MAGRUDER - Fertilizer Check Sample No. - 200111 Grade 5-10-15

Method	AOAC Ref.	Method Code	- Pass 1 Results for 79 Labs - No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups	- Pass 2 Results for 78 Labs - No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups
Ammoniacal Nitrogen, MgO Distillation .	920.03	001.10	1	6.0200	0.0283	0.0400	1	6.0200	0.0283	0.0400
Ammoniacal Nitrogen, Other		001.99	4	5.3338	0.8297	0.1125	3	5.3733	0.9708	0.0267
Method Group 001.XX PCT			5	5.4710	0.7869	0.0980	4	5.5350	0.8735	0.0300
Nitrate Nitrogen, Other		002.99	1	0.0350	0.0071	0.0100	1	0.0350	0.0071	0.0100
Ammon & Nitrate N, Devarda	892.01	009.10	6	5.3261	0.5776	0.0257	5	5.4010	0.6082	0.0140
Total Nitrogen, Reduced Iron		010.10	1	6.3800	0.0566	0.0800	1	6.3800	0.0566	0.0800
Total Nitrogen, Modified Comprehensive	978.02	010.11	10	6.3781	0.0938	0.0848	10	6.3781	0.0938	0.0848
Total Nitrogen, Salicylic	955.04D	010.12	7	6.3575	0.0659	0.0469	7	6.3575	0.0659	0.0469
Total Nitrogen, Comprehensive	970.02	010.17	1	6.3400	0.0990	0.1400	1	6.3400	0.0990	0.1400
Total Nitrogen, Combustion		010.60	45	6.4481	0.1716	0.0980	43	6.4415	0.1639	0.0816
Total Nitrogen, Other		010.99	5	6.3993	0.1817	0.0631	4	6.3729	0.1823	0.0113
Method Group 010.XX PCT			69	6.4227	0.1561	0.0887	67	6.4177	0.1494	0.0779
Total Phosphate, Grav Quimociac	962.02	020.10	8	12.723	0.2524	0.2038	8	12.723	0.2524	0.2038
Total Phosphate, Spectrometric	958.01	020.20	15	12.633	0.1550	0.0728	14	12.638	0.1490	0.0480
Total Phosphate, Alka. Quimociac	969.02	020.30	1	12.586	0.0657	0.0929	1	12.586	0.0657	0.0929
Total Phosphate, Automated	978.01	020.40	7	12.784	0.2285	0.1643	6	12.767	0.1978	0.0800
Total Phosphate, ICP		020.50	3	12.832	0.3744	0.0197	3	12.832	0.3744	0.0197
Total Phosphate, Other		020.99	1	12.750	0.0283	0.0400	1	12.750	0.0283	0.0400
Method Group 020.XX PCT			35	12.703	0.2223	0.1161	32	12.709	0.2104	0.0792
Insoluble Phosphate, Grav Quimociac ...	963.03C	030.10	1	0.0700	0.0000	0.0000	1	0.0700	0.0000	0.0000
Insoluble Phosphate, Spectrometric	963.03C	030.20	2	0.0850	0.0191	0.0100	2	0.0850	0.0191	0.0100
Insoluble Phosphate, Automated	978.01	030.40	2	0.0700	0.0082	0.0100	2	0.0700	0.0082	0.0100
Insoluble Phosphate, Other		030.99	1	0.0595	0.0233	0.0330	1	0.0595	0.0233	0.0330
Method Group 030.XX PCT			6	0.0733	0.0161	0.0122	6	0.0733	0.0161	0.0122
InDir Available Phosphate, Grav Quim ..	960.02	040.10	1	12.895	0.0636	0.0900	1	12.895	0.0636	0.0900
InDir Available Phosphate, Spectrometri	960.02	040.20	2	12.690	0.0920	0.0500	2	12.690	0.0920	0.0500
InDir Available Phosphate, Automated ..	960.02	040.40	4	12.659	0.3638	0.2275	4	12.659	0.3638	0.2275
InDir Available Phosphate, Other		040.99	1	12.540	0.0849	0.1200	1	12.540	0.0849	0.1200
Method Group 040.XX PCT			8	12.681	0.2707	0.1525	7	12.663	0.2526	0.0771
Dir Available Phosphate, Grav Quim	960.03E	041.10	16	12.729	0.1415	0.0963	16	12.729	0.1415	0.0963
Dir Available Phosphate, Spectrometric	960.03D	041.20	3	12.798	0.6185	0.0638	3	12.798	0.6185	0.0638
Dir Available Phosphate, Alka. Quim ...	960.03C	041.30	1	12.660	0.1697	0.2400	1	12.660	0.1697	0.2400
Dir Available Phosphate, Automated	978.01	041.40	5	12.664	0.1543	0.0390	5	12.664	0.1543	0.0390
Dir Available Phosphate, ICP		041.50	8	12.705	0.5050	0.2249	8	12.705	0.5050	0.2249
Dir Available Phosphate, EDTA Extract .	993.01	041.60	8	12.569	0.2785	0.0797	8	12.569	0.2785	0.0797
Dir Available Phosphate, Other		041.99	1	13.050	0.0707	0.1000	1	13.050	0.0707	0.1000
Method Group 041.XX PCT			43	12.683	0.3314	0.1266	41	12.696	0.3179	0.0994
Water Soluble Phosphate, Grav Quimociac	962.03	048.10	1	9.9550	0.2475	0.3500	1	9.9550	0.2475	0.3500
Water Soluble Phosphate, Spectrometric	970.01	048.20	2	9.8350	0.3688	0.2900	2	9.8350	0.3688	0.2900

