MAGRUDER - Fertilizer Check Sample No. - 200110 Grade 10-34-0 (A), 0-0-50 (B)

Method	AOAC Ref.	Method Code	- Pass 1 Results for 83 Labs - No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups	- Pass 2 Results for 83 Labs - No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups
Ammoniacal Nitrogen, MgO Distillation .	920.03	001.10	1	10.075	0.0071	0.0100	1	10.075	0.0071	0.0100
Ammoniacal Nitrogen, Other		001.99	4	10.033	0.1586	0.0500	4	10.033	0.1586	0.0500
Method Group 001.XX PCT			5	10.041	0.1411	0.0420	5	10.041	0.1411	0.0420
Nitrate Nitrogen, Robertson	930.01	002.10	1	34.652	0.0088	0.0124	1	34.652	0.0088	0.0124
Ammon & Nitrate N, Devarda	892.01	009.10	3	10.062	0.1999	0.1433	3	10.062	0.1999	0.1433
Total Nitrogen, Reduced Iron		010.10	1	10.040	0.0000	0.0000	1	10.040	0.0000	0.0000
Total Nitrogen, Modified Comprehensive	978.02	010.11	11	9.9962	0.2247	0.0770	10	9.9869	0.2258	0.0467
Total Nitrogen, Salicylic	955.04D	010.12	5	10.111	0.1324	0.0123	5	10.111	0.1324	0.0123
Total Nitrogen, Comprehensive	970.02	010.17	4	10.133	0.1500	0.0453	4	10.133	0.1500	0.0453
Total Nitrogen, Combustion		010.60	37	10.062	0.1778	0.0807	35	10.057	0.1761	0.0647
Total Nitrogen, Other		010.99	7	10.106	0.2044	0.0753	7	10.106	0.2044	0.0753
Method Group 010.XX PCT			65	10.063	0.1850	0.0708	62	10.060	0.1842	0.0565
Total Phosphate, Grav Quimociac	962.02	020.10	7	35.054	0.2780	0.1300	6	35.069	0.2662	0.0450
Total Phosphate, Spectrometric	958.01	020.20	14	34.472	0.5575	0.1014	13	34.424	0.5464	0.0785
Total Phosphate, Alka. Quimociac	969.02	020.30	1	34.875	0.0190	0.0268	1	34.875	0.0190	0.0268
Total Phosphate, Automated	978.01	020.40	4	35.040	0.2202	0.1550	4	35.040	0.2202	0.1550
Total Phosphate, ICP		020.50	1	34.350	0.0424	0.0600	1	34.350	0.0424	0.0600
Total Phosphate, Other		020.99	1	35.112	0.0093	0.0131	1	35.112	0.0093	0.0131
Method Group 020.XX PCT			29	34.697	0.5384	0.1252	27	34.723	0.5166	0.0893
InDir Available Phosphate, Grav Quim ..	960.02	040.10	1	34.925	0.0071	0.0100	1	34.925	0.0071	0.0100
InDir Available Phosphate, Spectrometri	960.02	040.20	2	34.545	0.2466	0.3200	2	34.545	0.2466	0.3200
Method Group 040.XX PCT			3	34.672	0.2739	0.2167	3	34.672	0.2739	0.2167
Dir Available Phosphate, Grav Quim	960.03E	041.10	13	35.100	0.1898	0.0392	13	35.100	0.1898	0.0392
Dir Available Phosphate, Spectrometric	960.03D	041.20	1	34.400	0.0000	0.0000	1	34.400	0.0000	0.0000
Dir Available Phosphate, Alka. Quim ...	960.03C	041.30	1	33.845	0.0636	0.0900	1	33.845	0.0636	0.0900
Dir Available Phosphate, Automated	978.01	041.40	5	34.457	0.3992	0.0740	4	34.623	0.2078	0.0250
Dir Available Phosphate, ICP		041.50	7	34.944	0.9258	0.3391	6	34.801	0.8584	0.1250
Dir Available Phosphate, EDTA Extract .	993.01	041.60	8	34.993	0.4772	0.1163	8	34.993	0.4772	0.1163
Dir Available Phosphate, Other		041.99	1	34.930	0.1131	0.1600	1	34.930	0.1131	0.1600
Method Group 041.XX PCT			37	34.922	0.5792	0.1268	36	34.898	0.5513	0.0853
Water Soluble Phosphate, ICP		048.50	1	36.650	0.3536	0.5000	1	36.650	0.3536	0.5000
Soluble Potash, STPB Oxalate	958.02	050.00	22	50.825	0.4229	0.1214	22	50.825	0.4229	0.1214
Soluble Potash, STPB Citrate	969.04	050.10	1	50.586	0.1063	0.1503	1	50.586	0.1063	0.1503
Soluble Potash, AA (Oxalate)		050.30	8	50.927	0.7573	0.2567	7	51.067	0.6529	0.1062
Soluble Potash, AA (Citrate)		050.31	1	51.250	0.3536	0.5000	1	51.250	0.3536	0.5000
Soluble Potash, ICP (Oxalate)		050.50	3	51.615	0.8363	0.8411	3	51.615	0.8363	0.8411
Soluble Potash, ICP (Citrate)		050.51	6	51.134	1.3040	0.4083	6	51.134	1.3040	0.4083
Soluble Potash, Flame (Oxalate)	983.02(a	050.60	5	50.614	0.5672	0.1337	5	50.614	0.5672	0.1337
Soluble Potash, Flame (Citrate)	983.02(b	050.61	9	51.661	0.5054	0.2289	9	51.661	0.5054	0.2289

