

# magruder fertilizer

## check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

# Analytes: 31

Sample # 170611

Lab Values

# Labs Reporting: 90

Grade 2-15-15 w/PO3

Issue Date : 07/31/2017

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001	Ammoniacal Nitrogen (%)	0533	0.3700	0.0800	0.5315	0.0907	0.0246	28	-1.78	001.99	0
001	Ammoniacal Nitrogen (%)	0524	0.3807	0.0168	0.5315	0.0907	0.0246	28	-1.66	001.99	0
001	Ammoniacal Nitrogen (%)	0423	0.4050	0.0100	0.5315	0.0907	0.0246	28	-1.39	001.99	0
001	Ammoniacal Nitrogen (%)	0309	0.4500	0.0400	0.5315	0.0907	0.0246	28	-0.90	001.10	0
001	Ammoniacal Nitrogen (%)	0368	0.4527	0.0006	0.5315	0.0907	0.0246	28	-0.87	001.99	0
001	Ammoniacal Nitrogen (%)	0231	0.4600	0.0200	0.5315	0.0907	0.0246	28	-0.79	001.99	0
001	Ammoniacal Nitrogen (%)	0481	0.4600	0.0000	0.5315	0.0907	0.0246	28	-0.79	001.99	0
001	Ammoniacal Nitrogen (%)	0027	0.4800	0.0000	0.5315	0.0907	0.0246	28	-0.57	001.99	0
001	Ammoniacal Nitrogen (%)	0117	0.4850	0.0100	0.5315	0.0907	0.0246	28	-0.51	001.10	0
001	Ammoniacal Nitrogen (%)	0486	0.4850	0.0100	0.5315	0.0907	0.0246	28	-0.51	001.10	0
001	Ammoniacal Nitrogen (%)	0096	0.5000	0.0000	0.5315	0.0907	0.0246	28	-0.35	001.99	0
001	Ammoniacal Nitrogen (%)	0537	0.5050	0.0300	0.5315	0.0907	0.0246	28	-0.29	001.99	0
001	Ammoniacal Nitrogen (%)	0389	0.5150	0.0100	0.5315	0.0907	0.0246	28	-0.18	001.10	0
001	Ammoniacal Nitrogen (%)	0522	0.5200	0.0000	0.5315	0.0907	0.0246	28	-0.13	001.99	0
001	Ammoniacal Nitrogen (%)	0230	0.5500	0.0400	0.5315	0.0907	0.0246	28	0.20	001.10	0
001	Ammoniacal Nitrogen (%)	0498	0.5500	0.1000	0.5315	0.0907	0.0246	28	0.20	001.10	0
001	Ammoniacal Nitrogen (%)	0090	0.5550	0.0500	0.5315	0.0907	0.0246	28	0.26	001.10	0
001	Ammoniacal Nitrogen (%)	0451	0.5550	0.0100	0.5315	0.0907	0.0246	28	0.26	001.10	0
001	Ammoniacal Nitrogen (%)	0535	0.5600	0.0200	0.5315	0.0907	0.0246	28	0.31	001.99	0
001	Ammoniacal Nitrogen (%)	0532	0.5800	0.0200	0.5315	0.0907	0.0246	28	0.54	001.99	0
001	Ammoniacal Nitrogen (%)	0539	0.5900	0.0200	0.5315	0.0907	0.0246	28	0.65	001.99	0
001	Ammoniacal Nitrogen (%)	0535	0.5950	0.0300	0.5315	0.0907	0.0246	28	0.70	001.10	0
001	Ammoniacal Nitrogen (%)	0531	0.6000	0.0400	0.5315	0.0907	0.0246	28	0.76	001.10	0
001	Ammoniacal Nitrogen (%)	0540	0.6000	0.0000	0.5315	0.0907	0.0246	28	0.76	001.99	0
001	Ammoniacal Nitrogen (%)	0220	0.6450	0.0100	0.5315	0.0907	0.0246	28	1.25	001.99	0
001	Ammoniacal Nitrogen (%)	0526	0.6600	0.0000	0.5315	0.0907	0.0246	28	1.42	001.10	0
001	Ammoniacal Nitrogen (%)	0530	0.6650	0.0300	0.5315	0.0907	0.0246	28	1.47	001.99	0
001	Ammoniacal Nitrogen (%)	0501	0.7450	0.0900	0.5315	0.0907	0.0246	28	2.35	001.99	0
001	Ammoniacal Nitrogen (%)	0234	0.6950	0.2700	0.5315	0.0907	0.0246	28	1.80	001.10	1
002	Nitrate Nitrogen (%)	0530	0.8050	0.0500				1		002.99	0
003	Water Insoluble Nitrogen (%)	0500	0.4700	0.0000				1		003.99	0
005	Urea Nitrogen (%)	0451	1.500	0.0400	1.701	0.1687	0.0521	13	-1.19	005.99	0
005	Urea Nitrogen (%)	0532	1.525	0.0300	1.701	0.1687	0.0521	13	-1.04	005.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
005	Urea Nitrogen (%)	0537	1.530	0.0400	1.701	0.1687	0.0521	13	-1.01	005.00	0
005	Urea Nitrogen (%)	0027	1.560	0.0200	1.701	0.1687	0.0521	13	-0.83	005.99	0
005	Urea Nitrogen (%)	0498	1.650	0.1000	1.701	0.1687	0.0521	13	-0.30	005.00	0
005	Urea Nitrogen (%)	0389	1.655	0.0100	1.701	0.1687	0.0521	13	-0.27	005.00	0
005	Urea Nitrogen (%)	0356	1.670	0.0400	1.701	0.1687	0.0521	13	-0.18	005.99	0
005	Urea Nitrogen (%)	0230	1.765	0.0500	1.701	0.1687	0.0521	13	0.38	005.00	0
005	Urea Nitrogen (%)	0309	1.775	0.0100	1.701	0.1687	0.0521	13	0.44	005.99	0
005	Urea Nitrogen (%)	0368	1.795	0.0078	1.701	0.1687	0.0521	13	0.56	005.00	0
005	Urea Nitrogen (%)	0524	1.825	0.2900	1.701	0.1687	0.0521	13	0.74	005.99	0
005	Urea Nitrogen (%)	0481	1.905	0.0100	1.701	0.1687	0.0521	13	1.21	005.99	0
005	Urea Nitrogen (%)	0533	2.005	0.0300	1.701	0.1687	0.0521	13	1.80	005.99	0
005	Urea Nitrogen (%)	0234	1.470	0.4000	1.701	0.1687	0.0521	13	-1.37	005.99	1
007	Urea (%)	0531	1.465	0.0100	1.522	0.0513	0.0700	3	-1.10	007.99	0
007	Urea (%)	0486	1.535	0.1300	1.522	0.0513	0.0700	3	0.26	007.00	0
007	Urea (%)	0220	1.565	0.0700	1.522	0.0513	0.0700	3	0.84	007.99	0
010	Total Nitrogen (2%)	0541	1.035*	0.0100	2.094	0.1521	0.0386	80	-6.96	010.60	0
010	Total Nitrogen (2%)	0423	1.500*	0.1000	2.094	0.1521	0.0386	80	-3.91	010.60	0
010	Total Nitrogen (2%)	0018	1.665	0.0500	2.094	0.1521	0.0386	80	-2.82	010.60	0
010	Total Nitrogen (2%)	0523	1.700	0.0000	2.094	0.1521	0.0386	80	-2.59	010.60	0
010	Total Nitrogen (2%)	0526	1.720	0.0000	2.094	0.1521	0.0386	80	-2.46	010.17	0
010	Total Nitrogen (2%)	0106	1.730	0.0000	2.094	0.1521	0.0386	80	-2.40	010.60	0
010	Total Nitrogen (2%)	0095	1.820	0.0400	2.094	0.1521	0.0386	80	-1.80	010.60	0
010	Total Nitrogen (2%)	0421	1.855	0.0300	2.094	0.1521	0.0386	80	-1.57	010.60	0
010	Total Nitrogen (2%)	0389	1.870	0.1000	2.094	0.1521	0.0386	80	-1.47	010.60	0
010	Total Nitrogen (2%)	0043	1.875	0.0100	2.094	0.1521	0.0386	80	-1.44	010.60	0
010	Total Nitrogen (2%)	0055	1.885	0.0700	2.094	0.1521	0.0386	80	-1.38	010.60	0
010	Total Nitrogen (2%)	0042	1.925	0.1300	2.094	0.1521	0.0386	80	-1.11	010.60	0
010	Total Nitrogen (2%)	0527	1.948	0.0400	2.094	0.1521	0.0386	80	-0.96	010.60	0
010	Total Nitrogen (2%)	0231	1.955	0.0100	2.094	0.1521	0.0386	80	-0.92	010.60	0
010	Total Nitrogen (2%)	0543	1.969	0.0070	2.094	0.1521	0.0386	80	-0.83	010.60	0
010	Total Nitrogen (2%)	0041	1.970	0.0600	2.094	0.1521	0.0386	80	-0.82	010.60	0
010	Total Nitrogen (2%)	0072	1.970	0.1000	2.094	0.1521	0.0386	80	-0.82	010.60	0
010	Total Nitrogen (2%)	0500	1.980	0.0000	2.094	0.1521	0.0386	80	-0.75	010.11	0
010	Total Nitrogen (2%)	0538	1.980	0.0400	2.094	0.1521	0.0386	80	-0.75	010.11	0
010	Total Nitrogen (2%)	0508	1.998	0.0070	2.094	0.1521	0.0386	80	-0.64	010.99	0
010	Total Nitrogen (2%)	0481	2.005	0.0100	2.094	0.1521	0.0386	80	-0.59	010.12	0
010	Total Nitrogen (2%)	0307	2.009	0.0170	2.094	0.1521	0.0386	80	-0.56	010.60	0
010	Total Nitrogen (2%)	0501	2.040	0.0200	2.094	0.1521	0.0386	80	-0.36	010.60	0
010	Total Nitrogen (2%)	0486	2.050	0.0400	2.094	0.1521	0.0386	80	-0.29	010.60	0
010	Total Nitrogen (2%)	0105	2.053	0.0680	2.094	0.1521	0.0386	80	-0.27	010.60	0
010	Total Nitrogen (2%)	0531	2.060	0.0200	2.094	0.1521	0.0386	80	-0.23	010.11	0
010	Total Nitrogen (2%)	0185	2.060	0.0000	2.094	0.1521	0.0386	80	-0.23	010.12	0
010	Total Nitrogen (2%)	0034	2.061	0.0090	2.094	0.1521	0.0386	80	-0.22	010.60	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010	Total Nitrogen (2%)	0073	2.065	0.0500	2.094	0.1521	0.0386	80	-0.19	010.60	0
010	Total Nitrogen (2%)	0494	2.065	0.0500	2.094	0.1521	0.0386	80	-0.19	010.60	0
010	Total Nitrogen (2%)	0035	2.070	0.0400	2.094	0.1521	0.0386	80	-0.16	010.60	0
010	Total Nitrogen (2%)	0027	2.070	0.0200	2.094	0.1521	0.0386	80	-0.16	010.60	0
010	Total Nitrogen (2%)	0137	2.070	0.0600	2.094	0.1521	0.0386	80	-0.16	010.60	0
010	Total Nitrogen (2%)	0481	2.070	0.0200	2.094	0.1521	0.0386	80	-0.16	010.60	0
010	Total Nitrogen (2%)	0233	2.074	0.0010	2.094	0.1521	0.0386	80	-0.14	010.60	0
010	Total Nitrogen (2%)	0371	2.075	0.0100	2.094	0.1521	0.0386	80	-0.13	010.11	0
010	Total Nitrogen (2%)	0483	2.075	0.0300	2.094	0.1521	0.0386	80	-0.13	010.60	0
010	Total Nitrogen (2%)	0476	2.076	0.0406	2.094	0.1521	0.0386	80	-0.12	010.99	0
010	Total Nitrogen (2%)	0524	2.083	0.0068	2.094	0.1521	0.0386	80	-0.08	010.60	0
010	Total Nitrogen (2%)	0090	2.085	0.0900	2.094	0.1521	0.0386	80	-0.06	010.11	0
010	Total Nitrogen (2%)	0292	2.090	0.0000	2.094	0.1521	0.0386	80	-0.03	010.60	0
010	Total Nitrogen (2%)	0105	2.100	0.0200	2.094	0.1521	0.0386	80	0.04	010.11	0
010	Total Nitrogen (2%)	0493	2.100	0.1000	2.094	0.1521	0.0386	80	0.04	010.99	0
010	Total Nitrogen (2%)	0234	2.115	0.0100	2.094	0.1521	0.0386	80	0.14	010.60	0
010	Total Nitrogen (2%)	0522	2.115	0.0100	2.094	0.1521	0.0386	80	0.14	010.99	0
010	Total Nitrogen (2%)	0451	2.122	0.0480	2.094	0.1521	0.0386	80	0.18	010.60	0
010	Total Nitrogen (2%)	0416	2.125	0.0100	2.094	0.1521	0.0386	80	0.20	010.11	0
010	Total Nitrogen (2%)	0029	2.133	0.0300	2.094	0.1521	0.0386	80	0.25	010.60	0
010	Total Nitrogen (2%)	0354	2.140	0.0050	2.094	0.1521	0.0386	80	0.30	010.60	0
010	Total Nitrogen (2%)	0114	2.140	0.0200	2.094	0.1521	0.0386	80	0.30	010.11	0
010	Total Nitrogen (2%)	0513	2.145	0.0300	2.094	0.1521	0.0386	80	0.33	010.99	0
010	Total Nitrogen (2%)	0535	2.150	0.1000	2.094	0.1521	0.0386	80	0.37	010.11	0
010	Total Nitrogen (2%)	0518	2.150	0.1000	2.094	0.1521	0.0386	80	0.37	010.99	0
010	Total Nitrogen (2%)	0136	2.160	0.0600	2.094	0.1521	0.0386	80	0.43	010.60	0
010	Total Nitrogen (2%)	0049	2.170	0.0200	2.094	0.1521	0.0386	80	0.50	010.60	0
010	Total Nitrogen (2%)	0472	2.170	0.0400	2.094	0.1521	0.0386	80	0.50	010.60	0
010	Total Nitrogen (2%)	0086	2.171	0.0166	2.094	0.1521	0.0386	80	0.51	010.60	0
010	Total Nitrogen (2%)	0377	2.175	0.0500	2.094	0.1521	0.0386	80	0.53	010.60	0
010	Total Nitrogen (2%)	0131	2.180	0.0200	2.094	0.1521	0.0386	80	0.56	010.60	0
010	Total Nitrogen (2%)	0037	2.181	0.0750	2.094	0.1521	0.0386	80	0.57	010.60	0
010	Total Nitrogen (2%)	0157	2.195	0.0100	2.094	0.1521	0.0386	80	0.66	010.60	0
010	Total Nitrogen (2%)	0356	2.195	0.0100	2.094	0.1521	0.0386	80	0.66	010.60	0
010	Total Nitrogen (2%)	0498	2.200	0.0000	2.094	0.1521	0.0386	80	0.69	010.12	0
010	Total Nitrogen (2%)	0534	2.200	0.0000	2.094	0.1521	0.0386	80	0.69	010.60	0
010	Total Nitrogen (2%)	0220	2.200	0.0200	2.094	0.1521	0.0386	80	0.69	010.99	0
010	Total Nitrogen (2%)	0521	2.202	0.0000	2.094	0.1521	0.0386	80	0.71	010.60	0
010	Total Nitrogen (2%)	0324	2.205	0.0300	2.094	0.1521	0.0386	80	0.73	010.60	0
010	Total Nitrogen (2%)	0452	2.245	0.0100	2.094	0.1521	0.0386	80	0.99	010.60	0
010	Total Nitrogen (2%)	0540	2.250	0.1000	2.094	0.1521	0.0386	80	1.02	010.11	0
010	Total Nitrogen (2%)	0040	2.250	0.1000	2.094	0.1521	0.0386	80	1.02	010.60	0
010	Total Nitrogen (2%)	0230	2.270	0.0600	2.094	0.1521	0.0386	80	1.16	010.60	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010	Total Nitrogen (2%)	0309	2.280	0.1400	2.094	0.1521	0.0386	80	1.22	010.11	0
010	Total Nitrogen (2%)	0539	2.305	0.0100	2.094	0.1521	0.0386	80	1.39	010.11	0
010	Total Nitrogen (2%)	0291	2.315	0.0100	2.094	0.1521	0.0386	80	1.45	010.60	0
010	Total Nitrogen (2%)	0368	2.339	0.1180	2.094	0.1521	0.0386	80	1.61	010.60	0
010	Total Nitrogen (2%)	0325	2.345	0.0100	2.094	0.1521	0.0386	80	1.65	010.60	0
010	Total Nitrogen (2%)	0536	2.425	0.0300	2.094	0.1521	0.0386	80	2.17	010.11	0
010	Total Nitrogen (2%)	0025	2.637†	0.0350	2.094	0.1521	0.0386	80	3.56	010.60	0
010	Total Nitrogen (2%)	0360	2.740†	0.1200	2.094	0.1521	0.0386	80	4.25	010.60	0
010	Total Nitrogen (2%)	0007	2.750†	0.1000	2.094	0.1521	0.0386	80	4.31	010.60	0
010	Total Nitrogen (2%)	0070	2.075	0.2700	2.094	0.1521	0.0386	80	-0.13	010.60	1
010	Total Nitrogen (2%)	0482	2.200	0.2000	2.094	0.1521	0.0386	80	0.69	010.60	1
010	Total Nitrogen (2%)	0530	2.200	0.2000	2.094	0.1521	0.0386	80	0.69	010.99	1
020	Total Phosphorus as P2O5 (%)	0096	12.27	0.0100	15.15	0.6201	0.1897	57	-4.64	020.40	0
020	Total Phosphorus as P2O5 (%)	0169	12.37	0.0600	15.15	0.6201	0.1897	57	-4.48	020.20	0
020	Total Phosphorus as P2O5 (%)	0526	12.66	0.1900	15.15	0.6201	0.1897	57	-4.02	020.99	0
020	Total Phosphorus as P2O5 (%)	0324	13.40	0.0000	15.15	0.6201	0.1897	57	-2.81	020.20	0
020	Total Phosphorus as P2O5 (%)	0476	13.51	0.0412	15.15	0.6201	0.1897	57	-2.63	020.20	0
020	Total Phosphorus as P2O5 (%)	0530	13.60	0.2000	15.15	0.6201	0.1897	57	-2.49	020.20	0
020	Total Phosphorus as P2O5 (%)	0541	13.93	0.1600	15.15	0.6201	0.1897	57	-1.96	020.20	0
020	Total Phosphorus as P2O5 (%)	0230	14.30	0.2000	15.15	0.6201	0.1897	57	-1.36	020.20	0
020	Total Phosphorus as P2O5 (%)	0543	14.34	0.5990	15.15	0.6201	0.1897	57	-1.31	020.50	0
020	Total Phosphorus as P2O5 (%)	0309	14.43	0.0100	15.15	0.6201	0.1897	57	-1.16	020.20	0
020	Total Phosphorus as P2O5 (%)	0472	14.45	0.0300	15.15	0.6201	0.1897	57	-1.13	020.50	0
020	Total Phosphorus as P2O5 (%)	0027	14.56	0.0000	15.15	0.6201	0.1897	57	-0.94	020.20	0
020	Total Phosphorus as P2O5 (%)	0538	14.70	0.0500	15.15	0.6201	0.1897	57	-0.73	020.99	0
020	Total Phosphorus as P2O5 (%)	0416	14.71	0.0100	15.15	0.6201	0.1897	57	-0.71	020.20	0
020	Total Phosphorus as P2O5 (%)	0536	14.84	0.0400	15.15	0.6201	0.1897	57	-0.49	020.99	0
020	Total Phosphorus as P2O5 (%)	0498	14.95	0.3000	15.15	0.6201	0.1897	57	-0.31	020.20	0
020	Total Phosphorus as P2O5 (%)	0534	15.00	0.0000	15.15	0.6201	0.1897	57	-0.23	020.20	0
020	Total Phosphorus as P2O5 (%)	0494	15.03	0.2000	15.15	0.6201	0.1897	57	-0.19	020.10	0
020	Total Phosphorus as P2O5 (%)	0292	15.07	0.1000	15.15	0.6201	0.1897	57	-0.12	020.20	0
020	Total Phosphorus as P2O5 (%)	0423	15.07	0.1000	15.15	0.6201	0.1897	57	-0.12	020.50	0
020	Total Phosphorus as P2O5 (%)	0105	15.08	0.0000	15.15	0.6201	0.1897	57	-0.11	020.40	0
020	Total Phosphorus as P2O5 (%)	0537	15.16	0.1000	15.15	0.6201	0.1897	57	0.02	020.99	0
020	Total Phosphorus as P2O5 (%)	0220	15.17	0.0200	15.15	0.6201	0.1897	57	0.04	020.20	0
020	Total Phosphorus as P2O5 (%)	0531	15.17	0.0200	15.15	0.6201	0.1897	57	0.04	020.99	0
020	Total Phosphorus as P2O5 (%)	0105	15.20	0.1300	15.15	0.6201	0.1897	57	0.08	020.10	0
020	Total Phosphorus as P2O5 (%)	0493	15.20	0.1000	15.15	0.6201	0.1897	57	0.09	020.10	0
020	Total Phosphorus as P2O5 (%)	0157	15.20	0.0000	15.15	0.6201	0.1897	57	0.09	020.50	0
020	Total Phosphorus as P2O5 (%)	0535	15.20	0.2000	15.15	0.6201	0.1897	57	0.09	020.99	0
020	Total Phosphorus as P2O5 (%)	0518	15.22	0.3700	15.15	0.6201	0.1897	57	0.11	020.99	0
020	Total Phosphorus as P2O5 (%)	0433	15.24	0.0300	15.15	0.6201	0.1897	57	0.14	020.50	0
020	Total Phosphorus as P2O5 (%)	0500	15.25	0.1000	15.15	0.6201	0.1897	57	0.17	020.10	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
020	Total Phosphorus as P2O5 (%)	0535	15.25	0.1000	15.15	0.6201	0.1897	57	0.17	020.20	0
020	Total Phosphorus as P2O5 (%)	0231	15.26	0.0200	15.15	0.6201	0.1897	57	0.19	020.20	0
020	Total Phosphorus as P2O5 (%)	0356	15.27	0.3400	15.15	0.6201	0.1897	57	0.20	020.20	0
020	Total Phosphorus as P2O5 (%)	0539	15.28	0.0600	15.15	0.6201	0.1897	57	0.22	020.99	0
020	Total Phosphorus as P2O5 (%)	0049	15.32	0.1300	15.15	0.6201	0.1897	57	0.27	020.10	0
020	Total Phosphorus as P2O5 (%)	0481	15.35	0.1000	15.15	0.6201	0.1897	57	0.33	020.20	0
020	Total Phosphorus as P2O5 (%)	0540	15.35	0.1000	15.15	0.6201	0.1897	57	0.33	020.99	0
020	Total Phosphorus as P2O5 (%)	0368	15.35	0.2465	15.15	0.6201	0.1897	57	0.33	020.50	0
020	Total Phosphorus as P2O5 (%)	0136	15.37	0.0200	15.15	0.6201	0.1897	57	0.36	020.10	0
020	Total Phosphorus as P2O5 (%)	0090	15.39	0.0100	15.15	0.6201	0.1897	57	0.39	020.10	0
020	Total Phosphorus as P2O5 (%)	0389	15.40	0.2100	15.15	0.6201	0.1897	57	0.40	020.50	0
020	Total Phosphorus as P2O5 (%)	0157	15.40	0.2000	15.15	0.6201	0.1897	57	0.41	020.10	0
020	Total Phosphorus as P2O5 (%)	0501	15.45	0.2200	15.15	0.6201	0.1897	57	0.49	020.50	0
020	Total Phosphorus as P2O5 (%)	0486	15.48	0.8200	15.15	0.6201	0.1897	57	0.54	020.40	0
020	Total Phosphorus as P2O5 (%)	0523	15.55	0.3000	15.15	0.6201	0.1897	57	0.65	020.50	0