Method	AOAC Ref.	Method Code	- Pass 1 Results for 79 Labs - No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups	- Pass 2 Results for 78 Labs - No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups
Water Soluble Phosphate, Other		048.99	2	11.033	0.6422	0.2550	2	11.033	0.6422	0.2550
Method Group 048.XX PCT			5	10.338	0.7410	0.2880	5	10.338	0.7410	0.2880
Soluble Potash, STPB Oxalate	958.02	050.00	24	15.455	0.2461	0.0825	23	15.447	0.2460	0.0730
Soluble Potash, STPB Citrate	969.04	050.10	1	16.061	0.1547	0.2188	1	16.061	0.1547	0.2188
Soluble Potash, AA (Oxalate)		050.30	7	15.105	0.3827	0.1047	7	15.105	0.3827	0.1047
Soluble Potash, ICP (Oxalate)		050.50	4	15.128	0.2620	0.0753	4	15.128	0.2620	0.0753
Soluble Potash, ICP (Citrate)		050.51	7	15.381	0.3205	0.1114	7	15.381	0.3205	0.1114
Soluble Potash, Flame (Oxalate)	983.02(a	050.60	4	15.257	0.4901	0.0677	4	15.257	0.4901	0.0677
Soluble Potash, Flame (Citrate)	983.02(b	050.61	7	15.512	0.2315	0.1386	6	15.458	0.1657	0.0700
Soluble Potash, Other		050.99	16	15.458	0.3665	0.1490	15	15.428	0.3496	0.1196
Method Group 050.XX PCT			72	15.397	0.3703	0.1101	69	15.381	0.3647	0.0932
Free Water, Vacuum Oven	965.08B	060.00	4	1.0589	0.1451	0.0335	4	1.0589	0.1451	0.0335
Free Water, Other		060.99	1	1.2700	0.0141	0.0200	1	1.2700	0.0141	0.0200
Method Group 060.XX PCT			5	1.1011	0.1559	0.0308	5	1.1011	0.1559	0.0308
Acid Soluble Calcium, AA	945.04	101.00	1	10.150	0.5515	0.7800	1	10.150	0.5515	0.7800
Acid Soluble Calcium, ICP		101.30	5	11.960	0.6814	0.2269	5	11.960	0.6814	0.2269
Acid Soluble Calcium, Titrimetric	945.03	101.70	1	11.700	0.2828	0.4000	1	11.700	0.2828	0.4000
Acid Soluble Calcium, Other		101.99	1	11.565	0.0071	0.0100	1	11.565	0.0071	0.0100
Method Group 101.XX PCT			8	11.652	0.8182	0.2906	8	11.652	0.8182	0.2906
Acid Soluble Magnesium, AA	984.01	121.00	19	1.9710	0.0673	0.0318	19	1.9710	0.0673	0.0318
Acid Soluble Magnesium, ICP		121.30	17	2.0231	0.0825	0.0465	17	2.0231	0.0825	0.0465
Acid Soluble Magnesium, Titrimetric ...	964.01	121.70	1	2.0417	0.0136	0.0192	1	2.0417	0.0136	0.0192
Method Group 121.XX PCT			38	1.9892	0.0903	0.0380	37	1.9968	0.0781	0.0382
Water Soluble Magnesium, AA		131.00	2	0.6700	0.2776	0.0200	2	0.6700	0.2776	0.0200
Sulfur, Gravimetric	980.02a	144.01	9	6.4626	0.1440	0.0317	8	6.4724	0.1479	0.0177
Sulfur, Gravimetric	980.02b	144.02	1	6.5300	0.0849	0.1200	1	6.5300	0.0849	0.1200
Sulfur, Gravimetric	980.02c	144.03	1	6.4300	0.0141	0.0200	1	6.4300	0.0141	0.0200
Sulfur, Other		144.99	20	6.4321	0.1874	0.1275	19	6.4485	0.1705	0.1122
Method Group 144.XX PCT			31	6.4440	0.1697	0.0960	29	6.4552	0.1554	0.0748
Arsenic, ICP		151.30	3	6.0036	0.6441	0.4188	3	6.0036	0.6441	0.4188
Arsenic, Other		151.99	1	5.7000	0.2828	0.4000	1	5.7000	0.2828	0.4000
Method Group 151.XX PPM			4	5.9277	0.5723	0.4141	4	5.9277	0.5723	0.4141
Acid Soluble Boron, Spectrometric	982.01	165.00	9	0.0276	0.0053	0.0011	9	0.0276	0.0053	0.0011
Acid Soluble Boron, Other		165.99	10	0.0248	0.0046	0.0019	9	0.0239	0.0037	0.0012
Method Group 165.XX PCT			19	0.0261	0.0051	0.0015	17	0.0249	0.0033	0.0011
Cadmium, Atomic Absorption		181.00	2	1.3950	0.1237	0.0300	2	1.3950	0.1237	0.0300
Cadmium, ICP		181.30	7	1.3634	0.3235	0.1476	6	1.3656	0.3350	0.0889
Cadmium, Other		181.99	1	1.4000	0.0000	0.0000	1	1.4000	0.0000	0.0000
Method Group 181.XX PPM			10	1.3734	0.2725	0.1094	9	1.3760	0.2749	0.0659

