	310.5	38.14	22.47	16	0.20	301.33	0
311	Sodium (%)	0.4064	0.0456	0.4599	0.0488	0.0223	12	-1.10	311.33	0
321	Acid Soluble Zinc (0.13%)	0.1956	0.0018	0.1844	0.0198	0.0086	55	0.56	321.33	0

Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or -2 and -3 (warning) and Green = Z < 2 and >-2 (OK at 95%). Flags indicate data usage: 0 = Used, 1 = rejected for duplicates too far apart, 2 = rejected as extreme outlier and a 4 flag indicates rejected due to 0 value/s submitted. The 9 Flag indicates a data problem - scores not calculated. Robust statistics not used if < 6 labs used in calculations, in this case the Z Scores are grey and included for information only. Your offset values are higher (±) or lower (†) than the Robust Analyte value ± Investigational Allowance. Analyte codes in light green indicate a guaranteed analyte. Lab values below detection limits reported solely for this PT program. Your offset values are higher (±) or lower (†) than the Robust Analyte value ± Investigational Allowance.

Z-Score Box and Whisker Plots for Lab # 0494 <guaranteed analyte>

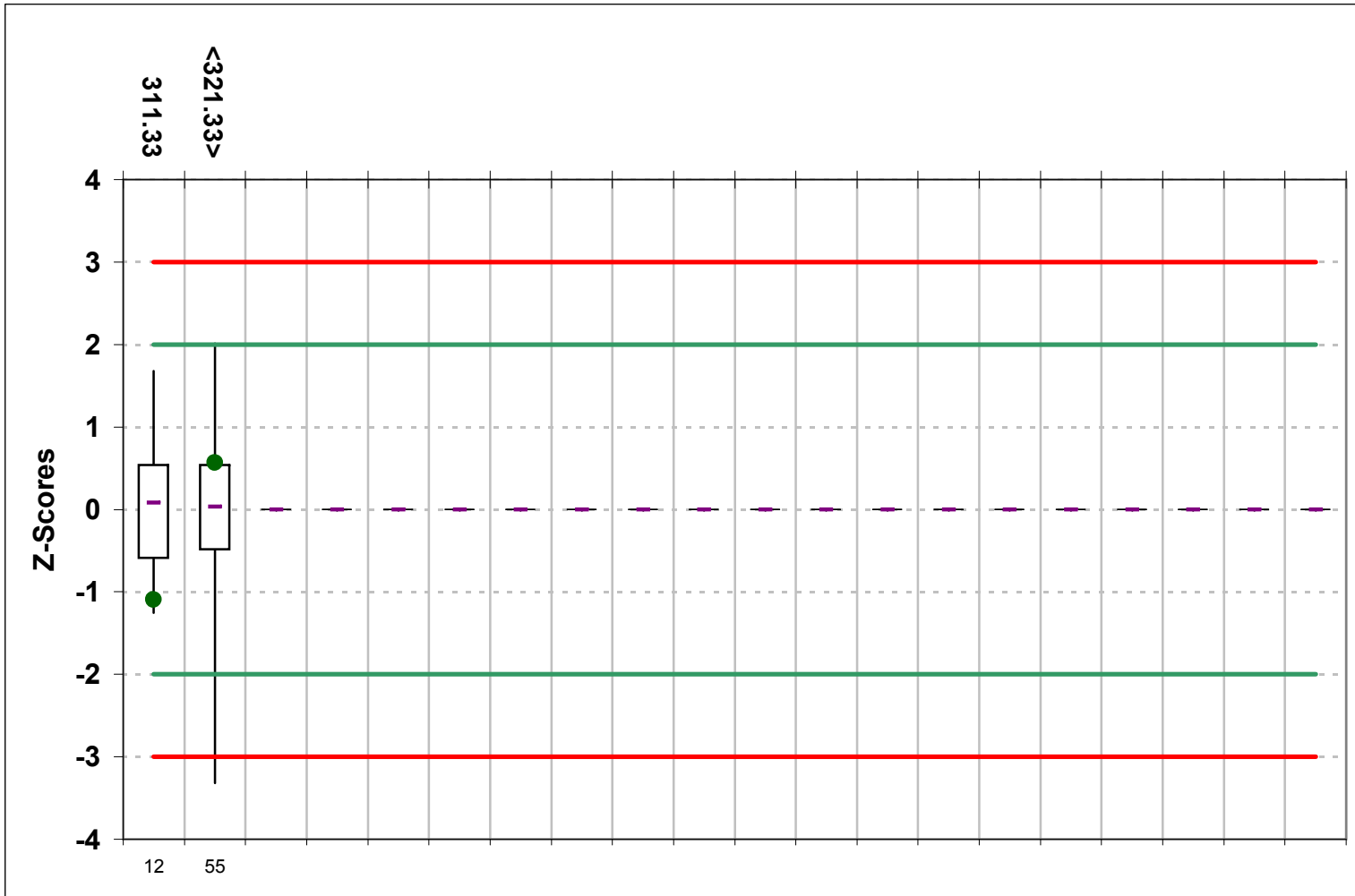


Guaranteed in This Sample			
Analyte	Code	Value*	IA
N	010	13.849	0.628
P2O5	040	14.707	0.700
K2O	050	14.550	0.889
Mg	121	0.580	0.229
S	148	10.478	0.724
B	165	0.206	0.034
Cu	221	0.127	0.018
Fe	241	0.634	0.068
Mn	261	0.162	0.021
Mo	289	826.480	248.944
Zn	321	0.184	0.023

\* Value is the Robust Analyte Value estimated using the primary Analyte Codes for this sample and may not reflect the Label Guarantee.

**Notes:** The Methods you used are indicated above and the # Labs involved are below the Box and Whisker. Your Z-Score is indicated by the Black Dot. If you do not see a Black Dot your score is off the chart. Dots between the Green lines are acceptable Z-Scores. Dots outside the Red lines are actionable. The Bar, Box and Whisker represent Median, 25% to 75% percentile and 5% to 95% percentile respectively.

Z-Score Box and Whisker Plots for Lab # 0494 <guaranteed analyte>



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