020	Total Phosphorus as P2O5 (%)	0452	15.64	0.0800	15.15	0.6201	0.1897	57	0.80	020.50	0
020	Total Phosphorus as P2O5 (%)	0508	15.67	0.2400	15.15	0.6201	0.1897	57	0.85	020.50	0
020	Total Phosphorus as P2O5 (%)	0114	15.69	0.3300	15.15	0.6201	0.1897	57	0.87	020.10	0
020	Total Phosphorus as P2O5 (%)	0482	15.70	1.200	15.15	0.6201	0.1897	57	0.89	020.50	0
020	Total Phosphorus as P2O5 (%)	0483	15.73	0.4400	15.15	0.6201	0.1897	57	0.94	020.50	0
020	Total Phosphorus as P2O5 (%)	0451	16.01	0.4400	15.15	0.6201	0.1897	57	1.39	020.50	0
020	Total Phosphorus as P2O5 (%)	0521	16.18	0.0000	15.15	0.6201	0.1897	57	1.67	020.50	0
020	Total Phosphorus as P2O5 (%)	0527	16.34	0.0300	15.15	0.6201	0.1897	57	1.92	020.50	0
020	Total Phosphorus as P2O5 (%)	0524	16.51	0.4420	15.15	0.6201	0.1897	57	2.20	020.50	0
020	Total Phosphorus as P2O5 (%)	0234	16.95	0.2500	15.15	0.6201	0.1897	57	2.90	020.50	0
020	Total Phosphorus as P2O5 (%)	0307	17.09	1.113	15.15	0.6201	0.1897	57	3.13	020.99	0
020	Total Phosphorus as P2O5 (%)	0035	13.98	1.650	15.15	0.6201	0.1897	57	-1.89	020.40	1
020	Total Phosphorus as P2O5 (%)	0042	15.38	1.430	15.15	0.6201	0.1897	57	0.37	020.50	1
020	Total Phosphorus as P2O5 (%)	0300	31.99	0.3600	15.15	0.6201	0.1897	57	27.16	020.20	2
041	Direct Available Phosphorus as P2O5 (15.2%)	0027	11.80*	0.0500	13.51	1.526	0.1224	49	-1.13	041.20	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0029	11.87*	0.0600	13.51	1.526	0.1224	49	-1.08	041.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0086	11.88*	0.3994	13.51	1.526	0.1224	49	-1.07	041.10	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0472	12.01*	0.0400	13.51	1.526	0.1224	49	-0.99	041.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0105	12.30*	0.0700	13.51	1.526	0.1224	49	-0.80	041.10	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0513	12.30*	0.0800	13.51	1.526	0.1224	49	-0.80	041.11	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0105	12.33*	0.1000	13.51	1.526	0.1224	49	-0.78	041.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0043	12.35*	0.0100	13.51	1.526	0.1224	49	-0.77	041.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0037	12.38*	0.0890	13.51	1.526	0.1224	49	-0.74	041.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0055	12.39*	0.1200	13.51	1.526	0.1224	49	-0.74	041.10	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0220	12.40*	0.0900	13.51	1.526	0.1224	49	-0.73	041.11	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0055	12.40*	0.0700	13.51	1.526	0.1224	49	-0.73	041.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0040	12.40*	0.0000	13.51	1.526	0.1224	49	-0.73	041.10	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0538	12.40*	0.0400	13.51	1.526	0.1224	49	-0.73	041.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
041	Direct Available Phosphorus as P2O5 (15.2%)	0493	12.45*	0.1000	13.51	1.526	0.1224	49	-0.70	041.11	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0136	12.49*	0.0300	13.51	1.526	0.1224	49	-0.67	041.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0535	12.50*	0.0000	13.51	1.526	0.1224	49	-0.66	041.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0522	12.51*	0.0900	13.51	1.526	0.1224	49	-0.66	041.11	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0531	12.51*	0.0200	13.51	1.526	0.1224	49	-0.66	041.99	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0535	12.55*	0.1000	13.51	1.526	0.1224	49	-0.63	041.21	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0535	12.55*	0.1000	13.51	1.526	0.1224	49	-0.63	041.99	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0540	12.55*	0.1000	13.51	1.526	0.1224	49	-0.63	041.99	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0034	12.57*	0.3440	13.51	1.526	0.1224	49	-0.62	041.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0539	12.59*	0.0200	13.51	1.526	0.1224	49	-0.61	041.99	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0018	12.60*	0.0000	13.51	1.526	0.1224	49	-0.60	041.40	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0072	12.68*	0.0320	13.51	1.526	0.1224	49	-0.55	041.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0532	12.72*	0.0800	13.51	1.526	0.1224	49	-0.52	041.99	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0117	12.84	0.1700	13.51	1.526	0.1224	49	-0.44	041.11	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0230	13.25	0.1000	13.51	1.526	0.1224	49	-0.17	041.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0137	14.60†	0.0700	13.51	1.526	0.1224	49	0.71	041.50	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0533	14.60†	0.0800	13.51	1.526	0.1224	49	0.71	041.99	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0070	14.69†	0.3400	13.51	1.526	0.1224	49	0.77	041.50	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0131	14.82†	0.1700	13.51	1.526	0.1224	49	0.85	041.40	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0072	14.88†	0.0800	13.51	1.526	0.1224	49	0.90	041.51	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0043	14.98†	0.0400	13.51	1.526	0.1224	49	0.96	041.50	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0040	15.00†	0.0000	13.51	1.526	0.1224	49	0.97	041.51	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0360	15.05†	0.3200	13.51	1.526	0.1224	49	1.01	041.51	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0354	15.09†	0.0240	13.51	1.526	0.1224	49	1.04	041.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0325	15.10†	0.4000	13.51	1.526	0.1224	49	1.04	041.50	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0231	15.14†	0.0700	13.51	1.526	0.1224	49	1.06	041.21	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0368	15.15†	0.1100	13.51	1.526	0.1224	49	1.07	041.50	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0377	15.19†	0.2300	13.51	1.526	0.1224	49	1.10	041.51	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0233	15.19†	0.2800	13.51	1.526	0.1224	49	1.10	041.50	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0007	15.25†	0.3000	13.51	1.526	0.1224	49	1.14	041.50	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0117	15.28†	0.2300	13.51	1.526	0.1224	49	1.15	041.51	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0025	15.32†	0.0300	13.51	1.526	0.1224	49	1.18	041.51	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0291	15.40†	0.0300	13.51	1.526	0.1224	49	1.23	041.50	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0106	15.42†	0.4300	13.51	1.526	0.1224	49	1.25	041.21	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0522	15.54†	0.2600	13.51	1.526	0.1224	49	1.33	041.21	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0073	13.64	0.6700	13.51	1.526	0.1224	49	0.08	041.60	1
048	Water Soluble Phosphorus as P2O5 (%)	0535	12.55	0.1000				2		048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0309	14.22	0.0300				2		048.20	0
050	Soluble Potassium as K2O (15%)	0472	13.34*	0.1300	17.49	0.8170	0.1894	87	-5.09	050.31	0
050	Soluble Potassium as K2O (15%)	0534	14.90*	0.0000	17.49	0.8170	0.1894	87	-3.17	050.30	0
050	Soluble Potassium as K2O (15%)	0537	14.95*	0.3000	17.49	0.8170	0.1894	87	-3.11	050.99	0
050	Soluble Potassium as K2O (15%)	0518	15.08*	0.0000	17.49	0.8170	0.1894	87	-2.95	050.99	0
050	Soluble Potassium as K2O (15%)	0532	15.11*	0.0600	17.49	0.8170	0.1894	87	-2.91	050.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050	Soluble Potassium as K2O (15%)	0230	15.35*	0.1000	17.49	0.8170	0.1894	87	-2.62	050.50	0
050	Soluble Potassium as K2O (15%)	0531	15.56*	0.0200	17.49	0.8170	0.1894	87	-2.36	050.99	0
050	Soluble Potassium as K2O (15%)	0309	15.58*	0.1000	17.49	0.8170	0.1894	87	-2.34	050.30	0
050	Soluble Potassium as K2O (15%)	0526	15.59*	0.1800	17.49	0.8170	0.1894	87	-2.33	050.99	0
050	Soluble Potassium as K2O (15%)	0501	15.88*	0.0200	17.49	0.8170	0.1894	87	-1.97	050.99	0
050	Soluble Potassium as K2O (15%)	0114	16.12*	0.1000	17.49	0.8170	0.1894	87	-1.68	050.00	0
050	Soluble Potassium as K2O (15%)	0513	16.15*	0.0500	17.49	0.8170	0.1894	87	-1.65	050.62	0
050	Soluble Potassium as K2O (15%)	0521	16.23*	0.0000	17.49	0.8170	0.1894	87	-1.54	050.99	0
050	Soluble Potassium as K2O (15%)	0543	16.34*	0.0260	17.49	0.8170	0.1894	87	-1.41	050.52	0
050	Soluble Potassium as K2O (15%)	0541	16.46*	0.5500	17.49	0.8170	0.1894	87	-1.27	050.99	0
050	Soluble Potassium as K2O (15%)	0042	16.46*	0.7200	17.49	0.8170	0.1894	87	-1.26	050.99	0
050	Soluble Potassium as K2O (15%)	0486	16.56	0.3500	17.49	0.8170	0.1894	87	-1.14	050.52	0
050	Soluble Potassium as K2O (15%)	0476	16.58	0.1650	17.49	0.8170	0.1894	87	-1.11	050.99	0
050	Soluble Potassium as K2O (15%)	0500	16.60	0.0000	17.49	0.8170	0.1894	87	-1.09	050.99	0
050	Soluble Potassium as K2O (15%)	0354	16.71	0.1130	17.49	0.8170	0.1894	87	-0.95	050.52	0
050	Soluble Potassium as K2O (15%)	0483	16.87	0.7300	17.49	0.8170	0.1894	87	-0.77	050.51	0
050	Soluble Potassium as K2O (15%)	0041	17.14	0.0300	17.49	0.8170	0.1894	87	-0.44	050.60	0
050	Soluble Potassium as K2O (15%)	0185	17.17	0.1400	17.49	0.8170	0.1894	87	-0.39	050.32	0
050	Soluble Potassium as K2O (15%)	0034	17.30	0.2820	17.49	0.8170	0.1894	87	-0.24	050.62	0
050	Soluble Potassium as K2O (15%)	0233	17.33	0.3700	17.49	0.8170	0.1894	87	-0.20	050.52	0
050	Soluble Potassium as K2O (15%)	0043	17.34	0.1300	17.49	0.8170	0.1894	87	-0.19	050.51	0
050	Soluble Potassium as K2O (15%)	0220	17.37	0.1000	17.49	0.8170	0.1894	87	-0.15	050.00	0
050	Soluble Potassium as K2O (15%)	0106	17.40	0.0900	17.49	0.8170	0.1894	87	-0.12	050.50	0
050	Soluble Potassium as K2O (15%)	0072	17.41	0.0110	17.49	0.8170	0.1894	87	-0.09	050.00	0
050	Soluble Potassium as K2O (15%)	0029	17.47	0.0400	17.49	0.8170	0.1894	87	-0.02	050.62	0
050	Soluble Potassium as K2O (15%)	0389	17.48	0.0500	17.49	0.8170	0.1894	87	-0.02	050.99	0
050	Soluble Potassium as K2O (15%)	0292	17.52	0.0200	17.49	0.8170	0.1894	87	0.04	050.50	0
050	Soluble Potassium as K2O (15%)	0356	17.54	0.4500	17.49	0.8170	0.1894	87	0.05	050.30	0
050	Soluble Potassium as K2O (15%)	0040	17.55	0.3000	17.49	0.8170	0.1894	87	0.07	050.30	0
050	Soluble Potassium as K2O (15%)	0423	17.56	0.9020	17.49	0.8170	0.1894	87	0.08	050.52	0
050	Soluble Potassium as K2O (15%)	0377	17.56	0.1600	17.49	0.8170	0.1894	87	0.09	050.52	0
050	Soluble Potassium as K2O (15%)	0070	17.60	0.4000	17.49	0.8170	0.1894	87	0.13	050.51	0
050	Soluble Potassium as K2O (15%)	0493	17.60	0.1000	17.49	0.8170	0.1894	87	0.13	050.99	0
050	Soluble Potassium as K2O (15%)	0416	17.61	0.0100	17.49	0.8170	0.1894	87	0.14	050.00	0
050	Soluble Potassium as K2O (15%)	0073	17.61	0.1600	17.49	0.8170	0.1894	87	0.15	050.30	0
050	Soluble Potassium as K2O (15%)	0231	17.64	0.0600	17.49	0.8170	0.1894	87	0.18	050.00	0
050	Soluble Potassium as K2O (15%)	0433	17.66	0.0700	17.49	0.8170	0.1894	87	0.20	050.99	0
050	Soluble Potassium as K2O (15%)	0105	17.67	0.0900	17.49	0.8170	0.1894	87	0.21	050.60	0
050	Soluble Potassium as K2O (15%)	0025	17.70	0.1500	17.49	0.8170	0.1894	87	0.25	050.52	0
050	Soluble Potassium as K2O (15%)	0137	17.70	0.0400	17.49	0.8170	0.1894	87	0.26	050.52	0
050	Soluble Potassium as K2O (15%)	0538	17.70	0.0800	17.49	0.8170	0.1894	87	0.26	050.99	0
050	Soluble Potassium as K2O (15%)	0498	17.70	0.2000	17.49	0.8170	0.1894	87	0.26	050.99	0
050	Soluble Potassium as K2O (15%)	0136	17.72	0.0500	17.49	0.8170	0.1894	87	0.27	050.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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050	Soluble Potassium as K2O (15%)	0360	17.73	0.2300	17.49	0.8170	0.1894	87	0.29	050.52	0
050	Soluble Potassium as K2O (15%)	0043	17.73	0.0900	17.49	0.8170	0.1894	87	0.29	050.99	0
050	Soluble Potassium as K2O (15%)	0523	17.75	0.3000	17.49	0.8170	0.1894	87	0.32	050.99	0
050	Soluble Potassium as K2O (15%)	0535	17.75	0.1000	17.49	0.8170	0.1894	87	0.32	050.99	0
050	Soluble Potassium as K2O (15%)	0037	17.75	0.0460	17.49	0.8170	0.1894	87	0.32	050.62	0
050	Soluble Potassium as K2O (15%)	0117	17.76	0.4000	17.49	0.8170	0.1894	87	0.33	050.52	0
050	Soluble Potassium as K2O (15%)	0169	17.76	0.0400	17.49	0.8170	0.1894	87	0.33	050.60	0
050	Soluble Potassium as K2O (15%)	0105	17.76	0.1600	17.49	0.8170	0.1894	87	0.33	050.62	0
050	Soluble Potassium as K2O (15%)	0096	17.78	0.5900	17.49	0.8170	0.1894	87	0.35	050.99	0
050	Soluble Potassium as K2O (15%)	0307	17.80	0.3200	17.49	0.8170	0.1894	87	0.38	050.99	0
050	Soluble Potassium as K2O (15%)	0371	17.80	0.6000	17.49	0.8170	0.1894	87	0.38	050.99	0
050	Soluble Potassium as K2O (15%)	0234	17.81	0.0200	17.49	0.8170	0.1894	87	0.39	050.99	0
050	Soluble Potassium as K2O (15%)	0535	17.85	0.1000	17.49	0.8170	0.1894	87	0.44	050.61	0
050	Soluble Potassium as K2O (15%)	0055	17.88	0.0600	17.49	0.8170	0.1894	87	0.48	050.50	0
050	Soluble Potassium as K2O (15%)	0368	17.89	0.0043	17.49	0.8170	0.1894	87	0.48	050.99	0
050	Soluble Potassium as K2O (15%)	0540	17.90	0.2000	17.49	0.8170	0.1894	87	0.50	050.99	0
050	Soluble Potassium as K2O (15%)	0527	17.91	0.0700	17.49	0.8170	0.1894	87	0.51	050.99	0
050	Soluble Potassium as K2O (15%)	0049	17.95	0.2700	17.49	0.8170	0.1894	87	0.56	050.00	0
050	Soluble Potassium as K2O (15%)	0494	17.95	0.4700	17.49	0.8170	0.1894	87	0.56	050.00	0
050	Soluble Potassium as K2O (15%)	0157	17.95	0.1000	17.49	0.8170	0.1894	87	0.56	050.50	0
050	Soluble Potassium as K2O (15%)	0007	17.95	0.5000	17.49	0.8170	0.1894	87	0.56	050.51	0
050	Soluble Potassium as K2O (15%)	0539	17.95	0.1000	17.49	0.8170	0.1894	87	0.56	050.99	0
050	Soluble Potassium as K2O (15%)	0451	17.98	0.1500	17.49	0.8170	0.1894	87	0.59	050.99	0
050	Soluble Potassium as K2O (15%)	0325	18.00	0.2000	17.49	0.8170	0.1894	87	0.62	050.99	0
050	Soluble Potassium as K2O (15%)	0291	18.01	0.0100	17.49	0.8170	0.1894	87	0.63	050.51	0
050	Soluble Potassium as K2O (15%)	0035	18.03	0.1800	17.49	0.8170	0.1894	87	0.66	050.61	0
050	Soluble Potassium as K2O (15%)	0452	18.08	0.0500	17.49	0.8170	0.1894	87	0.72	050.50	0
050	Soluble Potassium as K2O (15%)	0522	18.09	0.2100	17.49	0.8170	0.1894	87	0.73	050.00	0
050	Soluble Potassium as K2O (15%)	0072	18.19	0.0600	17.49	0.8170	0.1894	87	0.86	050.52	0
050	Soluble Potassium as K2O (15%)	0536	18.30	0.5300	17.49	0.8170	0.1894	87	0.98	050.99	0
050	Soluble Potassium as K2O (15%)	0090	18.35	0.0200	17.49	0.8170	0.1894	87	1.05	050.00	0
050	Soluble Potassium as K2O (15%)	0027	18.48	0.0100	17.49	0.8170	0.1894	87	1.21	050.99	0
050	Soluble Potassium as K2O (15%)	0018	18.55†	0.1000	17.49	0.8170	0.1894	87	1.30	050.62	0
050	Soluble Potassium as K2O (15%)	0055	18.74†	0.1900	17.49	0.8170	0.1894	87	1.52	050.00	0
050	Soluble Potassium as K2O (15%)	0300	18.80†	0.0200	17.49	0.8170	0.1894	87	1.60	050.99	0
050	Soluble Potassium as K2O (15%)	0157	18.85†	0.3000	17.49	0.8170	0.1894	87	1.66	050.30	0
050	Soluble Potassium as K2O (15%)	0324	19.30†	0.8000	17.49	0.8170	0.1894	87	2.21	050.50	0
050	Soluble Potassium as K2O (15%)	0524	19.79†	0.4098	17.49	0.8170	0.1894	87	2.81	050.99	0
050	Soluble Potassium as K2O (15%)	0428	25.36†	0.2707	17.49	0.8170	0.1894	87	9.63	050.30	0
050	Soluble Potassium as K2O (15%)	0533	15.05*	1.190	17.49	0.8170	0.1894	87	-2.99	050.99	1
050	Soluble Potassium as K2O (15%)	0482	17.60	1.200	17.49	0.8170	0.1894	87	0.13	050.99	1
050	Soluble Potassium as K2O (15%)	0530	37.05†	0.5000	17.49	0.8170	0.1894	87	23.94	050.99	2
101	Acid Soluble Calcium (%)	0105	0.0015	0.0000	0.0087	0.0123	0.0015	4	-0.59	101.00	0



Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
101	Acid Soluble Calcium (%)	0105	0.0019	0.0010	0.0087	0.0123	0.0015	4	-0.56	101.03	0
101	Acid Soluble Calcium (%)	0389	0.0045	0.0010	0.0087	0.0123	0.0015	4	-0.34	101.99	0
101	Acid Soluble Calcium (%)	0354	0.0270	0.0040	0.0087	0.0123	0.0015	4	1.49	101.30	0
121	Acid Soluble Magnesium (%)	0105	0.0005	0.0001	0.0011	0.0008	0.0002	8	-0.74	121.00	0
121	Acid Soluble Magnesium (%)	0524	0.0005	0.0000	0.0011	0.0008	0.0002	8	-0.68	121.99	0
121	Acid Soluble Magnesium (%)	0521	0.0007	0.0000	0.0011	0.0008	0.0002	8	-0.44	121.32	0
121	Acid Soluble Magnesium (%)	0389	0.0008	0.0002	0.0011	0.0008	0.0002	8	-0.32	121.99	0
121	Acid Soluble Magnesium (%)	0105	0.0009	0.0009	0.0011	0.0008	0.0002	8	-0.26	121.03	0
121	Acid Soluble Magnesium (%)	0527	0.0010	0.0000	0.0011	0.0008	0.0002	8	-0.07	121.33	0
121	Acid Soluble Magnesium (%)	0530	0.0020	0.0000	0.0011	0.0008	0.0002	8	1.14	121.00	0
121	Acid Soluble Magnesium (%)	0354	0.0110	0.0000	0.0011	0.0008	0.0002	8	12.05	121.30	0
121	Acid Soluble Magnesium (%)	0309	0.0850	0.0100	0.0011	0.0008	0.0002	8	101.79	121.00	1
143	Elemental Sulfur (%)	0389	0.0025	0.0010				1		143.99	0
148	Total Sulfur (%)	0354	0.0285	0.0030				1		148.99	0
149	Sulfur - HNO3 soluble (%)	0521	0.0018	0.0000				2		149.04	0
149	Sulfur - HNO3 soluble (%)	0524	0.0020	0.0000				2		149.04	0
151	Acid Soluble Arsenic (ppm)	0498	2.165	0.0700	2.745	0.4981	0.4225	4	-1.16	151.00	0
151	Acid Soluble Arsenic (ppm)	0220	2.500	0.6000	2.745	0.4981	0.4225	4	-0.49	151.30	0
151	Acid Soluble Arsenic (ppm)	0530	3.100	1.000	2.745	0.4981	0.4225	4	0.71	151.99	0
151	Acid Soluble Arsenic (ppm)	0527	3.216	0.0200	2.745	0.4981	0.4225	4	0.95	151.33	0
165	Acid Soluble Boron (%)	0389	0.0008	0.0002	0.0052	0.0085	0.0016	4	-0.52	165.30	0
165	Acid Soluble Boron (%)	0524	0.0009	0.0000	0.0052	0.0085	0.0016	4	-0.50	165.99	0
165	Acid Soluble Boron (%)	0521	0.0011	0.0000	0.0052	0.0085	0.0016	4	-0.48	165.30	0
165	Acid Soluble Boron (%)	0354	0.0180	0.0060	0.0052	0.0085	0.0016	4	1.50	165.30	0
181	Acid Soluble Cadmium (ppm)	0530	0.0100	0.0000	0.1825	0.2584	0.0024	5	-0.67	181.99	0
181	Acid Soluble Cadmium (ppm)	0524	0.0352	0.0010	0.1825	0.2584	0.0024	5	-0.57	181.30	0
181	Acid Soluble Cadmium (ppm)	0527	0.0425	0.0010	0.1825	0.2584	0.0024	5	-0.54	181.33	0
181	Acid Soluble Cadmium (ppm)	0220	0.2000	0.0000	0.1825	0.2584	0.0024	5	0.07	181.30	0
181	Acid Soluble Cadmium (ppm)	0389	0.6250	0.0100	0.1825	0.2584	0.0024	5	1.71	181.30	0
191	Acid Soluble Chromium (ppm)	0527	0.3945	0.0410	9.361	14.84	0.2353	4	-0.60	191.33	0
191	Acid Soluble Chromium (ppm)	0482	2.200	0.0000	9.361	14.84	0.2353	4	-0.48	191.30	0
191	Acid Soluble Chromium (ppm)	0220	3.300	0.0000	9.361	14.84	0.2353	4	-0.41	191.30	0
191	Acid Soluble Chromium (ppm)	0389	31.55	0.9000	9.361	14.84	0.2353	4	1.50	191.30	0
202	Acid Soluble Cobalt (ppm)	0527	0.0095	0.0010	4.818	9.289	0.4279	4	-0.52	202.33	0
202	Acid Soluble Cobalt (ppm)	0524	0.2120	0.0107	4.818	9.289	0.4279	4	-0.50	202.30	0
202	Acid Soluble Cobalt (ppm)	0220	0.3000	0.2000	4.818	9.289	0.4279	4	-0.49	202.30	0
202	Acid Soluble Cobalt (ppm)	0389	18.75	1.500	4.818	9.289	0.4279	4	1.50	202.30	0
221	Acid Soluble Copper (%)	0389	0.0002	0.0001	0.0012	0.0010	0.0004	3	-1.11	221.99	0
221	Acid Soluble Copper (%)	0354	0.0015	0.0010	0.0012	0.0010	0.0004	3	0.30	221.30	0
221	Acid Soluble Copper (%)	0530	0.0020	0.0000	0.0012	0.0010	0.0004	3	0.82	221.00	0
241	Acid Soluble Iron (0.1%)	0524	0.0003	0.0000	0.0014	0.0010	0.0002	22	-1.11	241.99	0
241	Acid Soluble Iron (0.1%)	0105	0.0004	0.0003	0.0014	0.0010	0.0002	22	-1.06	241.03	0
241	Acid Soluble Iron (0.1%)	0360	0.0006	0.0001	0.0014	0.0010	0.0002	22	-0.86	241.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
241	Acid Soluble Iron (0.1%)	0521	0.0006	0.0000	0.0014	0.0010	0.0002	22	-0.81	241.32	0
241	Acid Soluble Iron (0.1%)	0389	0.0006	0.0000	0.0014	0.0010	0.0002	22	-0.81	241.99	0
241	Acid Soluble Iron (0.1%)	0105	0.0008	0.0007	0.0014	0.0010	0.0002	22	-0.66	241.00	0
241	Acid Soluble Iron (0.1%)	0368	0.0009	0.0004	0.0014	0.0010	0.0002	22	-0.50	241.99	0
241	Acid Soluble Iron (0.1%)	0535	0.0010	0.0001	0.0014	0.0010	0.0002	22	-0.45	241.00	0
241	Acid Soluble Iron (0.1%)	0486	0.0010	0.0000	0.0014	0.0010	0.0002	22	-0.40	241.33	0
241	Acid Soluble Iron (0.1%)	0324	0.0011	0.0000	0.0014	0.0010	0.0002	22	-0.30	241.30	0
241	Acid Soluble Iron (0.1%)	0541	0.0011	0.0000	0.0014	0.0010	0.0002	22	-0.30	241.30	0
241	Acid Soluble Iron (0.1%)	0055	0.0011	0.0010	0.0014	0.0010	0.0002	22	-0.30	241.33	0
241	Acid Soluble Iron (0.1%)	0531	0.0012	0.0001	0.0014	0.0010	0.0002	22	-0.25	241.00	0
241	Acid Soluble Iron (0.1%)	0042	0.0013	0.0001	0.0014	0.0010	0.0002	22	-0.15	241.99	0
241	Acid Soluble Iron (0.1%)	0157	0.0015	0.0010	0.0014	0.0010	0.0002	22	0.10	241.30	0
241	Acid Soluble Iron (0.1%)	0035	0.0016	0.0004	0.0014	0.0010	0.0002	22	0.20	241.30	0
241	Acid Soluble Iron (0.1%)	0040	0.0020	0.0000	0.0014	0.0010	0.0002	22	0.60	241.00	0
241	Acid Soluble Iron (0.1%)	0476	0.0025	0.0001	0.0014	0.0010	0.0002	22	1.06	241.99	0
241	Acid Soluble Iron (0.1%)	0354	0.0050	0.0000	0.0014	0.0010	0.0002	22	3.63	241.30	0
241	Acid Soluble Iron (0.1%)	0530	0.01000†	0.0000	0.0014	0.0010	0.0002	22	8.67	241.00	0
241	Acid Soluble Iron (0.1%)	0234	0.01000†	0.0000	0.0014	0.0010	0.0002	22	8.67	241.30	0
241	Acid Soluble Iron (0.1%)	0043	0.01225†	0.0003	0.0014	0.0010	0.0002	22	10.94	241.00	0
241	Acid Soluble Iron (0.1%)	0518	0.1300†	0.0200	0.0014	0.0010	0.0002	22	129.63	241.20	2
241	Acid Soluble Iron (0.1%)	0114	0.0000	0.0000	0.0014	0.0010	0.0002	22		241.30	4
251	Acid Soluble Lead (ppm)	0527	0.0110	0.0020	1.775	2.712	0.1872	5	-0.65	251.33	0
251	Acid Soluble Lead (ppm)	0524	0.0407	0.0042	1.775	2.712	0.1872	5	-0.64	251.30	0
251	Acid Soluble Lead (ppm)	0220	0.5750	0.0300	1.775	2.712	0.1872	5	-0.44	251.30	0
251	Acid Soluble Lead (ppm)	0389	1.800	0.0000	1.775	2.712	0.1872	5	0.01	251.30	0
251	Acid Soluble Lead (ppm)	0530	6.450	0.9000	1.775	2.712	0.1872	5	1.72	251.99	0
261	Acid Soluble Manganese (%)	0354	0.0000	0.0000				0		261.30	4
281	Acid Soluble Mercury (ppm)	0527	0.0030	0.0040				2		281.30	0
281	Acid Soluble Mercury (ppm)	0530	0.0200	0.0000				2		281.99	0
289	Acid Soluble Molybdenum (ppm)	0524	0.2711	0.0369	1.194	1.543	0.0640	4	-0.60	289.30	0
289	Acid Soluble Molybdenum (ppm)	0527	0.4245	0.0190	1.194	1.543	0.0640	4	-0.50	289.33	0
289	Acid Soluble Molybdenum (ppm)	0521	0.5791	0.0000	1.194	1.543	0.0640	4	-0.40	289.30	0
289	Acid Soluble Molybdenum (ppm)	0389	3.500	0.2000	1.194	1.543	0.0640	4	1.50	289.30	0
291	Acid Soluble Nickel (ppm)	0524	0.2620	0.0425	3.035	5.720	0.1693	5	-0.48	291.30	0
291	Acid Soluble Nickel (ppm)	0527	0.2800	0.0040	3.035	5.720	0.1693	5	-0.48	291.33	0
291	Acid Soluble Nickel (ppm)	0521	0.3319	0.0000	3.035	5.720	0.1693	5	-0.47	291.30	0
291	Acid Soluble Nickel (ppm)	0220	1.050	0.3000	3.035	5.720	0.1693	5	-0.35	291.30	0
291	Acid Soluble Nickel (ppm)	0389	13.25	0.5000	3.035	5.720	0.1693	5	1.79	291.30	0
301	Acid Soluble Selenium (ppm)	0527	0.0425	0.0130				1		301.33	0
311	Sodium (%)	0527	0.0800	0.0000	0.1039	0.0442	0.0100	5	-0.54	311.33	0
311	Sodium (%)	0482	0.0800	0.0000	0.1039	0.0442	0.0100	5	-0.54	311.99	0
311	Sodium (%)	0423	0.0855	0.0010	0.1039	0.0442	0.0100	5	-0.42	311.33	0
311	Sodium (%)	0521	0.0915	0.0000	0.1039	0.0442	0.0100	5	-0.28	311.32	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
311	Sodium (%)	0354	0.1825	0.0490	0.1039	0.0442	0.0100	5	1.78	311.99	0
321	Acid Soluble Zinc (0.1%)	0535	0.0003	0.0001	0.0010	0.0009	0.0002	23	-0.86	321.00	0
321	Acid Soluble Zinc (0.1%)	0105	0.0003	0.0003	0.0010	0.0009	0.0002	23	-0.86	321.03	0
321	Acid Soluble Zinc (0.1%)	0055	0.0003	0.0001	0.0010	0.0009	0.0002	23	-0.86	321.33	0
321	Acid Soluble Zinc (0.1%)	0524	0.0003	0.0001	0.0010	0.0009	0.0002	23	-0.86	321.99	0
321	Acid Soluble Zinc (0.1%)	0389	0.0003	0.0000	0.0010	0.0009	0.0002	23	-0.80	321.99	0
321	Acid Soluble Zinc (0.1%)	0360	0.0004	0.0002	0.0010	0.0009	0.0002	23	-0.68	321.30	0
321	Acid Soluble Zinc (0.1%)	0105	0.0004	0.0000	0.0010	0.0009	0.0002	23	-0.68	321.00	0
321	Acid Soluble Zinc (0.1%)	0368	0.0004	0.0000	0.0010	0.0009	0.0002	23	-0.68	321.99	0
321	Acid Soluble Zinc (0.1%)	0476	0.0004	0.0000	0.0010	0.0009	0.0002	23	-0.68	321.99	0
321	Acid Soluble Zinc (0.1%)	0072	0.0006	0.0001	0.0010	0.0009	0.0002	23	-0.51	321.33	0
321	Acid Soluble Zinc (0.1%)	0521	0.0006	0.0000	0.0010	0.0009	0.0002	23	-0.45	321.32	0
321	Acid Soluble Zinc (0.1%)	0531	0.0008	0.0001	0.0010	0.0009	0.0002	23	-0.28	321.00	0
321	Acid Soluble Zinc (0.1%)	0040	0.0009	0.0003	0.0010	0.0009	0.0002	23	-0.17	321.00	0
321	Acid Soluble Zinc (0.1%)	0220	0.0009	0.0003	0.0010	0.0009	0.0002	23	-0.17	321.33	0
321	Acid Soluble Zinc (0.1%)	0540	0.0011	0.0002	0.0010	0.0009	0.0002	23	0.12	321.00	0
321	Acid Soluble Zinc (0.1%)	0324	0.0011	0.0010	0.0010	0.0009	0.0002	23	0.12	321.30	0
321	Acid Soluble Zinc (0.1%)	0042	0.0014	0.0001	0.0010	0.0009	0.0002	23	0.41	321.99	0
321	Acid Soluble Zinc (0.1%)	0035	0.0017	0.0001	0.0010	0.0009	0.0002	23	0.75	321.30	0
321	Acid Soluble Zinc (0.1%)	0354	0.0020	0.0000	0.0010	0.0009	0.0002	23	1.15	321.30	0
321	Acid Soluble Zinc (0.1%)	0533	0.0026	0.0003	0.0010	0.0009	0.0002	23	1.78	321.00	0
321	Acid Soluble Zinc (0.1%)	0541	0.0032	0.0011	0.0010	0.0009	0.0002	23	2.47	321.30	0
321	Acid Soluble Zinc (0.1%)	0043	0.00745†	0.0003	0.0010	0.0009	0.0002	23	7.39	321.00	0
321	Acid Soluble Zinc (0.1%)	0530	0.01000†	0.0000	0.0010	0.0009	0.0002	23	10.32	321.00	0
321	Acid Soluble Zinc (0.1%)	0428	0.1343†	0.0137	0.0010	0.0009	0.0002	23	152.69	321.00	2
321	Acid Soluble Zinc (0.1%)	0114	0.0000	0.0000	0.0010	0.0009	0.0002	23		321.30	4
321	Acid Soluble Zinc (0.1%)	0157	0.0000	0.0000	0.0010	0.0009	0.0002	23		321.30	4
325	Water Soluble Zinc (%)	0535	0.0002	0.0000	0.0004	0.0003	0.0000	3	-0.58	325.00	0
325	Water Soluble Zinc (%)	0539	0.0002	0.0000	0.0004	0.0003	0.0000	3	-0.58	325.00	0
325	Water Soluble Zinc (%)	0540	0.0008	0.0001	0.0004	0.0003	0.0000	3	1.15	325.00	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 submitted. A 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 included for information only (Grey). An offset value indicates lower with an astrix or higher with a Dagger than the Analyte value less or plus the IA respectively. Method or Analyte codes in light green indicate a guaranteed analyte. Individual lab values may be below detection limits but are reported solely for the purpose of this Proficiency Testing program.