Method	AOAC Ref.	Method Code	- Pass 1 Results for 79 Labs - No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups	- Pass 2 Results for 78 Labs - No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups
Water Soluble Chlorine, Titrimetric ...	928.02	190.00	16	2.3724	0.2229	0.0447	15	2.3549	0.2182	0.0376
Water Soluble Chlorine, Other		190.99	7	2.1559	0.1369	0.0194	6	2.1627	0.1463	0.0076
Method Group 190.XX PCT			23	2.3065	0.2231	0.0370	21	2.2716	0.1991	0.0267
Chromium, Atomic Absorption		191.00	1	59.000	0.0000	0.0000	1	59.000	0.0000	0.0000
Chromium, ICP		191.30	4	54.175	5.9455	3.8654	4	54.175	5.9455	3.8654
Method Group 191.XX PPM			5	55.140	5.6242	3.0923	5	55.140	5.6242	3.0923
Acid Soluble Cobalt, AA		202.00	1	5.3912	0.0863	0.1221	1	5.3912	0.0863	0.1221
Acid Soluble Cobalt, ICP	965.11	202.30	6	6.3787	1.9197	0.2240	6	6.3787	1.9197	0.2240
Acid Soluble Cobalt, Other		202.99	2	5.9500	4.5618	0.1000	2	5.9500	4.5618	0.1000
Method Group 202.XX PPM			9	6.1737	2.4841	0.1851	8	5.6585	2.1052	0.1270
Acid Soluble Copper, Atomic Absorption	975.01	221.00	18	0.0565	0.0048	0.0025	16	0.0567	0.0047	0.0015
Acid Soluble Copper, ICP		221.30	19	0.0556	0.0051	0.0031	18	0.0553	0.0048	0.0024
Acid Soluble Copper, Other		221.99	2	0.0519	0.0007	0.0007	2	0.0519	0.0007	0.0007
Method Group 221.XX PCT			39	0.0558	0.0049	0.0027	35	0.0558	0.0047	0.0017
Acid Soluble Iron, Atomic Absorption ..	980.01	241.00	17	0.5961	0.0334	0.0133	16	0.5935	0.0319	0.0110
Acid Soluble Iron, ICP		241.30	21	0.5752	0.0653	0.0179	19	0.5809	0.0589	0.0131
Acid Soluble Iron, Other		241.99	1	0.4854	0.0057	0.0080	1	0.4854	0.0057	0.0080
Method Group 241.XX PCT			40	0.5775	0.0619	0.0156	37	0.5789	0.0583	0.0120
Lead, Atomic Absorption		251.00	1	12.963	0.0394	0.0557	1	12.963	0.0394	0.0557
Lead, ICP		251.30	9	12.254	2.5152	0.8008	9	12.254	2.5152	0.8008
Lead, Other		251.99	1	15.500	0.2828	0.4000	1	15.500	0.2828	0.4000
Method Group 251.XX PPM			11	12.613	2.4579	0.6966	11	12.613	2.4579	0.6966
Acid Soluble Manganese, AA	972.02a	261.00	12	0.0630	0.0074	0.0041	11	0.0621	0.0065	0.0029
Acid Soluble Manganese, AA	972.02b	261.11	4	0.0599	0.0024	0.0031	4	0.0599	0.0024	0.0031
Acid Soluble Manganese, ICP	972.02a	261.30	18	0.0539	0.0058	0.0017	17	0.0538	0.0060	0.0014
Acid Soluble Manganese, Other		261.99	3	0.0525	0.0063	0.0028	3	0.0525	0.0063	0.0028
Method Group 261.XX PCT			38	0.0576	0.0078	0.0033	35	0.0566	0.0066	0.0020
Mercury, Other		281.99	1	0.0200	0.0000	0.0000	1	0.0200	0.0000	0.0000
Molybdenum, ICP		289.30	7	5.3331	0.6421	0.2295	7	5.3331	0.6421	0.2295
Molybdenum, Other		289.99	1	6.5000	0.7071	1.0000	1	6.5000	0.7071	1.0000
Method Group 289.XX PPM			8	5.4790	0.7413	0.3258	8	5.4790	0.7413	0.3258
Nickel, ICP		291.30	7	21.758	4.2615	0.5444	7	21.758	4.2615	0.5444
Nickel, Other		291.99	2	20.000	7.1293	2.8000	2	20.000	7.1293	2.8000
Method Group 291.XX PPM			9	21.367	4.8396	1.0457	8	22.288	4.2393	0.7264
Sodium, Atomic Absorption	983.04	311.00	1	0.2105	0.0035	0.0050	1	0.2105	0.0035	0.0050
Sodium, Other		311.99	4	0.2243	0.0179	0.0085	4	0.2243	0.0179	0.0085
Method Group 311.XX PCT			5	0.2216	0.0168	0.0078	5	0.2216	0.0168	0.0078
Acid Soluble Zinc, Atomic Absorption ..	975.02	321.00	16	0.0832	0.0051	0.0019	15	0.0832	0.0052	0.0016
Acid Soluble Zin, ICP		321.30	19	0.0825	0.0071	0.0028	18	0.0824	0.0072	0.0024