Method	AOAC Ref.	Method Code	- Pass 1 Results for 83 Labs - No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups	- Pass 2 Results for 83 Labs - No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups
Soluble Potash, Other		050.99	16	50.806	1.0248	0.3519	14	50.669	0.9775	0.2021
Method Group 050.XX PCT			71	50.985	0.8136	0.2635	66	50.923	0.7267	0.1846
Free Water, Vacuum Oven	965.08B	060.00	4	0.1485	0.0846	0.0275	4	0.1485	0.0846	0.0275
Acid Soluble Calcium, ICP		101.30	3	0.1938	0.0137	0.0088	3	0.1938	0.0137	0.0088
Acid Soluble Calcium, Other		101.99	1	0.1918	0.0008	0.0012	1	0.1918	0.0008	0.0012
Method Group 101.XX PCT			4	0.1933	0.0116	0.0069	4	0.1933	0.0116	0.0069
Acid Soluble Magnesium, ICP		121.30	4	0.5593	0.0369	0.0119	4	0.5593	0.0369	0.0119
Acid Soluble Magnesium, Other		121.99	1	0.5557	0.0108	0.0153	1	0.5557	0.0108	0.0153
Method Group 121.XX PCT			5	0.5586	0.0328	0.0126	5	0.5586	0.0328	0.0126
Water Soluble Magnesium, Other		131.99	1	0.0150	0.0071	0.0100	1	0.0150	0.0071	0.0100
Sulfur, Gravimetric	980.02a	144.01	16	18.150	0.3861	0.0823	16	18.150	0.3861	0.0823
Sulfur, Gravimetric	980.02b	144.02	1	18.575	0.0495	0.0700	1	18.575	0.0495	0.0700
Sulfur, Spectrometric		144.70	2	17.863	1.6027	0.0650	2	17.863	1.6027	0.0650
Sulfur, Other		144.99	19	18.181	0.3794	0.1745	18	18.224	0.3259	0.1397
Method Group 144.XX PCT			39	18.189	0.5287	0.1572	36	18.230	0.3913	0.1112
Arsenic, ICP		151.30	2	0.1400	0.0462	0.0000	2	0.1400	0.0462	0.0000
Arsenic, Other		151.99	2	0.0550	0.0661	0.0500	2	0.0550	0.0661	0.0500
Method Group 151.XX PPM			4	0.0975	0.0696	0.0250	3	0.0967	0.0761	0.0000
Cadmium, ICP		181.30	1	1.6000	0.0000	0.0000	1	1.6000	0.0000	0.0000
Water Soluble Chlorine, Titrimetric	928.02	190.00	21	0.8279	0.2383	0.0181	20	0.8230	0.2432	0.0155
Water Soluble Chlorine, Other		190.99	7	0.8495	0.2714	0.0171	7	0.8495	0.2714	0.0171
Method Group 190.XX PCT			28	0.8333	0.2446	0.0178	27	0.8299	0.2485	0.0159
Chromium, ICP		191.30	2	2.4025	1.0511	0.2350	2	2.4025	1.0511	0.2350
Acid Soluble Cobalt, ICP	965.11	202.30	2	0.5025	0.5701	0.4550	2	0.5025	0.5701	0.4550
Acid Soluble Cobalt, Other		202.99	2	0.3750	0.1500	0.0500	2	0.3750	0.1500	0.0500
Method Group 202.XX PPM			4	0.4388	0.3919	0.2525	3	0.2917	0.1737	0.0367
Acid Soluble Copper, Atomic Absorption	975.01	221.00	3	0.0021	0.0009	0.0002	3	0.0021	0.0009	0.0002
Acid Soluble Copper, ICP		221.30	9	0.0015	0.0003	0.0001	8	0.0015	0.0002	0.0000
Acid Soluble Copper, Other		221.99	2	0.0018	0.0003	0.0001	2	0.0018	0.0003	0.0001
Method Group 221.XX PCT			14	0.0017	0.0005	0.0001	13	0.0016	0.0005	0.0001
Acid Soluble Iron, ICP		241.30	4	0.0591	0.0096	0.0005	4	0.0591	0.0096	0.0005
Acid Soluble Iron, Other		241.99	1	0.0424	0.0062	0.0087	1	0.0424	0.0062	0.0087
Method Group 241.XX PCT			5	0.0557	0.0112	0.0021	4	0.0591	0.0096	0.0005
Lead, Atomic Absorption		251.00	1	18.500	3.5355	5.0000	1	18.500	3.5355	5.0000
Lead, ICP		251.30	1	1.5000	0.1414	0.2000	1	1.5000	0.1414	0.2000
Lead, Other		251.99	3	3.5617	2.9528	0.0767	3	3.5617	2.9528	0.0767
Method Group 251.XX PPM			5	6.1370	7.0285	1.0860	4	3.0463	2.6723	0.1075
Acid Soluble Manganese, ICP	972.02a	261.30	4	0.0010	0.0002	0.0000	4	0.0010	0.0002	0.0000
Acid Soluble Manganese, Other		261.99	1	0.0008	0.0000	0.0000	1	0.0008	0.0000	0.0000