# magruder fertilizer

## check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

### Analyte Proficiency From All Labs

Sample # 170611

Grade 2-15-15 w/PO3

Zero Range 75

Method Group	Analyte Analyte (Units)	Lab Code	Lab Data		Method Values				Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar	# Labs			
010	Total Nitrogen (2%)	0007	2.750†	0.1000	2.094	0.1521	0.0386	80	4.31	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0007	15.25†	0.3000	13.51	1.526	0.1224	49	1.14	041.50	0
050	Soluble Potassium as K2O (15%)	0007	17.95	0.5000	17.49	0.8170	0.1894	87	0.56	050.51	0
010	Total Nitrogen (2%)	0018	1.665	0.0500	2.094	0.1521	0.0386	80	-2.82	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0018	12.60*	0 Range	13.51	1.526	0.1224	49	-0.60	041.40	0
050	Soluble Potassium as K2O (15%)	0018	18.55†	0.1000	17.49	0.8170	0.1894	87	1.30	050.62	0
010	Total Nitrogen (2%)	0025	2.637†	0.0350	2.094	0.1521	0.0386	80	3.56	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0025	15.32†	0.0300	13.51	1.526	0.1224	49	1.18	041.51	0
050	Soluble Potassium as K2O (15%)	0025	17.70	0.1500	17.49	0.8170	0.1894	87	0.25	050.52	0
001	Ammoniacal Nitrogen (%)	0027	0.4800	0 Range	0.5315	0.0907	0.0246	28	-0.57	001.99	0
005	Urea Nitrogen (%)	0027	1.560	0.0200	1.701	0.1687	0.0521	13	-0.83	005.99	0
010	Total Nitrogen (2%)	0027	2.070	0.0200	2.094	0.1521	0.0386	80	-0.16	010.60	0
020	Total Phosphorus as P2O5 (%)	0027	14.56	0 Range	15.15	0.6201	0.1897	57	-0.94	020.20	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0027	11.80*	0.0500	13.51	1.526	0.1224	49	-1.13	041.20	0
050	Soluble Potassium as K2O (15%)	0027	18.48	0.0100	17.49	0.8170	0.1894	87	1.21	050.99	0
010	Total Nitrogen (2%)	0029	2.133	0.0300	2.094	0.1521	0.0386	80	0.25	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0029	11.87*	0.0600	13.51	1.526	0.1224	49	-1.08	041.60	0
050	Soluble Potassium as K2O (15%)	0029	17.47	0.0400	17.49	0.8170	0.1894	87	-0.02	050.62	0
010	Total Nitrogen (2%)	0034	2.061	0.0090	2.094	0.1521	0.0386	80	-0.22	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0034	12.57*	0.3440	13.51	1.526	0.1224	49	-0.62	041.60	0
050	Soluble Potassium as K2O (15%)	0034	17.30	0.2820	17.49	0.8170	0.1894	87	-0.24	050.62	0
010	Total Nitrogen (2%)	0035	2.070	0.0400	2.094	0.1521	0.0386	80	-0.16	010.60	0
020	Total Phosphorus as P2O5 (%)	0035	13.98	1.650	15.15	0.6201	0.1897	57	-1.89	020.40	1
050	Soluble Potassium as K2O (15%)	0035	18.03	0.1800	17.49	0.8170	0.1894	87	0.66	050.61	0
241	Acid Soluble Iron (0.1%)	0035	0.0016	0.0004	0.0014	0.0010	0.0002	22	0.20	241.30	0
321	Acid Soluble Zinc (0.1%)	0035	0.0017	0.0001	0.0010	0.0009	0.0002	23	0.75	321.30	0
010	Total Nitrogen (2%)	0037	2.181	0.0750	2.094	0.1521	0.0386	80	0.57	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0037	12.38*	0.0890	13.51	1.526	0.1224	49	-0.74	041.60	0
050	Soluble Potassium as K2O (15%)	0037	17.75	0.0460	17.49	0.8170	0.1894	87	0.32	050.62	0
010	Total Nitrogen (2%)	0040	2.250	0.1000	2.094	0.1521	0.0386	80	1.02	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0040	12.40*	0 Range	13.51	1.526	0.1224	49	-0.73	041.10	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0040	15.00†	0 Range	13.51	1.526	0.1224	49	0.97	041.51	0
050	Soluble Potassium as K2O (15%)	0040	17.55	0.3000	17.49	0.8170	0.1894	87	0.07	050.30	0
241	Acid Soluble Iron (0.1%)	0040	0.0020	0 Range	0.0014	0.0010	0.0002	22	0.60	241.00	0
321	Acid Soluble Zinc (0.1%)	0040	0.0009	0.0003	0.0010	0.0009	0.0002	23	-0.17	321.00	0
010	Total Nitrogen (2%)	0041	1.970	0.0600	2.094	0.1521	0.0386	80	-0.82	010.60	0