Method	AOAC Ref.	Method Code	- Pass 1 Results for 79 Labs - No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups	- Pass 2 Results for 78 Labs - No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups
Acid Soluble Zinc, Other		321.99	3	0.0750	0.0081	0.0008	3	0.0750	0.0081	0.0008
Method Group 321.XX PCT			39	0.0819	0.0070	0.0024	37	0.0821	0.0067	0.0021
Water Soluble Zinc, ICP		325.30	1	0.0787	0.0095	0.0134	1	0.0787	0.0095	0.0134

MAGRUDER - Fertilizer Check Sample No. - 200111 Grade 5-10-15

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index
--	Method 001.10	--
381	6.0200	.71
--	Method 001.99	--
096	6.6250	1.29
Avg	5.3733	
407	5.2150 R	-.25
320	4.8000	-.59
193	4.6950	-.70
--	Method 001.XX	--
096	6.6250	1.25
381	6.0200	.56
Avg	5.5350	
407	5.2150 R	-.42
320	4.8000	-.84
193	4.6950	-.96
--	Method 002.99	--
288	0.0350	-.71
--	Method 009.10	--
381	6.4050	1.65
030	5.7000	.49
Avg	5.4010	
090	4.9750	-.70
258	4.9750	-.70
392	4.9500	-.74
169	4.9514 R	-.74
--	Method 010.10	--
072	6.3800	.71
--	Method 010.11	--
415	6.4487	1.65
114	6.5100	1.54
288	6.4300	.56
322	6.4273	.52
148	6.4000	.26
Avg	6.3781	
029	6.3150	-.69
211	6.3200	-.75
220	6.3050	-.80
028	6.3250	-.98
414	6.3000	-1.05
--	Method 010.12	--
185	6.4250	1.23
137	6.4050	.73
351	6.4015	.68
Avg	6.3575	
416	6.3119	-.70
397	6.3538	-.71
162	6.3500	-.77
326	6.2550	-1.56
309	5.8000 s	-8.99
--	Method 010.17	--
102	6.3400	.71
--	Method 010.60	--
049	18.065 s	70.90
007	6.7000 R	1.99
247	6.7400	1.94
220	6.7100	1.75
040	6.4800 R	1.54
095	6.6900	1.52
360	6.6600	1.52
401	6.6800	1.46
072	6.6600	1.38
369	6.6350	1.20
361	6.5950	.95
070	6.4900	.85
025	6.5550	.74
275	6.4750	.73
377	6.5300	.73
325	6.5550	.69
029	6.5150	.46
009	6.4850	.43
142	6.4950	.36
334	6.5000	.36
262	6.4850	.31
157	6.4750	.21
389	6.4700	.18
372	6.4600	.13
Avg	6.4415	
296	6.4050	-.22
233	6.4100	-.23
330	6.4000	-.25
394	6.4000	-.26
041	6.4000	-.28
390	6.4300	-.31
232	6.3800	-.39
028	6.3900	-.40
131	6.3750	-.41
324	6.3900	-.44
234	6.3600	-.51
024	6.3950	-.70
407	6.3100	-.81
023	6.3150	-.82
381	6.3700	-.96
027	6.2800	-1.00
136	6.2700	-1.11
231	6.2600	-1.11
057	6.1950	-1.50
035	6.1650	-1.69
043	6.1650	-1.71
292	6.0600	-2.33
393	3.9195 s	-21.66
--	Method 010.99	--
405	6.6600	1.58
024	6.5050 R	1.04
Avg	6.3729	
153	6.3285	-.25
362	6.2850	-.48
177	6.2180	-.85
072	4.9950 S	-7.57
--	Method 010.XX	--
049	18.065 s	77.98
007	6.7000 R	2.32
247	6.7400	2.28
220	6.7100	2.07
095	6.6900	1.83
360	6.6600	1.81
401	6.6800	1.76
040	6.4800 R	1.72
072	6.6600	1.67
405	6.6600	1.62
369	6.6350	1.47
361	6.5950	1.20
024	6.5050	1.08
070	6.4900	1.00
025	6.5550	.97
415	6.4487	.95
377	6.5300	.92
325	6.5550	.92
275	6.4750	.86
114	6.5100	.74
029	6.5150	.66
009	6.4850	.58
334	6.5000	.55
142	6.4950	.54
262	6.4850	.48
157	6.4750	.39
389	6.4700	.36
390	6.4300	.34
185	6.4250	.31
372	6.4600	.29
288	6.4300	.11
322	6.4273	.06
Avg	6.4177	
--	Method 010.XX	--
137	6.4050	-.09
296	6.4050	-.09
351	6.4015	-.12
330	6.4000	-.12
148	6.4000	-.14
394	6.4000	-.14
233	6.4100	-.14
041	6.4000	-.18
232	6.3800	-.29
131	6.3750	-.29
028	6.3900	-.33
072	6.3800	-.37
324	6.3900	-.38
234	6.3600	-.41
397	6.3538	-.53
162	6.3500	-.56
153	6.3285	-.60
029	6.3150	-.69
102	6.3400	-.70
211	6.3200	-.71
416	6.3119	-.71
024	6.3950	-.72
407	6.3100	-.73
023	6.3150	-.75
220	6.3050	-.76
028	6.3250	-.80
414	6.3000	-.88
362	6.2850	-.89
027	6.2800	-.94
381	6.3700	-.99
231	6.2600	-1.06
136	6.2700	-1.07
326	6.2550	-1.09
177	6.2180	-1.34
057	6.1950	-1.49
035	6.1650	-1.70
043	6.1650	-1.72
292	6.0600	-2.40