Method	AOAC Ref.	Method Code	- Pass 1 Results for 83 Labs - No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups	- Pass 2 Results for 83 Labs - No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups
Method Group 261.XX PCT			5	0.0009	0.0002	0.0000	5	0.0009	0.0002	0.0000
Mercury, ICP		281.30	1	1.9900	1.2162	1.7200	1	1.9900	1.2162	1.7200
Mercury, Other		281.99	2	0.0375	0.0126	0.0150	2	0.0375	0.0126	0.0150
Method Group 281.XX PPM			3	0.6883	1.1457	0.5833	3	0.6883	1.1457	0.5833
Molybdenum, ICP		289.30	1	0.6500	0.0707	0.1000	1	0.6500	0.0707	0.1000
Molybdenum, Other		289.99	2	2.0250	1.0527	1.2800	2	2.0250	1.0527	1.2800
Method Group 289.XX PPM			3	1.5667	1.0817	0.8867	3	1.5667	1.0817	0.8867
Nickel, ICP		291.30	4	1.2500	0.5372	0.0550	3	0.9683	0.1372	0.0033
Nickel, Other		291.99	1	2.0000	0.0000	0.0000	1	2.0000	0.0000	0.0000
Method Group 291.XX PPM			5	1.4000	0.5696	0.0440	4	1.2263	0.4914	0.0025
Selenium, Other		301.99	4	0.0318	0.0310	0.0075	4	0.0318	0.0310	0.0075
Sodium, Other		311.99	4	0.2706	0.0292	0.0075	4	0.2706	0.0292	0.0075
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	3	0.0010	0.0002	0.0000	3	0.0010	0.0002	0.0000
Acid Soluble Zin, ICP		321.30	8	0.0027	0.0031	0.0016	7	0.0024	0.0028	0.0007
Acid Soluble Zinc, Other		321.99	1	0.0012	0.0008	0.0012	1	0.0012	0.0008	0.0012
Method Group 321.XX PCT			12	0.0022	0.0027	0.0012	11	0.0019	0.0023	0.0006

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index
--	Method 001.10 --	
232	10.075	.71
--	Method 001.99 --	
190	10.180	.94
096	10.140	.68
Avg	10.033	
409	10.000	-.21
220	9.8100	-1.45
--	Method 001.XX --	
190	10.180	1.00
096	10.140	.71
232	10.075	.24
Avg	10.041	
409	10.000	-.30
220	9.8100	-1.69
--	Method 002.10 --	
157	34.652	.71
--	Method 009.10 --	
090	10.200	.71
387	10.150	.51
Avg	10.062	
030	9.8350	-1.32
--	Method 010.10 --	
072	10.040	.00
--	Method 010.11 --	
322	10.424	1.94
114	10.090 R	.96
288	10.155	.75
363	10.065	.45
029	10.080	.41
028	10.075	.39
Avg	9.9869	
073	9.9450	-.20
--	Method 010.11 --	
414	9.9100	-.37
148	9.8800	-.48
211	9.7350	-1.15
309	9.6000	-1.71
395	9.4350 S	-2.51
--	Method 010.12 --	
162	10.300	1.43
185	10.185	.57
351	10.115	.12
Avg	10.111	
416	10.005	-.80
137	9.9500	-1.22
--	Method 010.17 --	
405	10.365	1.55
Avg	10.133	
105	10.080	-.38
102	10.075	-.39
415	10.012	-.90
--	Method 010.60 --	
095	10.475	2.38
369	10.370 s	2.35
041	10.430	2.14
035	10.415	2.04
037	10.290	1.36
381	10.190 R	1.18
330	10.100 R	1.16
007	10.250	1.13
072	10.210	.95
390	10.200	.93
325	10.160	.59
028	10.095	.53
131	10.110	.45
393	10.120	.36
372	10.100	.27
233	10.090	.22
--	Method 010.60 --	
251	10.085	.21
025	10.065	.10
023	10.060	.06
Avg	10.057	
296	10.055	-.09
361	10.030	-.19
231	10.020	-.24
247	10.045	-.26
049	10.015	-.31
376	10.000	-.33
029	9.9750	-.48
027	9.9575	-.57
136	9.9550	-.59
040	9.9550	-.59
043	9.9550	-.63
057	9.9350	-.76
009	9.9250	-.78
262	9.9150	-.81
024	9.9050	-.89
324	9.9200	-.90
142	9.8250	-1.33
401	9.7350	-1.84
157	9.7300	-1.86
360	9.7200 s	-2.89
389	9.4800 S	-3.28
307	8.1700 s	-10.72
--	Method 010.99 --	
354	10.538	2.14
300	10.110	.10
Avg	10.106	
307	10.075	-.15
153	10.053	-.26
024	10.105	-.42
177	9.9650	-.70
105	9.8950	-1.07
--	Method 010.XX --	
354	10.538	2.62
095	10.475	2.25
369	10.370 s	2.23
041	10.430	2.03
322	10.424	1.98
035	10.415	1.93
405	10.365	1.65
162	10.300	1.30
037	10.290	1.29
381	10.190 R	1.12
330	10.100 R	1.11
007	10.250	1.06
114	10.090 R	1.04
072	10.210	.90
390	10.200	.87
185	10.185	.68
325	10.160	.55
024	10.105	.52
288	10.155	.52
028	10.095	.50
131	10.110	.42
363	10.065	.35
393	10.120	.33
351	10.115	.31
300	10.110	.29
372	10.100	.24
233	10.090	.19
251	10.085	.19
105	10.080	.15
029	10.080	.11
025	10.065	.09
102	10.075	.08
028	10.075	.08
307	10.075	.08
Avg	10.060	
153	10.053	-.04
023	10.060	-.05
296	10.055	-.09
--	Method 010.XX --	
072	10.040	-.11
361	10.030	-.20
231	10.020	-.24
247	10.045	-.26
416	10.005	-.30
049	10.015	-.31
376	10.000	-.33
415	10.012	-.42
029	9.9750	-.47
177	9.9650	-.54
027	9.9575	-.56
136	9.9550	-.58
040	9.9550	-.58
137	9.9500	-.60
043	9.9550	-.62
073	9.9450	-.63
057	9.9350	-.74
009	9.9250	-.76
262	9.9150	-.79
414	9.9100	-.83
024	9.9050	-.86
324	9.9200	-.88
105	9.8950	-.95
148	9.8800	-.98
142	9.8250	-1.28
401	9.7350	-1.78
157	9.7300	-1.79
211	9.7350	-1.80
309	9.6000	-2.50
360	9.7200 s	-2.77
389	9.4800 s	-3.15
395	9.4350 s	-3.46
307	8.1700 s	-10.26
--	Method 020.10 --	
114	35.520	1.70
148	35.190	.46
090	35.090	.14