Method Group	Analyte Analyte (Units)	Lab Code	Lab Data		Method Values				Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar	# Labs			
050	Soluble Potassium as K2O (15%)	0041	17.14	0.0300	17.49	0.8170	0.1894	87	-0.44	050.60	0
010	Total Nitrogen (2%)	0042	1.925	0.1300	2.094	0.1521	0.0386	80	-1.11	010.60	0
020	Total Phosphorus as P2O5 (%)	0042	15.38	1.430	15.15	0.6201	0.1897	57	0.37	020.50	1
050	Soluble Potassium as K2O (15%)	0042	16.46*	0.7200	17.49	0.8170	0.1894	87	-1.26	050.99	0
241	Acid Soluble Iron (0.1%)	0042	0.0013	0.0001	0.0014	0.0010	0.0002	22	-0.15	241.99	0
321	Acid Soluble Zinc (0.1%)	0042	0.0014	0.0001	0.0010	0.0009	0.0002	23	0.41	321.99	0
010	Total Nitrogen (2%)	0043	1.875	0.0100	2.094	0.1521	0.0386	80	-1.44	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0043	12.35*	0.0100	13.51	1.526	0.1224	49	-0.77	041.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0043	14.98†	0.0400	13.51	1.526	0.1224	49	0.96	041.50	0
050	Soluble Potassium as K2O (15%)	0043	17.34	0.1300	17.49	0.8170	0.1894	87	-0.19	050.51	0
050	Soluble Potassium as K2O (15%)	0043	17.73	0.0900	17.49	0.8170	0.1894	87	0.29	050.99	0
241	Acid Soluble Iron (0.1%)	0043	0.01225†	0.0003	0.0014	0.0010	0.0002	22	10.94	241.00	0
321	Acid Soluble Zinc (0.1%)	0043	0.00745†	0.0003	0.0010	0.0009	0.0002	23	7.39	321.00	0
010	Total Nitrogen (2%)	0049	2.170	0.0200	2.094	0.1521	0.0386	80	0.50	010.60	0
020	Total Phosphorus as P2O5 (%)	0049	15.32	0.1300	15.15	0.6201	0.1897	57	0.27	020.10	0
050	Soluble Potassium as K2O (15%)	0049	17.95	0.2700	17.49	0.8170	0.1894	87	0.56	050.00	0
010	Total Nitrogen (2%)	0055	1.885	0.0700	2.094	0.1521	0.0386	80	-1.38	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0055	12.39*	0.1200	13.51	1.526	0.1224	49	-0.74	041.10	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0055	12.40*	0.0700	13.51	1.526	0.1224	49	-0.73	041.60	0
050	Soluble Potassium as K2O (15%)	0055	17.88	0.0600	17.49	0.8170	0.1894	87	0.48	050.50	0
050	Soluble Potassium as K2O (15%)	0055	18.74†	0.1900	17.49	0.8170	0.1894	87	1.52	050.00	0
241	Acid Soluble Iron (0.1%)	0055	0.0011	0.0010	0.0014	0.0010	0.0002	22	-0.30	241.33	0
321	Acid Soluble Zinc (0.1%)	0055	0.0003	0.0001	0.0010	0.0009	0.0002	23	-0.86	321.33	0
010	Total Nitrogen (2%)	0070	2.075	0.2700	2.094	0.1521	0.0386	80	-0.13	010.60	1
041	Direct Available Phosphorus as P2O5 (15.2%)	0070	14.69†	0.3400	13.51	1.526	0.1224	49	0.77	041.50	0
050	Soluble Potassium as K2O (15%)	0070	17.60	0.4000	17.49	0.8170	0.1894	87	0.13	050.51	0
010	Total Nitrogen (2%)	0072	1.970	0.1000	2.094	0.1521	0.0386	80	-0.82	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0072	12.68*	0.0320	13.51	1.526	0.1224	49	-0.55	041.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0072	14.88†	0.0800	13.51	1.526	0.1224	49	0.90	041.51	0
050	Soluble Potassium as K2O (15%)	0072	17.41	0.0110	17.49	0.8170	0.1894	87	-0.09	050.00	0
050	Soluble Potassium as K2O (15%)	0072	18.19	0.0600	17.49	0.8170	0.1894	87	0.86	050.52	0
321	Acid Soluble Zinc (0.1%)	0072	0.0006	0.0001	0.0010	0.0009	0.0002	23	-0.51	321.33	0
010	Total Nitrogen (2%)	0073	2.065	0.0500	2.094	0.1521	0.0386	80	-0.19	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0073	13.64	0.6700	13.51	1.526	0.1224	49	0.08	041.60	1
050	Soluble Potassium as K2O (15%)	0073	17.61	0.1600	17.49	0.8170	0.1894	87	0.15	050.30	0
010	Total Nitrogen (2%)	0086	2.171	0.0166	2.094	0.1521	0.0386	80	0.51	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0086	11.88*	0.3994	13.51	1.526	0.1224	49	-1.07	041.10	0
001	Ammoniacal Nitrogen (%)	0090	0.5550	0.0500	0.5315	0.0907	0.0246	28	0.26	001.10	0
010	Total Nitrogen (2%)	0090	2.085	0.0900	2.094	0.1521	0.0386	80	-0.06	010.11	0
020	Total Phosphorus as P2O5 (%)	0090	15.39	0.0100	15.15	0.6201	0.1897	57	0.39	020.10	0
050	Soluble Potassium as K2O (15%)	0090	18.35	0.0200	17.49	0.8170	0.1894	87	1.05	050.00	0
010	Total Nitrogen (2%)	0095	1.820	0.0400	2.094	0.1521	0.0386	80	-1.80	010.60	0
001	Ammoniacal Nitrogen (%)	0096	0.5000	0 Range	0.5315	0.0907	0.0246	28	-0.35	001.99	0
020	Total Phosphorus as P2O5 (%)	0096	12.27	0.0100	15.15	0.6201	0.1897	57	-4.64	020.40	0
050	Soluble Potassium as K2O (15%)	0096	17.78	0.5900	17.49	0.8170	0.1894	87	0.35	050.99	0
010	Total Nitrogen (2%)	0105	2.053	0.0680	2.094	0.1521	0.0386	80	-0.27	010.60	0
010	Total Nitrogen (2%)	0105	2.100	0.0200	2.094	0.1521	0.0386	80	0.04	010.11	0

Method Group	Analyte Analyte (Units)	Lab Code	Lab Data		Method Values				Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar	# Labs			
020	Total Phosphorus as P2O5 (%)	0105	15.08	0 Range	15.15	0.6201	0.1897	57	-0.11	020.40	0
020	Total Phosphorus as P2O5 (%)	0105	15.20	0.1300	15.15	0.6201	0.1897	57	0.08	020.10	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0105	12.30*	0.0700	13.51	1.526	0.1224	49	-0.80	041.10	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0105	12.33*	0.1000	13.51	1.526	0.1224	49	-0.78	041.60	0
050	Soluble Potassium as K2O (15%)	0105	17.67	0.0900	17.49	0.8170	0.1894	87	0.21	050.60	0
050	Soluble Potassium as K2O (15%)	0105	17.76	0.1600	17.49	0.8170	0.1894	87	0.33	050.62	0
101	Acid Soluble Calcium (%)	0105	0.0015	0 Range	0.0087	0.0123	0.0015	4	-0.59	101.00	0
101	Acid Soluble Calcium (%)	0105	0.0019	0.0010	0.0087	0.0123	0.0015	4	-0.56	101.03	0
121	Acid Soluble Magnesium (%)	0105	0.0005	0.0001	0.0011	0.0008	0.0002	8	-0.74	121.00	0
121	Acid Soluble Magnesium (%)	0105	0.0009	0.0009	0.0011	0.0008	0.0002	8	-0.26	121.03	0
241	Acid Soluble Iron (0.1%)	0105	0.0004	0.0003	0.0014	0.0010	0.0002	22	-1.06	241.03	0
241	Acid Soluble Iron (0.1%)	0105	0.0008	0.0007	0.0014	0.0010	0.0002	22	-0.66	241.00	0
321	Acid Soluble Zinc (0.1%)	0105	0.0003	0.0003	0.0010	0.0009	0.0002	23	-0.86	321.03	0
321	Acid Soluble Zinc (0.1%)	0105	0.0004	0 Range	0.0010	0.0009	0.0002	23	-0.68	321.00	0
010	Total Nitrogen (2%)	0106	1.730	0 Range	2.094	0.1521	0.0386	80	-2.40	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0106	15.42†	0.4300	13.51	1.526	0.1224	49	1.25	041.21	0
050	Soluble Potassium as K2O (15%)	0106	17.40	0.0900	17.49	0.8170	0.1894	87	-0.12	050.50	0
010	Total Nitrogen (2%)	0114	2.140	0.0200	2.094	0.1521	0.0386	80	0.30	010.11	0
020	Total Phosphorus as P2O5 (%)	0114	15.69	0.3300	15.15	0.6201	0.1897	57	0.87	020.10	0
050	Soluble Potassium as K2O (15%)	0114	16.12*	0.1000	17.49	0.8170	0.1894	87	-1.68	050.00	0
241	Acid Soluble Iron (0.1%)	0114	0.0000	0 Range	0.0014	0.0010	0.0002	22		241.30	4
321	Acid Soluble Zinc (0.1%)	0114	0.0000	0 Range	0.0010	0.0009	0.0002	23		321.30	4
001	Ammoniacal Nitrogen (%)	0117	0.4850	0.0100	0.5315	0.0907	0.0246	28	-0.51	001.10	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0117	12.84	0.1700	13.51	1.526	0.1224	49	-0.44	041.11	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0117	15.28†	0.2300	13.51	1.526	0.1224	49	1.15	041.51	0
050	Soluble Potassium as K2O (15%)	0117	17.76	0.4000	17.49	0.8170	0.1894	87	0.33	050.52	0
010	Total Nitrogen (2%)	0131	2.180	0.0200	2.094	0.1521	0.0386	80	0.56	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0131	14.82†	0.1700	13.51	1.526	0.1224	49	0.85	041.40	0
010	Total Nitrogen (2%)	0136	2.160	0.0600	2.094	0.1521	0.0386	80	0.43	010.60	0
020	Total Phosphorus as P2O5 (%)	0136	15.37	0.0200	15.15	0.6201	0.1897	57	0.36	020.10	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0136	12.49*	0.0300	13.51	1.526	0.1224	49	-0.67	041.60	0
050	Soluble Potassium as K2O (15%)	0136	17.72	0.0500	17.49	0.8170	0.1894	87	0.27	050.30	0
010	Total Nitrogen (2%)	0137	2.070	0.0600	2.094	0.1521	0.0386	80	-0.16	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0137	14.60†	0.0700	13.51	1.526	0.1224	49	0.71	041.50	0
050	Soluble Potassium as K2O (15%)	0137	17.70	0.0400	17.49	0.8170	0.1894	87	0.26	050.52	0
010	Total Nitrogen (2%)	0157	2.195	0.0100	2.094	0.1521	0.0386	80	0.66	010.60	0
020	Total Phosphorus as P2O5 (%)	0157	15.20	0 Range	15.15	0.6201	0.1897	57	0.09	020.50	0
020	Total Phosphorus as P2O5 (%)	0157	15.40	0.2000	15.15	0.6201	0.1897	57	0.41	020.10	0
050	Soluble Potassium as K2O (15%)	0157	17.95	0.1000	17.49	0.8170	0.1894	87	0.56	050.50	0
050	Soluble Potassium as K2O (15%)	0157	18.85†	0.3000	17.49	0.8170	0.1894	87	1.66	050.30	0
241	Acid Soluble Iron (0.1%)	0157	0.0015	0.0010	0.0014	0.0010	0.0002	22	0.10	241.30	0
321	Acid Soluble Zinc (0.1%)	0157	0.0000	0 Range	0.0010	0.0009	0.0002	23		321.30	4
020	Total Phosphorus as P2O5 (%)	0169	12.37	0.0600	15.15	0.6201	0.1897	57	-4.48	020.20	0
050	Soluble Potassium as K2O (15%)	0169	17.76	0.0400	17.49	0.8170	0.1894	87	0.33	050.60	0
010	Total Nitrogen (2%)	0185	2.060	0 Range	2.094	0.1521	0.0386	80	-0.23	010.12	0
050	Soluble Potassium as K2O (15%)	0185	17.17	0.1400	17.49	0.8170	0.1894	87	-0.39	050.32	0
001	Ammoniacal Nitrogen (%)	0220	0.6450	0.0100	0.5315	0.0907	0.0246	28	1.25	001.99	0