* 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 010.XX --	
309	5.8000 s	-4.35
072	4.9950 s	-9.54
393	3.9195 s	-23.66
--	Method 020.10 --	
095	12.980	1.20
114	12.930	1.01
090	12.965	.97
148	12.790	.27
Avg	12.723	
162	12.670	-.67
414	12.530	-.77
030	12.450	-1.10
300	12.470	-1.33
--	Method 020.20 --	
392	12.930	1.96
334	12.800	1.09
231	12.800	1.09
369	12.735	.67
362	12.710	.63
292	12.695	.42
220	12.685	.33
Avg	12.638	
288	12.585	-.39
169	12.552	-.69
232	12.520	-.80
324	12.515	-.90
309	12.500	-.93
372	12.475	-1.11
234	12.430	-1.41
390	12.570 R	-1.48
--	Method 020.30 --	
416	12.586	.71
--	Method 020.40 --	
407	12.885 R	1.80
394	13.000	1.23
142	12.920	.78
247	12.865	.55
Avg	12.767	
096	12.740	-.14
035	12.600	-.93
193	12.475	-1.48
--	Method 020.50 --	
361	13.265	1.16
Avg	12.832	
330	12.800	-.10
157	12.430	-1.07
381	11.650 S	-3.16
389	11.150 S	-4.49
--	Method 020.99 --	
320	12.750	.71
Avg	12.750	
153	5.5396 S	-254.93
--	Method 020.XX --	
361	13.265	2.64
407	12.885 R	1.80
095	12.980	1.50
394	13.000	1.42
114	12.930	1.27
090	12.965	1.24
392	12.930	1.05
142	12.920	1.01
247	12.865	.77
330	12.800	.44
231	12.800	.43
334	12.800	.43
148	12.790	.39
362	12.710	.29
320	12.750	.22
369	12.735	.17
--	Method 020.XX --	
096	12.740	.16
Avg	12.709	
220	12.685	-.13
292	12.695	-.14
288	12.585	-.60
416	12.586	-.62
035	12.600	-.64
162	12.670	-.78
169	12.552	-.79
414	12.530	-.85
232	12.520	-.90
324	12.515	-.96
309	12.500	-.99
193	12.475	-1.11
372	12.475	-1.12
390	12.570 R	-1.20
030	12.450	-1.25
157	12.430	-1.32
234	12.430	-1.33
300	12.470 R	-1.54
381	11.650 s	-5.04
389	11.150 s	-7.41
153	5.5396 s	-34.08
--	Method 030.10 --	
090	0.0700	.00
--	Method 030.20 --	
247	0.1000	.94
Avg	0.0850	
220	0.0700	-.78
--	Method 030.40 --	
193	0.2850 S	26.40
407	0.0750	.87
Avg	0.0700	
096	0.0650	-.87
--	Method 030.99 --	
320	0.0595	.71
--	Method 030.XX --	
193	0.2850 s	13.22
247	0.1000	1.78
407	0.0750	.33
Avg	0.0733	
220	0.0700	-.20
090	0.0700	-.20
096	0.0650	-.60
320	0.0595	-1.34
--	Method 040.10 --	
090	12.895	.71
--	Method 040.20 --	
247	12.765	.90
Avg	12.690	
220	12.615	-.83
--	Method 040.40 --	
407	12.810	1.02
394	12.965	.89
096	12.670	.04
Avg	12.659	
193	12.190	-1.29
--	Method 040.99 --	
405	12.540	.71
--	Method 040.XX --	
407	12.810 R	1.47
394	12.965	1.27
090	12.895	.94
247	12.765	.43
096	12.670	.05
Avg	12.663	
220	12.615	-.20
405	12.540	-.54
193	12.190	-1.87
--	Method 041.10 --	
041	12.915	1.62
322	12.927	1.42
296	12.885	1.22
072	12.840	.83
009	12.815	.69
211	12.790	.45
131	12.750	.45
137	12.745	.34
057	12.735	.25
Avg	12.729	
233	12.680	-.37
040	12.655	-.52
029	12.640 X	-.63
326	12.625	-.75
136	12.625	-.77
028	12.550	-1.31
414	12.485	-1.97
--	Method 041.20 --	
415	13.593	1.29
Avg	12.798	
262	12.445	-.57
362	12.355	-.72
--	Method 041.30 --	
260	12.660	-.71
--	Method 041.40 --	
027	12.808	.93
131	12.760	.68
029	12.720 X	.37
Avg	12.664	
025	12.630	-.34
072	12.400	-1.71