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index
--	Method 020.10	--
Avg	35.069	
072	35.055	-.06
190	34.785	-1.08
300	34.775	-1.11
162	34.960 R	-1.27
095	33.740 s	-5.11
--	Method 020.20	--
177	35.215	1.46
030	35.100 R	1.29
096	34.925	.92
288	34.880	.84
232	34.840	.76
363	34.735	.61
231	34.600	.37
220	34.610	.34
Avg	34.424	
324	34.420	-.01
395	34.220	-.38
369	34.130	-.55
372	34.090	-.61
381	33.535	-1.63
376	33.310	-2.04
309	31.050 s	-6.18
--	Method 020.30	--
416	34.875	-.71
--	Method 020.40	--
035	35.320	1.30
247	35.080	.53
Avg	35.040	
142	34.960	-.45
409	34.800	-1.15
--	Method 020.50	--
330	38.170 S	98.94
361	34.350	.71
--	Method 020.50	--
Avg	34.350	
389	31.550 S	-66.09
--	Method 020.99	--
153	35.112	.71
--	Method 020.XX	--
330	38.170 s	7.47
114	35.520	1.54
035	35.320	1.16
177	35.215	.97
148	35.190	.90
030	35.100	.83
162	34.960 R	.77
153	35.112	.75
247	35.080	.72
090	35.090	.71
072	35.055	.64
142	34.960	.47
096	34.925	.39
288	34.880	.30
416	34.875	.29
232	34.840	.23
363	34.735	.22
409	34.800	.21
190	34.785	.15
300	34.775	.11
Avg	34.723	
220	34.610	-.22
231	34.600	-.31
324	34.420	-.59
361	34.350	-.72
395	34.220	-.98
369	34.130	-1.15
372	34.090	-1.23
095	33.740 R	-1.98
381	33.535	-2.30
376	33.310	-2.74
--	Method 020.XX	--
389	31.550 s	-6.15
309	31.050 s	-7.11
--	Method 040.10	--
405	34.925	.71
--	Method 040.20	--
262	34.620	.34
Avg	34.545	
395	34.470	-1.18
--	Method 040.XX	--
405	34.925	.93
Avg	34.672	
262	34.620	-.24
395	34.470	-1.26
--	Method 041.10	--
296	35.820 s	3.86
185	35.400	1.58
211	35.355	1.35
105	35.255	.85
041	35.235	.71
009	35.175	.40
136	35.105	.24
028	35.130	.19
Avg	35.100	
029	35.045	-.29
040	35.020	-.42
233	35.020	-.43
322	34.989	-.66
131	34.845	-1.34
057	34.720	-2.00
--	Method 041.20	--
137	34.400	.00
415	14.046 S	.00
Avg	34.400	
--	Method 041.30	--
260	33.845	.71
--	Method 041.40	--
027	34.765	.69
029	34.740	.57
131	34.695	.36
Avg	34.623	
025	34.290	-1.61
049	33.795 R	-4.04
--	Method 041.50	--
251	36.170	1.60
354	35.802 R	1.50
023	35.425	.74
360	34.895	.24
Avg	34.801	
325	34.435	-.43
393	34.180	-.72
102	33.700	-1.28
007	33.000 S	-2.21
--	Method 041.60	--
296	35.880	1.86
105	35.270	.60
028	35.170	.41
037	35.085	.19
Avg	34.993	
351	34.830	-.34
073	34.850	-.38
043	34.640	-.75
024	34.220	-1.63
288	12.530 s	-47.07
--	Method 041.99	--
220	34.930	.71
Avg	34.930	
401	15.300 S	-173.51
--	Method 041.XX	--
251	36.170	2.31
354	35.802 R	2.20
296	35.880	1.78
296	35.820	1.69
023	35.425	.97
185	35.400	.91
211	35.355	.83
105	35.270	.69
105	35.255	.65
041	35.235	.61
028	35.170	.51
009	35.175	.50
028	35.130	.42
136	35.105	.38
037	35.085	.34
029	35.045	.27
233	35.020	.22
040	35.020	.22
322	34.989	.20
220	34.930	.16
Avg	34.898	
131	34.845	-.10
351	34.830	-.12
073	34.850	-.22
027	34.765	-.24
029	34.740	-.29
057	34.720	-.32
360	34.895	-.34
131	34.695	-.37
043	34.640	-.48
325	34.435	-.84
137	34.400	-.90
025	34.290	-1.10
024	34.220	-1.24
260	33.845	-1.91
049	33.795	-2.02
102	33.700	-2.17