Method Group	Analyte Analyte (Units)	Lab Code	Lab Data		Method Values				Magruder CS Z Score	Your Method	Flag
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007	Urea (%)	0220	1.565	0.0700	1.522	0.0513	0.0700	3	0.84	007.99	0
010	Total Nitrogen (2%)	0220	2.200	0.0200	2.094	0.1521	0.0386	80	0.69	010.99	0
020	Total Phosphorus as P2O5 (%)	0220	15.17	0.0200	15.15	0.6201	0.1897	57	0.04	020.20	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0220	12.40*	0.0900	13.51	1.526	0.1224	49	-0.73	041.11	0
050	Soluble Potassium as K2O (15%)	0220	17.37	0.1000	17.49	0.8170	0.1894	87	-0.15	050.00	0
151	Acid Soluble Arsenic (ppm)	0220	2.500	0.6000	2.745	0.4981	0.4225	4	-0.49	151.30	0
181	Acid Soluble Cadmium (ppm)	0220	0.2000	0 Range	0.1825	0.2584	0.0024	5	0.07	181.30	0
191	Acid Soluble Chromium (ppm)	0220	3.300	0 Range	9.361	14.84	0.2353	4	-0.41	191.30	0
202	Acid Soluble Cobalt (ppm)	0220	0.3000	0.2000	4.818	9.289	0.4279	4	-0.49	202.30	0
251	Acid Soluble Lead (ppm)	0220	0.5750	0.0300	1.775	2.712	0.1872	5	-0.44	251.30	0
291	Acid Soluble Nickel (ppm)	0220	1.050	0.3000	3.035	5.720	0.1693	5	-0.35	291.30	0
321	Acid Soluble Zinc (0.1%)	0220	0.0009	0.0003	0.0010	0.0009	0.0002	23	-0.17	321.33	0
001	Ammoniacal Nitrogen (%)	0230	0.5500	0.0400	0.5315	0.0907	0.0246	28	0.20	001.10	0
005	Urea Nitrogen (%)	0230	1.765	0.0500	1.701	0.1687	0.0521	13	0.38	005.00	0
010	Total Nitrogen (2%)	0230	2.270	0.0600	2.094	0.1521	0.0386	80	1.16	010.60	0
020	Total Phosphorus as P2O5 (%)	0230	14.30	0.2000	15.15	0.6201	0.1897	57	-1.36	020.20	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0230	13.25	0.1000	13.51	1.526	0.1224	49	-0.17	041.60	0
050	Soluble Potassium as K2O (15%)	0230	15.35*	0.1000	17.49	0.8170	0.1894	87	-2.62	050.50	0
001	Ammoniacal Nitrogen (%)	0231	0.4600	0.0200	0.5315	0.0907	0.0246	28	-0.79	001.99	0
010	Total Nitrogen (2%)	0231	1.955	0.0100	2.094	0.1521	0.0386	80	-0.92	010.60	0
020	Total Phosphorus as P2O5 (%)	0231	15.26	0.0200	15.15	0.6201	0.1897	57	0.19	020.20	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0231	15.14†	0.0700	13.51	1.526	0.1224	49	1.06	041.21	0
050	Soluble Potassium as K2O (15%)	0231	17.64	0.0600	17.49	0.8170	0.1894	87	0.18	050.00	0
010	Total Nitrogen (2%)	0233	2.074	0.0010	2.094	0.1521	0.0386	80	-0.14	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0233	15.19†	0.2800	13.51	1.526	0.1224	49	1.10	041.50	0
050	Soluble Potassium as K2O (15%)	0233	17.33	0.3700	17.49	0.8170	0.1894	87	-0.20	050.52	0
001	Ammoniacal Nitrogen (%)	0234	0.6950	0.2700	0.5315	0.0907	0.0246	28	1.80	001.10	1
005	Urea Nitrogen (%)	0234	1.470	0.4000	1.701	0.1687	0.0521	13	-1.37	005.99	1
010	Total Nitrogen (2%)	0234	2.115	0.0100	2.094	0.1521	0.0386	80	0.14	010.60	0
020	Total Phosphorus as P2O5 (%)	0234	16.95	0.2500	15.15	0.6201	0.1897	57	2.90	020.50	0
050	Soluble Potassium as K2O (15%)	0234	17.81	0.0200	17.49	0.8170	0.1894	87	0.39	050.99	0
241	Acid Soluble Iron (0.1%)	0234	0.01000†	0 Range	0.0014	0.0010	0.0002	22	8.67	241.30	0
010	Total Nitrogen (2%)	0291	2.315	0.0100	2.094	0.1521	0.0386	80	1.45	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0291	15.40†	0.0300	13.51	1.526	0.1224	49	1.23	041.50	0
050	Soluble Potassium as K2O (15%)	0291	18.01	0.0100	17.49	0.8170	0.1894	87	0.63	050.51	0
010	Total Nitrogen (2%)	0292	2.090	0 Range	2.094	0.1521	0.0386	80	-0.03	010.60	0
020	Total Phosphorus as P2O5 (%)	0292	15.07	0.1000	15.15	0.6201	0.1897	57	-0.12	020.20	0
050	Soluble Potassium as K2O (15%)	0292	17.52	0.0200	17.49	0.8170	0.1894	87	0.04	050.50	0
020	Total Phosphorus as P2O5 (%)	0300	31.99	0.3600	15.15	0.6201	0.1897	57	27.16	020.20	2
050	Soluble Potassium as K2O (15%)	0300	18.80†	0.0200	17.49	0.8170	0.1894	87	1.60	050.99	0
010	Total Nitrogen (2%)	0307	2.009	0.0170	2.094	0.1521	0.0386	80	-0.56	010.60	0
020	Total Phosphorus as P2O5 (%)	0307	17.09	1.113	15.15	0.6201	0.1897	57	3.13	020.99	0
050	Soluble Potassium as K2O (15%)	0307	17.80	0.3200	17.49	0.8170	0.1894	87	0.38	050.99	0
001	Ammoniacal Nitrogen (%)	0309	0.4500	0.0400	0.5315	0.0907	0.0246	28	-0.90	001.10	0
005	Urea Nitrogen (%)	0309	1.775	0.0100	1.701	0.1687	0.0521	13	0.44	005.99	0
010	Total Nitrogen (2%)	0309	2.280	0.1400	2.094	0.1521	0.0386	80	1.22	010.11	0
020	Total Phosphorus as P2O5 (%)	0309	14.43	0.0100	15.15	0.6201	0.1897	57	-1.16	020.20	0

Method Group	Analyte Analyte (Units)	Lab Code	Lab Data		Method Values				Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar	# Labs			
048	Water Soluble Phosphorus as P2O5 (%)	0309	14.22	0.0300				2		048.20	0
050	Soluble Potassium as K2O (15%)	0309	15.58*	0.1000	17.49	0.8170	0.1894	87	-2.34	050.30	0
121	Acid Soluble Magnesium (%)	0309	0.0850	0.0100	0.0011	0.0008	0.0002	8	101.79	121.00	1
010	Total Nitrogen (2%)	0324	2.205	0.0300	2.094	0.1521	0.0386	80	0.73	010.60	0
020	Total Phosphorus as P2O5 (%)	0324	13.40	0 Range	15.15	0.6201	0.1897	57	-2.81	020.20	0
050	Soluble Potassium as K2O (15%)	0324	19.30†	0.8000	17.49	0.8170	0.1894	87	2.21	050.50	0
241	Acid Soluble Iron (0.1%)	0324	0.0011	0 Range	0.0014	0.0010	0.0002	22	-0.30	241.30	0
321	Acid Soluble Zinc (0.1%)	0324	0.0011	0.0010	0.0010	0.0009	0.0002	23	0.12	321.30	0
010	Total Nitrogen (2%)	0325	2.345	0.0100	2.094	0.1521	0.0386	80	1.65	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0325	15.10†	0.4000	13.51	1.526	0.1224	49	1.04	041.50	0
050	Soluble Potassium as K2O (15%)	0325	18.00	0.2000	17.49	0.8170	0.1894	87	0.62	050.99	0
010	Total Nitrogen (2%)	0354	2.140	0.0050	2.094	0.1521	0.0386	80	0.30	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0354	15.09†	0.0240	13.51	1.526	0.1224	49	1.04	041.60	0
050	Soluble Potassium as K2O (15%)	0354	16.71	0.1130	17.49	0.8170	0.1894	87	-0.95	050.52	0
101	Acid Soluble Calcium (%)	0354	0.0270	0.0040	0.0087	0.0123	0.0015	4	1.49	101.30	0
121	Acid Soluble Magnesium (%)	0354	0.0110	0 Range	0.0011	0.0008	0.0002	8	12.05	121.30	0
148	Total Sulfur (%)	0354	0.0285	0.0030				1		148.99	0
165	Acid Soluble Boron (%)	0354	0.0180	0.0060	0.0052	0.0085	0.0016	4	1.50	165.30	0
221	Acid Soluble Copper (%)	0354	0.0015	0.0010	0.0012	0.0010	0.0004	3	0.30	221.30	0
241	Acid Soluble Iron (0.1%)	0354	0.0050	0 Range	0.0014	0.0010	0.0002	22	3.63	241.30	0
261	Acid Soluble Manganese (%)	0354	0.0000	0 Range				0		261.30	4
311	Sodium (%)	0354	0.1825	0.0490	0.1039	0.0442	0.0100	5	1.78	311.99	0
321	Acid Soluble Zinc (0.1%)	0354	0.0020	0 Range	0.0010	0.0009	0.0002	23	1.15	321.30	0
005	Urea Nitrogen (%)	0356	1.670	0.0400	1.701	0.1687	0.0521	13	-0.18	005.99	0
010	Total Nitrogen (2%)	0356	2.195	0.0100	2.094	0.1521	0.0386	80	0.66	010.60	0
020	Total Phosphorus as P2O5 (%)	0356	15.27	0.3400	15.15	0.6201	0.1897	57	0.20	020.20	0
050	Soluble Potassium as K2O (15%)	0356	17.54	0.4500	17.49	0.8170	0.1894	87	0.05	050.30	0
010	Total Nitrogen (2%)	0360	2.740†	0.1200	2.094	0.1521	0.0386	80	4.25	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0360	15.05†	0.3200	13.51	1.526	0.1224	49	1.01	041.51	0
050	Soluble Potassium as K2O (15%)	0360	17.73	0.2300	17.49	0.8170	0.1894	87	0.29	050.52	0
241	Acid Soluble Iron (0.1%)	0360	0.0006	0.0001	0.0014	0.0010	0.0002	22	-0.86	241.30	0
321	Acid Soluble Zinc (0.1%)	0360	0.0004	0.0002	0.0010	0.0009	0.0002	23	-0.68	321.30	0
001	Ammoniacal Nitrogen (%)	0368	0.4527	0.0006	0.5315	0.0907	0.0246	28	-0.87	001.99	0
005	Urea Nitrogen (%)	0368	1.795	0.0078	1.701	0.1687	0.0521	13	0.56	005.00	0
010	Total Nitrogen (2%)	0368	2.339	0.1180	2.094	0.1521	0.0386	80	1.61	010.60	0
020	Total Phosphorus as P2O5 (%)	0368	15.35	0.2465	15.15	0.6201	0.1897	57	0.33	020.50	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0368	15.15†	0.1100	13.51	1.526	0.1224	49	1.07	041.50	0
050	Soluble Potassium as K2O (15%)	0368	17.89	0.0043	17.49	0.8170	0.1894	87	0.48	050.99	0
241	Acid Soluble Iron (0.1%)	0368	0.0009	0.0004	0.0014	0.0010	0.0002	22	-0.50	241.99	0
321	Acid Soluble Zinc (0.1%)	0368	0.0004	0 Range	0.0010	0.0009	0.0002	23	-0.68	321.99	0
010	Total Nitrogen (2%)	0371	2.075	0.0100	2.094	0.1521	0.0386	80	-0.13	010.11	0
050	Soluble Potassium as K2O (15%)	0371	17.80	0.6000	17.49	0.8170	0.1894	87	0.38	050.99	0
010	Total Nitrogen (2%)	0377	2.175	0.0500	2.094	0.1521	0.0386	80	0.53	010.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0377	15.19†	0.2300	13.51	1.526	0.1224	49	1.10	041.51	0
050	Soluble Potassium as K2O (15%)	0377	17.56	0.1600	17.49	0.8170	0.1894	87	0.09	050.52	0
001	Ammoniacal Nitrogen (%)	0389	0.5150	0.0100	0.5315	0.0907	0.0246	28	-0.18	001.10	0
005	Urea Nitrogen (%)	0389	1.655	0.0100	1.701	0.1687	0.0521	13	-0.27	005.00	0



Method Group	Analyte Analyte (Units)	Lab Code	Lab Data		Method Values				Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar	# Labs			
010	Total Nitrogen (2%)	0389	1.870	0.1000	2.094	0.1521	0.0386	80	-1.47	010.60	0
020	Total Phosphorus as P2O5 (%)	0389	15.40	0.2100	15.15	0.6201	0.1897	57	0.40	020.50	0
050	Soluble Potassium as K2O (15%)	0389	17.48	0.0500	17.49	0.8170	0.1894	87	-0.02	050.99	0
101	Acid Soluble Calcium (%)	0389	0.0045	0.0010	0.0087	0.0123	0.0015	4	-0.34	101.99	0
121	Acid Soluble Magnesium (%)	0389	0.0008	0.0002	0.0011	0.0008	0.0002	8	-0.32	121.99	0
143	Elemental Sulfur (%)	0389	0.0025	0.0010				1		143.99	0
165	Acid Soluble Boron (%)	0389	0.0008	0.0002	0.0052	0.0085	0.0016	4	-0.52	165.30	0
181	Acid Soluble Cadmium (ppm)	0389	0.6250	0.0100	0.1825	0.2584	0.0024	5	1.71	181.30	0
191	Acid Soluble Chromium (ppm)	0389	31.55	0.9000	9.361	14.84	0.2353	4	1.50	191.30	0
202	Acid Soluble Cobalt (ppm)	0389	18.75	1.500	4.818	9.289	0.4279	4	1.50	202.30	0
221	Acid Soluble Copper (%)	0389	0.0002	0.0001	0.0012	0.0010	0.0004	3	-1.11	221.99	0
241	Acid Soluble Iron (0.1%)	0389	0.0006	0 Range	0.0014	0.0010	0.0002	22	-0.81	241.99	0
251	Acid Soluble Lead (ppm)	0389	1.800	0 Range	1.775	2.712	0.1872	5	0.01	251.30	0
289	Acid Soluble Molybdenum (ppm)	0389	3.500	0.2000	1.194	1.543	0.0640	4	1.50	289.30	0
291	Acid Soluble Nickel (ppm)	0389	13.25	0.5000	3.035	5.720	0.1693	5	1.79	291.30	0
321	Acid Soluble Zinc (0.1%)	0389	0.0003	0 Range	0.0010	0.0009	0.0002	23	-0.80	321.99	0
010	Total Nitrogen (2%)	0416	2.125	0.0100	2.094	0.1521	0.0386	80	0.20	010.11	0
020	Total Phosphorus as P2O5 (%)	0416	14.71	0.0100	15.15	0.6201	0.1897	57	-0.71	020.20	0
050	Soluble Potassium as K2O (15%)	0416	17.61	0.0100	17.49	0.8170	0.1894	87	0.14	050.00	0
010	Total Nitrogen (2%)	0421	1.855	0.0300	2.094	0.1521	0.0386	80	-1.57	010.60	0
001	Ammoniacal Nitrogen (%)	0423	0.4050	0.0100	0.5315	0.0907	0.0246	28	-1.39	001.99	0
010	Total Nitrogen (2%)	0423	1.500*	0.1000	2.094	0.1521	0.0386	80	-3.91	010.60	0
020	Total Phosphorus as P2O5 (%)	0423	15.07	0.1000	15.15	0.6201	0.1897	57	-0.12	020.50	0
050	Soluble Potassium as K2O (15%)	0423	17.56	0.9020	17.49	0.8170	0.1894	87	0.08	050.52	0
311	Sodium (%)	0423	0.0855	0.0010	0.1039	0.0442	0.0100	5	-0.42	311.33	0
050	Soluble Potassium as K2O (15%)	0428	25.36†	0.2707	17.49	0.8170	0.1894	87	9.63	050.30	0
321	Acid Soluble Zinc (0.1%)	0428	0.1343†	0.0137	0.0010	0.0009	0.0002	23	152.69	321.00	2
020	Total Phosphorus as P2O5 (%)	0433	15.24	0.0300	15.15	0.6201	0.1897	57	0.14	020.50	0
050	Soluble Potassium as K2O (15%)	0433	17.66	0.0700	17.49	0.8170	0.1894	87	0.20	050.99	0
001	Ammoniacal Nitrogen (%)	0451	0.5550	0.0100	0.5315	0.0907	0.0246	28	0.26	001.10	0
005	Urea Nitrogen (%)	0451	1.500	0.0400	1.701	0.1687	0.0521	13	-1.19	005.99	0
010	Total Nitrogen (2%)	0451	2.122	0.0480	2.094	0.1521	0.0386	80	0.18	010.60	0
020	Total Phosphorus as P2O5 (%)	0451	16.01	0.4400	15.15	0.6201	0.1897	57	1.39	020.50	0
050	Soluble Potassium as K2O (15%)	0451	17.98	0.1500	17.49	0.8170	0.1894	87	0.59	050.99	0
010	Total Nitrogen (2%)	0452	2.245	0.0100	2.094	0.1521	0.0386	80	0.99	010.60	0
020	Total Phosphorus as P2O5 (%)	0452	15.64	0.0800	15.15	0.6201	0.1897	57	0.80	020.50	0
050	Soluble Potassium as K2O (15%)	0452	18.08	0.0500	17.49	0.8170	0.1894	87	0.72	050.50	0
010	Total Nitrogen (2%)	0472	2.170	0.0400	2.094	0.1521	0.0386	80	0.50	010.60	0
020	Total Phosphorus as P2O5 (%)	0472	14.45	0.0300	15.15	0.6201	0.1897	57	-1.13	020.50	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0472	12.01*	0.0400	13.51	1.526	0.1224	49	-0.99	041.60	0
050	Soluble Potassium as K2O (15%)	0472	13.34*	0.1300	17.49	0.8170	0.1894	87	-5.09	050.31	0
010	Total Nitrogen (2%)	0476	2.076	0.0406	2.094	0.1521	0.0386	80	-0.12	010.99	0
020	Total Phosphorus as P2O5 (%)	0476	13.51	0.0412	15.15	0.6201	0.1897	57	-2.63	020.20	0
050	Soluble Potassium as K2O (15%)	0476	16.58	0.1650	17.49	0.8170	0.1894	87	-1.11	050.99	0
241	Acid Soluble Iron (0.1%)	0476	0.0025	0.0001	0.0014	0.0010	0.0002	22	1.06	241.99	0
321	Acid Soluble Zinc (0.1%)	0476	0.0004	0 Range	0.0010	0.0009	0.0002	23	-0.68	321.99	0
001	Ammoniacal Nitrogen (%)	0481	0.4600	0 Range	0.5315	0.0907	0.0246	28	-0.79	001.99	0