* 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. - 200111 Grade 5-10-15

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index
--	Method 041.40 --	
049	12.110 s	-4.31
--	Method 041.50 --	
007	13.350	1.31
361	13.275	1.13
393	13.124	.83
360	12.745	.63
Avg	12.705	
023	12.475	-.49
325	12.370	-.67
070	12.300	-.86
102	12.000	-1.41
--	Method 041.60 --	
095	12.920	1.26
296	12.810	.88
351	12.736	.65
043	12.585	.35
028	12.660	.33
Avg	12.569	
288	12.530	-.14
397	12.160 X	-1.47
377	12.150	-1.51
--	Method 041.99 --	
401	13.050	-.71
--	Method 041.XX --	
415	13.593	2.83
007	13.350	2.11
361	13.275	1.82
393	13.124	1.35
401	13.050	1.13
360	12.745 R	1.00
041	12.915	.81
322	12.927	.74
095	12.920	.71
296	12.885	.64
--	Method 041.XX --	
072	12.840	.47
009	12.815	.40
296	12.810	.39
027	12.808	.35
211	12.790	.30
131	12.750	.25
351	12.736	.25
131	12.760	.24
137	12.745	.21
057	12.735	.17
029	12.720 X	.08
Avg	12.696	
233	12.680	-.08
028	12.660	-.13
040	12.655	-.13
029	12.640 X	-.18
326	12.625	-.24
025	12.630	-.24
136	12.625	-.25
260	12.660	-.39
043	12.585	-.46
028	12.550	-.48
288	12.530	-.52
023	12.475	-.76
414	12.485	-.79
262	12.445	-.79
072	12.400	-.93
325	12.370	-1.03
362	12.355	-1.08
070	12.300	-1.34
397	12.160 X	-1.69
377	12.150	-1.72
049	12.110 R	-2.18
102	12.000	-2.21
--	Method 048.10 --	
414	9.9550	.71
362	10.105	.97
Avg	9.8350	
193	9.5650	-.75
--	Method 048.99 --	
275	11.565	.90
Avg	11.033	
247	10.500	-.83
--	Method 048.XX --	
275	11.565	1.68
247	10.500	.22
Avg	10.338	
362	10.105	-.45
414	9.9550	-.57
193	9.5650	-1.05
--	Method 050.00 --	
009	16.060	2.50
095	15.715	1.09
193	15.650 R	1.03
416	15.631	.76
043	15.630	.76
057	15.615	.75
414	15.580	.61
211	15.545	.53
072	15.570	.50
392	15.550	.42
220	15.470	.38
350	15.485	.16
162	15.470	.10
148	15.460	.07
029	15.450	.04
137	15.450	.01
Avg	15.447	
345	15.385	-.29
028	15.340	-.44
326	15.365	-.51
--	Method 050.00 --	
296	15.285	-.67
231	15.180	-1.16
131	15.115	-1.37
090	14.995	-1.84
372	14.925	-2.12
300	14.500 s	-3.85
--	Method 050.10 --	
322	16.061	.71
--	Method 050.30 --	
114	16.275 s	3.08
397	15.415	.82
234	15.390	.81
040	15.360	.69
136	15.335	.63
Avg	15.105	
142	15.015	-.24
351	14.863	-.63
095	14.355	-1.96
--	Method 050.50 --	
324	15.500	1.43
361	15.180	.21
Avg	15.128	
292	14.925	-.84
157	14.907	-.84
--	Method 050.51 --	
007	15.800	1.31
070	15.685	1.03
389	15.650	.85
Avg	15.381	
393	15.293	-.28
102	15.100	-.88
023	15.090	-1.04
377	15.050	-1.05
--	Method 050.60 --	
390	16.740 S	3.03
169	15.892	1.30
288	15.420	.33
Avg	15.257	
131	15.065	-.40
309	14.650	-1.24
--	Method 050.61 --	
041	15.835 R	2.81
035	15.715	1.55
029	15.540	.51
028	15.470	.43
Avg	15.458	
030	15.400	-.35
025	15.415	-.47
072	15.210	-1.52
049	14.515 s	-6.30
--	Method 050.99 --	
260	16.060	1.86
330	15.915 R	1.63
232	15.855	1.23
360	15.805	1.08
177	15.804	1.07
369	15.550	.62
381	15.550	.38
Avg	15.428	
401	15.400	-.08
325	15.400	-.12
153	15.304	-.35
247	15.295	-.41
362	15.240 X	-.54
394	15.170	-.78
405	15.170	-.79
275	15.050 X	-1.10
027	14.765	-1.90
262	13.150 s	-6.53