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

MAGRUDER - Fertilizer Check Sample No. - 200110 Grade 10-34-0 (A), 0-0-50 (B)

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index
--	Method 041.XX --	
007	33.000 s	-3.61
401	15.300 s	-35.55
415	14.046 s	-37.82
288	12.530 s	-40.57
--	Method 048.50 --	
387	36.650	.71
--	Method 050.00 --	
009	51.705	2.09
028	51.610	1.86
095	51.335	1.21
057	51.230	.97
211	51.160	.79
043	51.095	.70
220	50.975	.42
326	50.945	.39
350	50.910	.23
148	50.895	.17
Avg	50.825	
029	50.770	-.13
392	50.730	-.31
416	50.824	-.34
162	50.690	-.37
345	50.635	-.47
296	50.605	-.58
231	50.570	-.61
072	50.445	-.92
073	50.325	-1.18
090	50.325	-1.22
372	50.290	-1.26
414	50.075	-1.77
--	Method 050.10 --	
322	50.586	.71
--	Method 050.30 --	
114	53.760 S	4.13
--	Method 050.30 --	
095	51.760	1.08
157	51.765	1.07
136	51.650	.90
142	51.110	.15
Avg	51.067	
137	50.510	-.85
193	50.500	-.87
405	50.175	-1.37
040	49.945 R	-1.99
351	48.223 S	-4.36
381	48.950 s	-4.96
--	Method 050.31 --	
233	51.250	.71
--	Method 050.50 --	
354	52.299	1.41
Avg	51.615	
324	51.445	-.38
361	51.100	-.62
--	Method 050.51 --	
389	52.700	1.22
393	52.285	.88
023	51.845	.62
Avg	51.134	
007	50.550	-.46
251	50.125	-.80
102	49.300	-1.41
--	Method 050.60 --	
390	53.380 s	6.33
169	51.410	1.40
288	50.890	.49
105	50.635	.05
Avg	50.614	
200	50.280	-.69
415	49.856	-1.35
--	Method 050.60 --	
309	48.000 S	-4.61
--	Method 050.61 --	
024	52.450	1.71
041	52.255	1.24
049	52.105	.92
030	51.750	.20
Avg	51.661	
037	51.460	-.40
029	51.295	-.72
035	51.230	-.86
025	51.200	-.93
028	51.205	-.93
--	Method 050.99 --	
360	55.090 s	4.53
387	53.250 X	2.65
362	52.140 R	1.70
363	51.390 R	.97
260	51.390	.76
325	51.355	.70
394	51.170	.52
177	50.790	.13
300	50.720	.06
Avg	50.669	
232	50.635 X	-.07
027	50.520	-.15
262	50.450	-.23
247	50.370	-.31
369	50.230	-.58
330	49.810	-.93
395	49.350	-1.35
376	49.320	-1.38
401	39.650 s	-11.37
--	Method 050.XX --	
360	55.090 s	5.74
390	53.380 s	4.62
--	Method 050.XX --	
114	53.760 s	3.91
387	53.250 A	3.22
389	52.700	2.48
354	52.299 R	2.31
024	52.450	2.16
362	52.140 R	1.99
393	52.285	1.87
041	52.255	1.85
049	52.105	1.64
023	51.845	1.37
095	51.760	1.17
157	51.765	1.16
030	51.750	1.14
009	51.705	1.08
363	51.390 R	1.07
136	51.650	1.00
028	51.610	.95
324	51.445	.81
037	51.460	.74
260	51.390	.68
169	51.410	.67
325	51.355	.60
095	51.335	.57
233	51.250	.57
029	51.295	.51
057	51.230	.43
035	51.230	.43
028	51.205	.42
025	51.200	.40
394	51.170	.36
211	51.160	.33
043	51.095	.29
142	51.110	.29
361	51.100	.25
326	50.945	.16
220	50.975	.15
Avg	50.923	
148	50.895	-.04
--	Method 050.XX --	
288	50.890	-.05
350	50.910	-.07
177	50.790	-.19
029	50.770	-.21
416	50.824	-.24
300	50.720	-.28
392	50.730	-.29
162	50.690	-.34
105	50.635	-.40
232	50.635 X	-.41
345	50.635	-.41
296	50.605	-.46
322	50.586	-.48
231	50.570	-.49
007	50.550	-.55
027	50.520	-.55
137	50.510	-.57
193	50.500	-.58
262	50.450	-.65
072	50.445	-.67
247	50.370	-.76
073	50.325	-.82
090	50.325	-.84
372	50.290	-.87
200	50.280	-.93
405	50.175	-1.03
369	50.230	-1.07
251	50.125	-1.16
414	50.075	-1.17
415	49.856	-1.48
330	49.810	-1.59
040	49.945 R	-1.62
395	49.350	-2.17
376	49.320	-2.21
102	49.300	-2.24
351	48.223 s	-3.72
309	48.000 s	-4.02
381	48.950 s	-4.33

