

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

Sample # 180211

Grade 14-14-14

Statistical Summary

Analytes: 37

Labs Reporting: 100

Issue Date : 03/31/2018

Analyte Code	Analyte Sample # 180211	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Analyte IA Ratio	Average Range (R-bar)	Hornitz %RSD
001	Ammoniacal Nitrogen (%)	36	34	13.71	0.4996	13.73		0.3762	0.0806	2.74%		0.0900	2.70%
002	Nitrate Nitrogen (%)	1		0.0500									
003	Water Insoluble Nitrogen (%)	1		0.0000									
010	Total Nitrogen (14%)	77	76	13.84	0.3106	13.85	0.6285	0.2124	0.0305	1.53%	0.79	0.1115	2.69%
020	Total Phosphorus as P2O5 (%)	53	52	14.81	0.6902	14.75		0.5464	0.0947	3.71%		0.1995	2.67%
030	Citrate Insoluble Phosphorus as P2O5 (%)	2	2	7.160	10.03								
040	Indirect Available Phosphorus as P2O5 (14%)	3	3	14.71	0.3003	14.71	0.7000	0.3003	0.2167	2.04%	1.00	0.0937	2.67%
041	Direct Available Phosphorus as P2O5 (14%)	55	54	14.39	0.3927	14.40	0.7000	0.3396	0.0578	2.36%	1.13	0.1381	2.68%
048	Water Soluble Phosphorus as P2O5 (%)	6	5	13.20	0.1827	13.20		0.1827	0.1022	1.38%		0.1460	2.71%
050	Soluble Potassium as K2O (14%)	94	92	14.60	0.8323	14.55	0.8893	0.5313	0.0692	3.65%	1.39	0.1695	2.67%
060	Water (Free) (%)	6	6	1.362	1.152	1.271		1.089	0.5555	85.65%		0.2242	3.86%
101	Acid Soluble Calcium (%)	14	13	0.3243	0.0935	0.3004	0.2150	0.0446	0.0155	14.85%	0.48	0.0208	4.79%
121	Acid Soluble Magnesium (1%)	49	48	0.5881	0.1294	0.5800	0.2290	0.0525	0.0095	9.05%	0.53	0.0161	4.34%
131	Water Soluble Magnesium (%)	10	9	0.3312	0.1699	0.3267		0.1768	0.0736	54.10%		0.0236	4.73%
143	Elemental Sulfur (%)	6	5	8.291	4.456	8.291		4.456	2.491	53.75%		0.0420	2.91%
145	Sulfate Sulfur, HCl soluble (%)	11	11	10.28	0.8830	10.46		0.4606	0.1736	4.40%		0.1320	2.81%
148	Total Sulfur (7.75%)	46	45	10.47	0.7354	10.48	0.7239	0.4015	0.0748	3.83%	1.29	0.1959	2.81%
149	Sulfur - HNO3 soluble (%)	4	4	10.01	1.644	10.01		1.644	1.027	16.43%		0.0375	2.83%
151	Acid Soluble Arsenic (ppm)	21	20	150.8	32.16	157.4		17.36	4.851	11.03%		6.333	7.47%
165	Acid Soluble Boron (0.2%)	47	47	0.2046	0.0234	0.2058	0.0339	0.0165	0.0030	8.01%	1.13	0.0068	5.07%
171	Water Soluble Boron (%)	8	8	0.1414	0.0395	0.1404		0.0426	0.0188	30.33%		0.0168	5.37%
181	Acid Soluble Cadmium (ppm)	24	23	185.5	22.04	188.6		16.98	4.425	9.00%		12.92	7.27%
190	Water Soluble Chlorine (%)	2	2	7.333	7.068								
191	Acid Soluble Chromium (ppm)	21	20	560.4	157.3	589.4		75.71	21.16	12.84%		30.47	6.12%
202	Acid Soluble Cobalt (ppm)	22	21	362.5	84.35	375.8	113.7464	26.12	7.124	6.95%	0.53	8.595	6.55%
221	Acid Soluble Copper (0.06%)	53	52	0.1214	0.0345	0.1266	0.0177	0.0173	0.0030	13.66%	2.28	0.0072	5.46%
241	Acid Soluble Iron (1%)	57	56	0.6160	0.1527	0.6342	0.0684	0.1053	0.0176	16.61%	3.59	0.0212	4.28%
251	Acid Soluble Lead (ppm)	25	24	890.5	205.8	923.1		121.2	30.93	13.13%		62.75	5.72%
261	Acid Soluble Manganese (0.16%)	52	49	0.1621	0.0143	0.1623	0.0212	0.0120	0.0022	7.42%	1.32	0.0072	5.26%
271	Water Soluble Manganese (%)	6	5	0.0287	0.0403	0.0287		0.0403	0.0225	140.12%		0.0045	6.82%
281	Acid Soluble Mercury (ppm)	7	7	40.98	20.07	40.98		22.76	10.75	55.55%		1.584	9.15%

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289	Acid Soluble Molybdenum (50ppm)	29	27	780.1	313.7	826.5	248.9441	115.4	27.76	13.96%	1.08	29.96	5.82%
291	Acid Soluble Nickel (ppm)	26	24	13.13	3.250	13.41		2.824	0.7205	21.05%		1.343	10.82%
301	Acid Soluble Selenium (ppm)	16	16	301.2	57.65	310.5		38.14	11.92	12.28%		22.47	6.74%
311	Sodium (%)	12	12	0.4636	0.0510	0.4599	0.0510	0.0488	0.0176	10.61%	2.23	0.0223	4.50%
321	Acid Soluble Zinc (0.13%)	56	55	0.1814	0.0389	0.1844	0.0234	0.0198	0.0033	10.76%	1.97	0.0086	5.16%
325	Water Soluble Zinc (%)	8	7	0.1251	0.1465	0.1032		0.1111	0.0525	107.62%		0.0530	5.63%

The Analyte IA Ratio = 2.33 * Robust SD / IA at the Analyte Assigned Value. IA ratios of 1 and less indicate participant data dispersion is as good or less than the IA. Red indicates the IA ratio is significantly greater than 1, Orange indicates marginally greater than 1, Green indicates IA ratio is not significantly greater than 1 and Grey indicates < 6 labs reporting.