* 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. - 200111 Grade 5-10-15

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
--	Method 050.XX --		--	Method 050.XX --		--	Method 060.00 --		--	Method 101.XX --		--	Method 121.30 --	
390	16.740 s	3.73	288	15.420	.11	416	1.2505	1.32	102	12.018	.55	041	2.0800	.73
114	16.275	2.48	325	15.400	.10	362	1.1150	.39	193	11.700	.25	247	2.0550	.67
260	16.060	1.91	345	15.385	.10	Avg	1.0589		Avg	11.652		023	2.0270	.25
322	16.061	1.89	030	15.400	.05	007	0.9500	-.83	320	11.565	-.11	102	2.0379	.21
009	16.060	1.86	401	15.400	.05	361	0.9200	-.96	009	11.280	-.46	Avg	2.0231	
330	15.915 R	1.67	Avg	15.381					247	11.220	-.53	096	2.0150	-.12
041	15.835 R	1.45	028	15.340	-.12	--	Method 060.99 --		262	10.150	-1.90	057	1.9980	-.31
169	15.892	1.40	040	15.360	-.17	414	1.2700 X	.71	041	1.1000 s	-12.90	009	2.0178	-.47
232	15.855	1.30	153	15.304	-.21							035	1.9750	-.59
360	15.805	1.17	136	15.335	-.22	--	Method 060.XX --		--	Method 121.00 --		157	1.9571	-.80
177	15.804	1.16	393	15.293	-.24	414	1.2700 X	1.09	177	2.0725	1.53	389	1.9450	-.99
007	15.800	1.15	326	15.365	-.26	416	1.2505	.96	028	2.0600	1.32	360	1.9500	-1.15
035	15.715	.92	247	15.295	-.28	362	1.1150	.09	029	2.0350	.95	324	1.9300	-1.15
095	15.715	.91	296	15.285	-.28	Avg	1.1011		193	2.0250	.83	292	1.8950	-1.58
070	15.685	.90	362	15.240 X	-.40	007	0.9500	-1.02	043	2.0000	.62	381	1.6800 S	-4.16
193	15.650	.84	072	15.210	-.48	361	0.9200	-1.16	072	2.0015	.52			
389	15.650	.75	361	15.180	-.55				392	2.0050	.51	--	Method 121.70 --	
416	15.631	.69	231	15.180	-.62	--	Method 101.00 --		397	2.0031	.49	415	2.8170 S	57.91
043	15.630	.69	394	15.170	-.63	262	10.150	.71	309	2.0000	.43	416	2.0417	.71
369	15.550 R	.68	405	15.170	-.64				Avg	1.9710		Avg	2.0417	
057	15.615	.67	131	15.115	-.75	--	Method 101.30 --		390	1.9650	-.12			
414	15.580	.58	102	15.100	-.77	131	12.775	1.20	296	1.9600	-.22	--	Method 121.99 --	
072	15.570	.52	131	15.065	-.87	035	12.505	.85	136	1.9550	-.25	320	1.2200 S	.00
211	15.545	.51	023	15.090	-.91	102	12.018	.40	351	1.9465	-.38	405	1.0300 S	.00
381	15.550	.48	377	15.050	-.92	Avg	11.960		369	1.9450	-.54	Avg	0.0000	
392	15.550	.46	275	15.050 X	-.93	009	11.280	-1.00	220	1.9600	-.76			
029	15.540	.44	142	15.015	-1.01	247	11.220	-1.09	137	1.9100	-.92	--	Method 121.XX --	
220	15.470	.35	090	14.995	-1.06	041	1.1000 S	-15.94	234	1.9250	-.96	330	3.5100 s	19.47
324	15.500	.34	372	14.925	-1.25				095	1.8800	-1.38	415	2.8170 s	10.63
234	15.390	.33	292	14.925	-1.27	--	Method 101.70 --		262	1.8000	-2.58	131	2.1750	2.29
028	15.470	.31	157	14.907	-1.30	193	11.700	.71	114	1.7050 s	-3.96	231	2.1450	1.90
350	15.485	.28	351	14.863	-1.42							407	2.1200	1.62
162	15.470	.24	027	14.765	-1.70	--	Method 101.99 --		--	Method 121.30 --		394	2.0700	1.21
148	15.460	.22	309	14.650	-2.01	320	11.565	-.71	330	3.5100 s	18.10	041	2.0800	1.10
025	15.415	.20	300	14.500	-2.42				131	2.1750	1.85	177	2.0725	.99
029	15.450	.19	049	14.515 s	-2.67	--	Method 101.XX --		231	2.1450	1.48	247	2.0550	.94
137	15.450	.19	095	14.355	-2.82	131	12.775	1.37	407	2.1200	1.23	028	2.0600	.81
397	15.415	.18	262	13.150 s	-6.13	035	12.505	1.07	394	2.0700	.92	416	2.0417	.59