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

MAGRUDER - Fertilizer Check Sample No. - 200110 Grade 10-34-0 (A), 0-0-50 (B)

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index
--	Method 050.XX --	
401	39.650 s	-15.64
--	Method 060.00 --	
193	0.2465	1.16
363	0.1900	.68
Avg	0.1485	
416	0.1124	-.44
362	0.0450	-1.22
--	Method 101.30 --	
009	0.2073	1.09
247	0.1950	.38
Avg	0.1938	
035	0.1790	-1.09
--	Method 101.99 --	
320	0.1918	.71
--	Method 101.XX --	
009	0.2073	1.32
247	0.1950	.45
Avg	0.1933	
320	0.1918	-.14
035	0.1790	-1.24
--	Method 121.30 --	
009	0.5882	.79
131	0.5814	.61
247	0.5650	.21
Avg	0.5593	
035	0.5025	-1.57
--	Method 121.99 --	
320	0.5557	.71
--	Method 121.XX --	
009	0.5882	.91
131	0.5814	.71
247	0.5650	.25
Avg	0.5586	
320	0.5557	-.25
035	0.5025	-1.75
--	Method 131.99 --	
040	0.0150 X	.71
--	Method 144.01 --	
262	18.845	1.80
043	18.570	1.10
296	18.500	.94
401	18.400	.65
233	18.310	.42
220	18.245	.37
351	18.280	.34
251	18.245	.25
416	18.203	.15
Avg	18.150	
102	18.101	-.14
157	18.134	-.14
405	18.075	-.20
193	17.900	-.66
073	17.825	-.89
030	17.450	-1.82
137	17.320	-2.15
372	15.030 s	-8.08
395	11.145 s	-18.14
--	Method 144.02 --	
095	18.575	.71
--	Method 144.70 --	
393	19.250 X	.87
Avg	17.863	
200	16.475	-.87
--	Method 144.99 --	
330	19.250 s	3.73
360	18.700	1.60
009	18.581	1.21
023	18.550	1.06
029	18.520 X	.92
114	18.515	.89
288	18.495	.83
057	18.465	.74
324	18.340	.40
Avg	18.224	
376	18.150	-.27
232	18.105	-.37
394	18.195	-.45
037	18.080	-.48
177	18.050	-.54
389	18.050	-.56
136	18.030	-.64
040	17.975	-.83
028	17.635	-1.81
300	17.600	-1.92
035	17.400 R	-2.81
354	15.760 s	-9.36
131	13.175 s	-15.51
--	Method 144.XX --	
330	19.250 R	3.09
393	19.250 X	2.61
262	18.845	1.57
360	18.700	1.32
009	18.581	1.00
095	18.575	.89
043	18.570	.88
023	18.550	.87
029	18.520 X	.75
296	18.500	.74
114	18.515	.73
288	18.495	.68
057	18.465	.60
--	Method 144.XX --	
401	18.400	.44
324	18.340	.32
220	18.245	.27
233	18.310	.21
351	18.280	.14
251	18.245	.06
Avg	18.230	
416	18.203	-.09
376	18.150	-.24
157	18.134	-.28
232	18.105	-.32
102	18.101	-.33
394	18.195	-.38
405	18.075	-.40
037	18.080	-.41
177	18.050	-.47
389	18.050	-.48
136	18.030	-.55
040	17.975	-.70
193	17.900	-.85
073	17.825	-1.07
028	17.635	-1.52
300	17.600	-1.61
030	17.450	-2.00
137	17.320	-2.32
035	17.400 R	-2.35
200	16.475 A	-4.48
354	15.760 s	-7.81
372	15.030 s	-8.18
131	13.175 s	-12.93
395	11.145 s	-18.11
--	Method 151.30 --	
232	11.350 S	243.00
389	0.1800	.87
Avg	0.1400	
096	0.1000	-.87
--	Method 151.99 --	
040	0.1000	1.02
Avg	0.0550	
376	0.0100	-.68
--	Method 151.XX --	
232	11.350 s	148.11
389	0.1800	1.10
040	0.1000 R	.66
096	0.1000	.04
Avg	0.0967	
376	0.0100	-1.14
--	Method 181.30 --	
376	1.6000	.00
--	Method 190.00 --	
372	2.3400 s	6.24
137	1.4400	2.54
395	1.4100	2.41
262	1.2000	1.55
251	1.0300	.85
220	0.9250 R	.44
Avg	0.8230	
023	0.8100	-.07
392	0.7875	-.15
029	0.7600	-.26
027	0.7500	-.30
043	0.7450	-.32
296	0.7350	-.38
040	0.7300	-.38
028	0.7100	-.47
105	0.7050	-.49
363	0.6850	-.58
200	0.6750	-.61
394	0.6750	-.61
057	0.6700	-.63
300	0.6690	-.64
102	0.6636	-.66