Method Group	Analyte Analyte (Units)	Lab Code	Lab Data		Method Values				Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar	# Labs			
005	Urea Nitrogen (%)	0481	1.905	0.0100	1.701	0.1687	0.0521	13	1.21	005.99	0
010	Total Nitrogen (2%)	0481	2.005	0.0100	2.094	0.1521	0.0386	80	-0.59	010.12	0
010	Total Nitrogen (2%)	0481	2.070	0.0200	2.094	0.1521	0.0386	80	-0.16	010.60	0
020	Total Phosphorus as P2O5 (%)	0481	15.35	0.1000	15.15	0.6201	0.1897	57	0.33	020.20	0
010	Total Nitrogen (2%)	0482	2.200	0.2000	2.094	0.1521	0.0386	80	0.69	010.60	1
020	Total Phosphorus as P2O5 (%)	0482	15.70	1.200	15.15	0.6201	0.1897	57	0.89	020.50	0
050	Soluble Potassium as K2O (15%)	0482	17.60	1.200	17.49	0.8170	0.1894	87	0.13	050.99	1
191	Acid Soluble Chromium (ppm)	0482	2.200	0 Range	9.361	14.84	0.2353	4	-0.48	191.30	0
311	Sodium (%)	0482	0.0800	0 Range	0.1039	0.0442	0.0100	5	-0.54	311.99	0
010	Total Nitrogen (2%)	0483	2.075	0.0300	2.094	0.1521	0.0386	80	-0.13	010.60	0
020	Total Phosphorus as P2O5 (%)	0483	15.73	0.4400	15.15	0.6201	0.1897	57	0.94	020.50	0
050	Soluble Potassium as K2O (15%)	0483	16.87	0.7300	17.49	0.8170	0.1894	87	-0.77	050.51	0
001	Ammoniacal Nitrogen (%)	0486	0.4850	0.0100	0.5315	0.0907	0.0246	28	-0.51	001.10	0
007	Urea (%)	0486	1.535	0.1300	1.522	0.0513	0.0700	3	0.26	007.00	0
010	Total Nitrogen (2%)	0486	2.050	0.0400	2.094	0.1521	0.0386	80	-0.29	010.60	0
020	Total Phosphorus as P2O5 (%)	0486	15.48	0.8200	15.15	0.6201	0.1897	57	0.54	020.40	0
050	Soluble Potassium as K2O (15%)	0486	16.56	0.3500	17.49	0.8170	0.1894	87	-1.14	050.52	0
241	Acid Soluble Iron (0.1%)	0486	0.0010	0 Range	0.0014	0.0010	0.0002	22	-0.40	241.33	0
010	Total Nitrogen (2%)	0493	2.100	0.1000	2.094	0.1521	0.0386	80	0.04	010.99	0
020	Total Phosphorus as P2O5 (%)	0493	15.20	0.1000	15.15	0.6201	0.1897	57	0.09	020.10	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0493	12.45*	0.1000	13.51	1.526	0.1224	49	-0.70	041.11	0
050	Soluble Potassium as K2O (15%)	0493	17.60	0.1000	17.49	0.8170	0.1894	87	0.13	050.99	0
010	Total Nitrogen (2%)	0494	2.065	0.0500	2.094	0.1521	0.0386	80	-0.19	010.60	0
020	Total Phosphorus as P2O5 (%)	0494	15.03	0.2000	15.15	0.6201	0.1897	57	-0.19	020.10	0
050	Soluble Potassium as K2O (15%)	0494	17.95	0.4700	17.49	0.8170	0.1894	87	0.56	050.00	0
001	Ammoniacal Nitrogen (%)	0498	0.5500	0.1000	0.5315	0.0907	0.0246	28	0.20	001.10	0
005	Urea Nitrogen (%)	0498	1.650	0.1000	1.701	0.1687	0.0521	13	-0.30	005.00	0
010	Total Nitrogen (2%)	0498	2.200	0 Range	2.094	0.1521	0.0386	80	0.69	010.12	0
020	Total Phosphorus as P2O5 (%)	0498	14.95	0.3000	15.15	0.6201	0.1897	57	-0.31	020.20	0
050	Soluble Potassium as K2O (15%)	0498	17.70	0.2000	17.49	0.8170	0.1894	87	0.26	050.99	0
151	Acid Soluble Arsenic (ppm)	0498	2.165	0.0700	2.745	0.4981	0.4225	4	-1.16	151.00	0
003	Water Insoluble Nitrogen (%)	0500	0.4700	0 Range				1		003.99	0
010	Total Nitrogen (2%)	0500	1.980	0 Range	2.094	0.1521	0.0386	80	-0.75	010.11	0
020	Total Phosphorus as P2O5 (%)	0500	15.25	0.1000	15.15	0.6201	0.1897	57	0.17	020.10	0
050	Soluble Potassium as K2O (15%)	0500	16.60	0 Range	17.49	0.8170	0.1894	87	-1.09	050.99	0
001	Ammoniacal Nitrogen (%)	0501	0.7450	0.0900	0.5315	0.0907	0.0246	28	2.35	001.99	0
010	Total Nitrogen (2%)	0501	2.040	0.0200	2.094	0.1521	0.0386	80	-0.36	010.60	0
020	Total Phosphorus as P2O5 (%)	0501	15.45	0.2200	15.15	0.6201	0.1897	57	0.49	020.50	0
050	Soluble Potassium as K2O (15%)	0501	15.88*	0.0200	17.49	0.8170	0.1894	87	-1.97	050.99	0
010	Total Nitrogen (2%)	0508	1.998	0.0070	2.094	0.1521	0.0386	80	-0.64	010.99	0
020	Total Phosphorus as P2O5 (%)	0508	15.67	0.2400	15.15	0.6201	0.1897	57	0.85	020.50	0
010	Total Nitrogen (2%)	0513	2.145	0.0300	2.094	0.1521	0.0386	80	0.33	010.99	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0513	12.30*	0.0800	13.51	1.526	0.1224	49	-0.80	041.11	0
050	Soluble Potassium as K2O (15%)	0513	16.15*	0.0500	17.49	0.8170	0.1894	87	-1.65	050.62	0
010	Total Nitrogen (2%)	0518	2.150	0.1000	2.094	0.1521	0.0386	80	0.37	010.99	0
020	Total Phosphorus as P2O5 (%)	0518	15.22	0.3700	15.15	0.6201	0.1897	57	0.11	020.99	0
050	Soluble Potassium as K2O (15%)	0518	15.08*	0 Range	17.49	0.8170	0.1894	87	-2.95	050.99	0

Method Group	Analyte Analyte (Units)	Lab Code	Lab Data		Method Values				Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar	# Labs			
241	Acid Soluble Iron (0.1%)	0518	0.1300†	0.0200	0.0014	0.0010	0.0002	22	129.63	241.20	2
010	Total Nitrogen (2%)	0521	2.202	0 Range	2.094	0.1521	0.0386	80	0.71	010.60	0
020	Total Phosphorus as P2O5 (%)	0521	16.18	0 Range	15.15	0.6201	0.1897	57	1.67	020.50	0
050	Soluble Potassium as K2O (15%)	0521	16.23*	0 Range	17.49	0.8170	0.1894	87	-1.54	050.99	0
121	Acid Soluble Magnesium (%)	0521	0.0007	0 Range	0.0011	0.0008	0.0002	8	-0.44	121.32	0
149	Sulfur - HNO3 soluble (%)	0521	0.0018	0 Range				2		149.04	0
165	Acid Soluble Boron (%)	0521	0.0011	0 Range	0.0052	0.0085	0.0016	4	-0.48	165.30	0
241	Acid Soluble Iron (0.1%)	0521	0.0006	0 Range	0.0014	0.0010	0.0002	22	-0.81	241.32	0
289	Acid Soluble Molybdenum (ppm)	0521	0.5791	0 Range	1.194	1.543	0.0640	4	-0.40	289.30	0
291	Acid Soluble Nickel (ppm)	0521	0.3319	0 Range	3.035	5.720	0.1693	5	-0.47	291.30	0
311	Sodium (%)	0521	0.0915	0 Range	0.1039	0.0442	0.0100	5	-0.28	311.32	0
321	Acid Soluble Zinc (0.1%)	0521	0.0006	0 Range	0.0010	0.0009	0.0002	23	-0.45	321.32	0
001	Ammoniacal Nitrogen (%)	0522	0.5200	0 Range	0.5315	0.0907	0.0246	28	-0.13	001.99	0
010	Total Nitrogen (2%)	0522	2.115	0.0100	2.094	0.1521	0.0386	80	0.14	010.99	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0522	12.51*	0.0900	13.51	1.526	0.1224	49	-0.66	041.11	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0522	15.54†	0.2600	13.51	1.526	0.1224	49	1.33	041.21	0
050	Soluble Potassium as K2O (15%)	0522	18.09	0.2100	17.49	0.8170	0.1894	87	0.73	050.00	0
010	Total Nitrogen (2%)	0523	1.700	0 Range	2.094	0.1521	0.0386	80	-2.59	010.60	0
020	Total Phosphorus as P2O5 (%)	0523	15.55	0.3000	15.15	0.6201	0.1897	57	0.65	020.50	0
050	Soluble Potassium as K2O (15%)	0523	17.75	0.3000	17.49	0.8170	0.1894	87	0.32	050.99	0
001	Ammoniacal Nitrogen (%)	0524	0.3807	0.0168	0.5315	0.0907	0.0246	28	-1.66	001.99	0
005	Urea Nitrogen (%)	0524	1.825	0.2900	1.701	0.1687	0.0521	13	0.74	005.99	0
010	Total Nitrogen (2%)	0524	2.083	0.0068	2.094	0.1521	0.0386	80	-0.08	010.60	0
020	Total Phosphorus as P2O5 (%)	0524	16.51	0.4420	15.15	0.6201	0.1897	57	2.20	020.50	0
050	Soluble Potassium as K2O (15%)	0524	19.79†	0.4098	17.49	0.8170	0.1894	87	2.81	050.99	0
121	Acid Soluble Magnesium (%)	0524	0.0005	0 Range	0.0011	0.0008	0.0002	8	-0.68	121.99	0
149	Sulfur - HNO3 soluble (%)	0524	0.0020	0 Range				2		149.04	0
165	Acid Soluble Boron (%)	0524	0.0009	0 Range	0.0052	0.0085	0.0016	4	-0.50	165.99	0
181	Acid Soluble Cadmium (ppm)	0524	0.0352	0.0010	0.1825	0.2584	0.0024	5	-0.57	181.30	0
202	Acid Soluble Cobalt (ppm)	0524	0.2120	0.0107	4.818	9.289	0.4279	4	-0.50	202.30	0
241	Acid Soluble Iron (0.1%)	0524	0.0003	0 Range	0.0014	0.0010	0.0002	22	-1.11	241.99	0
251	Acid Soluble Lead (ppm)	0524	0.0407	0.0042	1.775	2.712	0.1872	5	-0.64	251.30	0
289	Acid Soluble Molybdenum (ppm)	0524	0.2711	0.0369	1.194	1.543	0.0640	4	-0.60	289.30	0
291	Acid Soluble Nickel (ppm)	0524	0.2620	0.0425	3.035	5.720	0.1693	5	-0.48	291.30	0
321	Acid Soluble Zinc (0.1%)	0524	0.0003	0.0001	0.0010	0.0009	0.0002	23	-0.86	321.99	0
001	Ammoniacal Nitrogen (%)	0526	0.6600	0 Range	0.5315	0.0907	0.0246	28	1.42	001.10	0
010	Total Nitrogen (2%)	0526	1.720	0 Range	2.094	0.1521	0.0386	80	-2.46	010.17	0
020	Total Phosphorus as P2O5 (%)	0526	12.66	0.1900	15.15	0.6201	0.1897	57	-4.02	020.99	0
050	Soluble Potassium as K2O (15%)	0526	15.59*	0.1800	17.49	0.8170	0.1894	87	-2.33	050.99	0
010	Total Nitrogen (2%)	0527	1.948	0.0400	2.094	0.1521	0.0386	80	-0.96	010.60	0
020	Total Phosphorus as P2O5 (%)	0527	16.34	0.0300	15.15	0.6201	0.1897	57	1.92	020.50	0
050	Soluble Potassium as K2O (15%)	0527	17.91	0.0700	17.49	0.8170	0.1894	87	0.51	050.99	0
121	Acid Soluble Magnesium (%)	0527	0.0010	0 Range	0.0011	0.0008	0.0002	8	-0.07	121.33	0
151	Acid Soluble Arsenic (ppm)	0527	3.216	0.0200	2.745	0.4981	0.4225	4	0.95	151.33	0
181	Acid Soluble Cadmium (ppm)	0527	0.0425	0.0010	0.1825	0.2584	0.0024	5	-0.54	181.33	0
191	Acid Soluble Chromium (ppm)	0527	0.3945	0.0410	9.361	14.84	0.2353	4	-0.60	191.33	0
202	Acid Soluble Cobalt (ppm)	0527	0.0095	0.0010	4.818	9.289	0.4279	4	-0.52	202.33	0