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index
--	Method 190.00 --	
389	0.6100	-.88
--	Method 190.99 --	
405	1.3450	1.83
387	1.1600 X	1.14
Avg	0.8495	
288	0.7550	-.35
360	0.6900	-.59
136	0.6775	-.63
009	0.6640	-.68
095	0.6550	-.72
--	Method 190.XX --	
372	2.3400 s	6.08
137	1.4400	2.46
395	1.4100	2.34
405	1.3450	2.07
262	1.2000	1.49
387	1.1600 X	1.33
251	1.0300	.81
220	0.9250 R	.41
Avg	0.8299	
023	0.8100	-.09
392	0.7875	-.18
029	0.7600	-.28
288	0.7550	-.31
027	0.7500	-.32
043	0.7450	-.34
296	0.7350	-.39
040	0.7300	-.40
028	0.7100	-.48
105	0.7050	-.50
360	0.6900	-.57
363	0.6850	-.59
136	0.6775	-.61
394	0.6750	-.62
200	0.6750	-.62
057	0.6700	-.64
--	Method 190.XX --	
300	0.6690	-.65
009	0.6640	-.67
102	0.6636	-.67
095	0.6550	-.70
389	0.6100	-.89
--	Method 191.30 --	
009	3.3050	.87
Avg	2.4025	
247	1.5000	-.86
--	Method 202.00 --	
072	21.400 S	.00
--	Method 202.30 --	
040	0.8800 X	1.03
Avg	0.5025	
389	0.1250	-.66
--	Method 202.99 --	
409	0.5000	.83
Avg	0.3750	
320	0.2500	-.90
--	Method 202.XX --	
072	21.400 s	122.31
040	0.8800 R	4.26
409	0.5000	1.20
Avg	0.2917	
320	0.2500	-.37
389	0.1250	-.96
--	Method 221.00 --	
029	0.0030 X	.99
072	0.0022	.35
Avg	0.0021	
157	0.0010	-1.18
--	Method 221.30 --	
354	0.0041 s	11.97
057	0.0020 R	2.17
247	0.0019	1.89
040	0.0016	.52
009	0.0016	.45
Avg	0.0015	
389	0.0015	-.28
330	0.0015	-.28
232	0.0014	-.35
096	0.0014	-.40
035	0.0011	-1.74
--	Method 221.99 --	
409	0.0021	.87
Avg	0.0018	
028	0.0016	-.87
--	Method 221.XX --	
354	0.0041 s	5.00
029	0.0030 X	2.68
072	0.0022 R	1.30
409	0.0021	.80
057	0.0020	.67
247	0.0019	.53
Avg	0.0016	
040	0.0016	-.08
009	0.0016	-.14
028	0.0016	-.22
330	0.0015	-.40
389	0.0015	-.40
232	0.0014	-.47
096	0.0014	-.49
035	0.0011	-1.08
157	0.0010	-1.38
--	Method 241.30 --	
009	0.0720	1.34
247	0.0600	.09
--	Method 241.30 --	
Avg	0.0591	
057	0.0578	-.14
035	0.0466	-1.30
--	Method 241.99 --	
320	0.0424	.71
--	Method 241.XX --	
009	0.0720	1.34
247	0.0600	.09
Avg	0.0591	
057	0.0578	-.14
035	0.0466	-1.30
320	0.0424 R	-1.79
--	Method 251.00 --	
200	18.500 X	.71
--	Method 251.30 --	
389	1.5000	.71
--	Method 251.99 --	
376	7.2500	1.25
Avg	3.5617	
409	2.5500	-.34
040	0.8850 X	-.91
--	Method 251.XX --	
200	18.500 R	5.86
376	7.2500	1.57
Avg	3.0463	
409	2.5500	-.19
389	1.5000	-.58
040	0.8850 X	-.81
--	Method 261.30 --	
057	0.0012	.97
009	0.0011	.48
247	0.0010	.12
Avg	0.0010	
035	0.0007	-1.52
--	Method 261.99 --	
320	0.0008	.00
--	Method 261.XX --	
057	0.0012	1.20
009	0.0011	.68
247	0.0010	.26
Avg	0.0009	
320	0.0008	-.70
035	0.0007	-1.43
--	Method 281.30 --	
040	1.9900 X	.71
--	Method 281.99 --	
376	0.0400	.20
Avg	0.0375	
040	0.0350 X	-1.21
--	Method 281.XX --	
040	1.9900 X	1.36
Avg	0.6883	
376	0.0400	-.57
040	0.0350 X	-.57
--	Method 289.30 --	
389	0.6500	.71
--	Method 289.99 --	
009	2.3700	1.18
Avg	2.0250	
040	1.6800 X	-.34

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index
--	Method 289.XX --	
009	2.3700	1.33
040	1.6800 X	.13
Avg	1.5667	
389	0.6500	-.85
--	Method 291.30 --	
009	2.0950 R	8.25
096	1.1000	.96
232	1.0050	.27
Avg	0.9683	
376	0.8000	-1.23
--	Method 291.99 --	
409	2.0000	.00
--	Method 291.XX --	
009	2.0950 R	1.78
409	2.0000	1.57
Avg	1.2263	
096	1.1000	-.26
232	1.0050	-.45
376	0.8000	-.87
--	Method 301.99 --	
131	0.0800	1.59
Avg	0.0318	
040	0.0250	-.27
389	0.0120	-.64
376	0.0100	-.70
--	Method 311.99 --	
009	0.3100	1.37
320	0.2751	.18
Avg	0.2706	
035	0.2625	-.28
247	0.2350	-1.23
--	Method 321.00 --	
072	0.0011	.94
029	0.0010	.28
Avg	0.0010	
157	0.0008	-1.24
--	Method 321.30 --	
330	0.5000 s	249.00
040	0.0080	1.98
389	0.0051 R	1.67
354	0.0044	.82
232	0.0026	.13
Avg	0.0024	
096	0.0005	-.66
035	0.0005	-.66
057	0.0005	-.68
009	0.0003	-.75
--	Method 321.99 --	
262	0.0215 S	23.93
320	0.0012	.71
Avg	0.0012	
--	Method 321.XX --	
330	0.5000 s	301.41
262	0.0215 s	8.37
040	0.0080	2.61
389	0.0051 R	2.15
354	0.0044	1.18
232	0.0026	.32
Avg	0.0019	
072	0.0011	-.34
029	0.0010	-.38
320	0.0012	-.39
157	0.0008	-.49
035	0.0005	-.58
096	0.0005	-.58
057	0.0005	-.60
009	0.0003	-.69

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

MAGRUDER - Fertilizer Check Sample No. - 200110 Grade 10-34-0 (A), 0-0-50 (B)

Method Evaluation - Z Values Based on 1 Reports

Method Code	Number Of Labs	Avg Bias of Labs	Std Dev of Biases	Std Dev Within Labs	Method Code	Number Of Labs	Avg Bias of Labs	Std Dev of Biases	Std Dev Within Labs
001.99	4	0.0000	1.05	0.20	144.70	2	0.0000	1.22	0.02
001.XX	5	0.0000	1.04	0.21	144.99	22	-1.0197	3.82	1.31
009.10	3	0.0000	0.99	0.42	144.XX	43	-1.1513	3.81	0.79
009.XX	3	0.0000	0.99	0.42	151.30	3	80.9012	140.13	6.87
010.11	12	-0.1656	1.17	0.32	151.99	2	0.0000	0.96	0.54
010.12	5	0.0000	1.06	0.07	151.XX	5	29.5955	66.16	3.25
010.17	4	0.0000	1.05	0.21	190.00	22	0.3026	1.64	0.06
010.60	41	-0.3205	2.01	0.52	190.99	7	0.0000	1.04	0.04
010.99	7	0.0000	1.01	0.24	190.XX	29	0.2228	1.49	0.06
010.XX	64	-0.1627	1.32	0.79	191.30	2	0.0000	1.21	0.11
020.10	8	-0.6753	1.96	0.58	191.XX	2	0.0000	1.21	0.11
020.20	15	-0.3292	1.90	0.14	202.30	2	0.0000	0.94	0.56
020.40	4	0.0000	0.99	0.36	202.99	2	0.0000	1.18	0.24
020.50	3	8.0139	78.33	23.77	202.XX	5	24.9797	53.99	6.34
020.XX	32	-0.2507	2.28	0.63	221.00	3	0.0000	1.10	0.18
040.20	2	0.0000	0.43	0.81	221.30	10	1.3723	3.78	0.88
040.XX	3	0.0000	0.85	0.60	221.99	2	0.0000	1.20	0.17
041.10	14	0.2711	1.40	0.23	221.XX	15	0.4016	1.58	0.35
041.20	2	0.0000	0.00	0.00	241.30	4	0.0000	1.08	0.03
041.40	5	-0.7966	2.01	0.30	241.XX	5	-0.3471	1.22	0.20
041.50	8	-0.1164	1.26	0.43	251.99	3	0.0000	1.12	0.01
041.60	9	-5.2300	15.72	0.13	251.XX	5	1.1566	2.75	0.42
041.99	2	-86.7532	122.69	0.80	261.30	4	0.0000	1.07	0.13
041.XX	36	-3.2873	10.69	0.33	261.XX	5	0.0000	1.05	0.12
050.00	22	0.0000	1.00	0.18	281.99	2	0.0000	0.28	0.84
050.30	11	-0.4722	2.31	1.17	281.XX	2	-0.1415	0.60	0.71
050.50	3	0.0000	0.74	0.69	289.99	2	0.0000	0.46	0.80
050.51	6	0.0000	1.03	0.18	289.XX	3	0.0000	0.80	0.64
050.60	7	0.0382	2.87	1.53	291.30	4	2.0534	4.21	0.38
050.61	9	0.0000	0.98	0.30	291.XX	5	0.3536	1.22	0.10
050.99	18	-0.2503	3.09	0.45	301.99	4	0.0000	1.06	0.18
050.XX	75	-0.1141	2.37	0.66	301.XX	4	0.0000	1.06	0.18
060.00	4	0.0000	1.04	0.24	311.99	4	0.0000	1.07	0.15
060.XX	4	0.0000	1.04	0.24	311.XX	4	0.0000	1.07	0.15
101.30	3	0.0000	1.03	0.35	321.00	3	0.0000	1.10	0.18
101.XX	4	0.0000	1.00	0.35	321.30	9	19.6220	58.52	58.83
121.30	4	0.0000	1.06	0.18	321.99	2	11.9619	16.92	0.65
121.XX	5	0.0000	1.03	0.21	321.XX	13	17.0069	58.86	59.22
144.01	18	-1.4569	4.67	0.14					