Method Group	Analyte Analyte (Units)	Lab Code	Lab Data		Method Values				Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar	# Labs			
251	Acid Soluble Lead (ppm)	0527	0.0110	0.0020	1.775	2.712	0.1872	5	-0.65	251.33	0
281	Acid Soluble Mercury (ppm)	0527	0.0030	0.0040				2		281.30	0
289	Acid Soluble Molybdenum (ppm)	0527	0.4245	0.0190	1.194	1.543	0.0640	4	-0.50	289.33	0
291	Acid Soluble Nickel (ppm)	0527	0.2800	0.0040	3.035	5.720	0.1693	5	-0.48	291.33	0
301	Acid Soluble Selenium (ppm)	0527	0.0425	0.0130				1		301.33	0
311	Sodium (%)	0527	0.0800	0 Range	0.1039	0.0442	0.0100	5	-0.54	311.33	0
001	Ammoniacal Nitrogen (%)	0530	0.6650	0.0300	0.5315	0.0907	0.0246	28	1.47	001.99	0
002	Nitrate Nitrogen (%)	0530	0.8050	0.0500				1		002.99	0
010	Total Nitrogen (2%)	0530	2.200	0.2000	2.094	0.1521	0.0386	80	0.69	010.99	1
020	Total Phosphorus as P2O5 (%)	0530	13.60	0.2000	15.15	0.6201	0.1897	57	-2.49	020.20	0
050	Soluble Potassium as K2O (15%)	0530	37.05†	0.5000	17.49	0.8170	0.1894	87	23.94	050.99	2
121	Acid Soluble Magnesium (%)	0530	0.0020	0 Range	0.0011	0.0008	0.0002	8	1.14	121.00	0
151	Acid Soluble Arsenic (ppm)	0530	3.100	1.000	2.745	0.4981	0.4225	4	0.71	151.99	0
181	Acid Soluble Cadmium (ppm)	0530	0.0100	0 Range	0.1825	0.2584	0.0024	5	-0.67	181.99	0
221	Acid Soluble Copper (%)	0530	0.0020	0 Range	0.0012	0.0010	0.0004	3	0.82	221.00	0
241	Acid Soluble Iron (0.1%)	0530	0.01000†	0 Range	0.0014	0.0010	0.0002	22	8.67	241.00	0
251	Acid Soluble Lead (ppm)	0530	6.450	0.9000	1.775	2.712	0.1872	5	1.72	251.99	0
281	Acid Soluble Mercury (ppm)	0530	0.0200	0 Range				2		281.99	0
321	Acid Soluble Zinc (0.1%)	0530	0.01000†	0 Range	0.0010	0.0009	0.0002	23	10.32	321.00	0
001	Ammoniacal Nitrogen (%)	0531	0.6000	0.0400	0.5315	0.0907	0.0246	28	0.76	001.10	0
007	Urea (%)	0531	1.465	0.0100	1.522	0.0513	0.0700	3	-1.10	007.99	0
010	Total Nitrogen (2%)	0531	2.060	0.0200	2.094	0.1521	0.0386	80	-0.23	010.11	0
020	Total Phosphorus as P2O5 (%)	0531	15.17	0.0200	15.15	0.6201	0.1897	57	0.04	020.99	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0531	12.51*	0.0200	13.51	1.526	0.1224	49	-0.66	041.99	0
050	Soluble Potassium as K2O (15%)	0531	15.56*	0.0200	17.49	0.8170	0.1894	87	-2.36	050.99	0
241	Acid Soluble Iron (0.1%)	0531	0.0012	0.0001	0.0014	0.0010	0.0002	22	-0.25	241.00	0
321	Acid Soluble Zinc (0.1%)	0531	0.0008	0.0001	0.0010	0.0009	0.0002	23	-0.28	321.00	0
001	Ammoniacal Nitrogen (%)	0532	0.5800	0.0200	0.5315	0.0907	0.0246	28	0.54	001.99	0
005	Urea Nitrogen (%)	0532	1.525	0.0300	1.701	0.1687	0.0521	13	-1.04	005.99	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0532	12.72*	0.0800	13.51	1.526	0.1224	49	-0.52	041.99	0
050	Soluble Potassium as K2O (15%)	0532	15.11*	0.0600	17.49	0.8170	0.1894	87	-2.91	050.99	0
001	Ammoniacal Nitrogen (%)	0533	0.3700	0.0800	0.5315	0.0907	0.0246	28	-1.78	001.99	0
005	Urea Nitrogen (%)	0533	2.005	0.0300	1.701	0.1687	0.0521	13	1.80	005.99	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0533	14.60†	0.0800	13.51	1.526	0.1224	49	0.71	041.99	0
050	Soluble Potassium as K2O (15%)	0533	15.05*	1.190	17.49	0.8170	0.1894	87	-2.99	050.99	1
321	Acid Soluble Zinc (0.1%)	0533	0.0026	0.0003	0.0010	0.0009	0.0002	23	1.78	321.00	0
010	Total Nitrogen (2%)	0534	2.200	0 Range	2.094	0.1521	0.0386	80	0.69	010.60	0
020	Total Phosphorus as P2O5 (%)	0534	15.00	0 Range	15.15	0.6201	0.1897	57	-0.23	020.20	0
050	Soluble Potassium as K2O (15%)	0534	14.90*	0 Range	17.49	0.8170	0.1894	87	-3.17	050.30	0
001	Ammoniacal Nitrogen (%)	0535	0.5600	0.0200	0.5315	0.0907	0.0246	28	0.31	001.99	0
001	Ammoniacal Nitrogen (%)	0535	0.5950	0.0300	0.5315	0.0907	0.0246	28	0.70	001.10	0
010	Total Nitrogen (2%)	0535	2.150	0.1000	2.094	0.1521	0.0386	80	0.37	010.11	0
020	Total Phosphorus as P2O5 (%)	0535	15.20	0.2000	15.15	0.6201	0.1897	57	0.09	020.99	0
020	Total Phosphorus as P2O5 (%)	0535	15.25	0.1000	15.15	0.6201	0.1897	57	0.17	020.20	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0535	12.50*	0 Range	13.51	1.526	0.1224	49	-0.66	041.60	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0535	12.55*	0.1000	13.51	1.526	0.1224	49	-0.63	041.21	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0535	12.55*	0.1000	13.51	1.526	0.1224	49	-0.63	041.99	0

Method Group	Analyte Analyte (Units)	Lab Code	Lab Data		Method Values				Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar	# Labs			
048	Water Soluble Phosphorus as P2O5 (%)	0535	12.55	0.1000				2		048.20	0
050	Soluble Potassium as K2O (15%)	0535	17.75	0.1000	17.49	0.8170	0.1894	87	0.32	050.99	0
050	Soluble Potassium as K2O (15%)	0535	17.85	0.1000	17.49	0.8170	0.1894	87	0.44	050.61	0
241	Acid Soluble Iron (0.1%)	0535	0.0010	0.0001	0.0014	0.0010	0.0002	22	-0.45	241.00	0
321	Acid Soluble Zinc (0.1%)	0535	0.0003	0.0001	0.0010	0.0009	0.0002	23	-0.86	321.00	0
325	Water Soluble Zinc (%)	0535	0.0002	0 Range	0.0004	0.0003	0.0000	3	-0.58	325.00	0
010	Total Nitrogen (2%)	0536	2.425	0.0300	2.094	0.1521	0.0386	80	2.17	010.11	0
020	Total Phosphorus as P2O5 (%)	0536	14.84	0.0400	15.15	0.6201	0.1897	57	-0.49	020.99	0
050	Soluble Potassium as K2O (15%)	0536	18.30	0.5300	17.49	0.8170	0.1894	87	0.98	050.99	0
001	Ammoniacal Nitrogen (%)	0537	0.5050	0.0300	0.5315	0.0907	0.0246	28	-0.29	001.99	0
005	Urea Nitrogen (%)	0537	1.530	0.0400	1.701	0.1687	0.0521	13	-1.01	005.00	0
020	Total Phosphorus as P2O5 (%)	0537	15.16	0.1000	15.15	0.6201	0.1897	57	0.02	020.99	0
050	Soluble Potassium as K2O (15%)	0537	14.95*	0.3000	17.49	0.8170	0.1894	87	-3.11	050.99	0
010	Total Nitrogen (2%)	0538	1.980	0.0400	2.094	0.1521	0.0386	80	-0.75	010.11	0
020	Total Phosphorus as P2O5 (%)	0538	14.70	0.0500	15.15	0.6201	0.1897	57	-0.73	020.99	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0538	12.40*	0.0400	13.51	1.526	0.1224	49	-0.73	041.99	0
050	Soluble Potassium as K2O (15%)	0538	17.70	0.0800	17.49	0.8170	0.1894	87	0.26	050.99	0
001	Ammoniacal Nitrogen (%)	0539	0.5900	0.0200	0.5315	0.0907	0.0246	28	0.65	001.99	0
010	Total Nitrogen (2%)	0539	2.305	0.0100	2.094	0.1521	0.0386	80	1.39	010.11	0
020	Total Phosphorus as P2O5 (%)	0539	15.28	0.0600	15.15	0.6201	0.1897	57	0.22	020.99	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0539	12.59*	0.0200	13.51	1.526	0.1224	49	-0.61	041.99	0
050	Soluble Potassium as K2O (15%)	0539	17.95	0.1000	17.49	0.8170	0.1894	87	0.56	050.99	0
325	Water Soluble Zinc (%)	0539	0.0002	0 Range	0.0004	0.0003	0.0000	3	-0.58	325.00	0
001	Ammoniacal Nitrogen (%)	0540	0.6000	0 Range	0.5315	0.0907	0.0246	28	0.76	001.99	0
010	Total Nitrogen (2%)	0540	2.250	0.1000	2.094	0.1521	0.0386	80	1.02	010.11	0
020	Total Phosphorus as P2O5 (%)	0540	15.35	0.1000	15.15	0.6201	0.1897	57	0.33	020.99	0
041	Direct Available Phosphorus as P2O5 (15.2%)	0540	12.55*	0.1000	13.51	1.526	0.1224	49	-0.63	041.99	0
050	Soluble Potassium as K2O (15%)	0540	17.90	0.2000	17.49	0.8170	0.1894	87	0.50	050.99	0
321	Acid Soluble Zinc (0.1%)	0540	0.0011	0.0002	0.0010	0.0009	0.0002	23	0.12	321.00	0
325	Water Soluble Zinc (%)	0540	0.0008	0.0001	0.0004	0.0003	0.0000	3	1.15	325.00	0
010	Total Nitrogen (2%)	0541	1.035*	0.0100	2.094	0.1521	0.0386	80	-6.96	010.60	0
020	Total Phosphorus as P2O5 (%)	0541	13.93	0.1600	15.15	0.6201	0.1897	57	-1.96	020.20	0
050	Soluble Potassium as K2O (15%)	0541	16.46*	0.5500	17.49	0.8170	0.1894	87	-1.27	050.99	0
241	Acid Soluble Iron (0.1%)	0541	0.0011	0 Range	0.0014	0.0010	0.0002	22	-0.30	241.30	0
321	Acid Soluble Zinc (0.1%)	0541	0.0032	0.0011	0.0010	0.0009	0.0002	23	2.47	321.30	0
010	Total Nitrogen (2%)	0543	1.969	0.0070	2.094	0.1521	0.0386	80	-0.83	010.60	0
020	Total Phosphorus as P2O5 (%)	0543	14.34	0.5990	15.15	0.6201	0.1897	57	-1.31	020.50	0
050	Soluble Potassium as K2O (15%)	0543	16.34*	0.0260	17.49	0.8170	0.1894	87	-1.41	050.52	0

# magruder fertilizer

## check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

Sample # 170611

Grade 2-15-15 w/PO3

### Statistical Summary

# Analytes: 31

# Labs Reporting: 90

Issue Date : 07/31/2017

Analyte Code	Analyte	# 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 Factor	Average Range (R-bar)	Horwitz %RSD
001	Ammoniacal Nitrogen (%)	29	28	0.5328	0.0885	0.5315	0.4900	0.0907	0.0214	17.06%	0.37	0.0246	4.40%
002	Nitrate Nitrogen (%)	1		0.8050									
003	Water Insoluble Nitrogen (%)	1		0.4700									
005	Urea Nitrogen (%)	14	13	1.705	0.1565	1.701	0.4900	0.1687	0.0585	9.92%	0.69	0.0521	3.69%
007	Urea (%)	3	3	1.522	0.0513	1.522	0.4900	0.0513	0.0370	3.37%	0.21	0.0700	3.75%
010	Total Nitrogen (2%)	83	80	2.087	0.2328	2.094	0.4900	0.1521	0.0213	7.26%	0.62	0.0386	3.58%
020	Total Phosphorus as P2O5 (%)	60	57	15.06	0.9357	15.15	0.7000	0.6201	0.1027	4.09%	1.77	0.1897	2.66%
041	Direct Available Phosphorus as P2O5 (15.2%)	50	49	13.51	1.345	13.51	0.6976	1.526	0.2724	11.29%	4.37	0.1224	2.70%
048	Water Soluble Phosphorus as P2O5 (%)	2	2	13.38	1.177								
050	Soluble Potassium as K2O (15%)	90	87	17.46	1.351	17.49	0.9922	0.8170	0.1095	4.67%	1.65	0.1894	2.60%
101	Acid Soluble Calcium (%)	4	4	0.0087	0.0123	0.0087	0.2004	0.0123	0.0077	140.47%	0.12	0.0015	8.16%
121	Acid Soluble Magnesium (%)	9	8	0.0022	0.0036	0.0011	0.2001	0.0008	0.0003	71.05%	0.01	0.0002	11.21%
143	Elemental Sulfur (%)	1		0.0025									
148	Total Sulfur (%)	1		0.0285									
149	Sulfur - HNO3 soluble (%)	2	2	0.0019	0.0001								
151	Acid Soluble Arsenic (ppm)	4	4	2.745	0.4981	2.745		0.4981	0.3113	18.14%		0.4225	13.74%
165	Acid Soluble Boron (%)	4	4	0.0052	0.0085	0.0052	0.0038	0.0085	0.0053	164.12%	4.52	0.0016	8.83%
181	Acid Soluble Cadmium (ppm)	5	5	0.1825	0.2584	0.1825		0.2584	0.1445	141.58%		0.0024	20.66%
191	Acid Soluble Chromium (ppm)	4	4	9.361	14.84	9.361		14.84	9.276	158.54%		0.2353	11.42%
202	Acid Soluble Cobalt (ppm)	4	4	4.818	9.289	4.818	2.4454	9.289	5.806	192.80%	7.60	0.4279	12.63%
221	Acid Soluble Copper (%)	3	3	0.0012	0.0010	0.0012	0.0051	0.0010	0.0007	78.66%	0.37	0.0004	10.98%
241	Acid Soluble Iron (0.1%)	24	22	0.0026	0.0035	0.0014	0.0051	0.0010	0.0003	70.86%	0.39	0.0002	10.75%
251	Acid Soluble Lead (ppm)	5	5	1.775	2.712	1.775		2.712	1.516	152.75%		0.1872	14.67%
261	Acid Soluble Manganese (%)	1		0.0000									
281	Acid Soluble Mercury (ppm)	2	2	0.0115	0.0120								
289	Acid Soluble Molybdenum (ppm)	4	4	1.194	1.543	1.194	1.3581	1.543	0.9642	129.24%	2.27	0.0640	15.58%
291	Acid Soluble Nickel (ppm)	5	5	3.035	5.720	3.035		5.720	3.198	188.48%		0.1693	13.54%
301	Acid Soluble Selenium (ppm)	1		0.0425									
311	Sodium (%)	5	5	0.1039	0.0442	0.1039	0.0154	0.0442	0.0247	42.54%	5.74	0.0100	5.62%
321	Acid Soluble Zinc (0.1%)	26	23	0.0016	0.0024	0.0010	0.0051	0.0009	0.0002	87.57%	0.34	0.0002	11.32%
325	Water Soluble Zinc (%)	3	3	0.0004	0.0003	0.0004		0.0003	0.0002	82.84%		0.0000	13.07%