* 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. - 200111 Grade 5-10-15

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index
--	Method 121.XX --	
009	2.0178	.56
102	2.0379	.54
029	2.0350	.49
023	2.0270	.46
193	2.0250	.41
043	2.0000	.39
096	2.0150	.24
072	2.0015	.22
397	2.0031	.12
392	2.0050	.12
057	1.9980	.07
309	2.0000	.04
Avg	1.9968	
035	1.9750	-.29
390	1.9650	-.41
296	1.9600	-.49
157	1.9571	-.52
136	1.9550	-.54
351	1.9465	-.65
369	1.9450	-.74
389	1.9450	-.74
220	1.9600	-.80
324	1.9300	-.89
360	1.9500	-.97
234	1.9250	-1.09
137	1.9100	-1.12
292	1.8950	-1.34
095	1.8800	-1.52
262	1.8000	-2.55
114	1.7050 A	-3.74
381	1.6800 s	-4.06
320	1.2200 s	-9.95
405	1.0300 s	-12.38
--	Method 131.00 --	
220	0.9100	.87
Avg	0.6700	
193	0.4300	-.86

Lab	Average*	Index
--	Method 144.01 --	
416	6.6303	1.07
296	6.6000	.86
043	6.5950	.83
288	6.5300	.40
401	6.4750	.04
Avg	6.4724	
351	6.4540	-.13
102	6.3838 R	-.77
193	6.2800	-1.30
095	6.2150	-1.74
137	5.2000 S	-8.60
372	5.0300 S	-9.75
--	Method 144.02 --	
262	6.5300	.71
--	Method 144.03 --	
361	6.4300	.71
--	Method 144.99 --	
035	6.7500	1.93
330	6.7050	1.60
247	6.5550	.92
057	6.5200	.87
232	6.5800	.78
394	6.5600	.74
029	6.5500	.60
324	6.4650	.10
Avg	6.4485	
360	6.4250	-.14
275	6.4450	-.15
393	6.4085	-.24
231	6.3950	-.32
220	6.3900	-.58
405	6.3650	-.62
389	6.3200	-.76
177	6.2950	-1.00
009	6.4432	-1.13

Lab	Average*	Index
--	Method 144.99 --	
040	6.2200	-1.34
028	6.1300	-1.87
300	6.1200 R	-2.29
023	5.6285 s	-5.06
381	5.1000 s	-7.93
407	3.9350 s	-14.97
--	Method 144.XX --	
035	6.7500	2.07
330	6.7050	1.72
416	6.6303	1.13
247	6.5550	.98
057	6.5200	.93
296	6.6000	.93
043	6.5950	.90
232	6.5800	.81
394	6.5600	.78
262	6.5300	.62
029	6.5500	.61
288	6.5300	.49
401	6.4750	.13
324	6.4650	.07
Avg	6.4552	
351	6.4540	-.05
275	6.4450	-.17
361	6.4300	-.17
360	6.4250	-.20
393	6.4085	-.30
231	6.3950	-.39
102	6.3838	-.65
220	6.3900	-.66
405	6.3650	-.72
389	6.3200	-.88
193	6.2800	-1.13
177	6.2950	-1.14
009	6.4432 R	-1.24
040	6.2200	-1.52
095	6.2150	-1.55

Lab	Average*	Index
--	Method 144.XX --	
028	6.1300	-2.10
300	6.1200 R	-2.55
023	5.6285 s	-5.60
137	5.2000 s	-8.08
381	5.1000 s	-8.75
372	5.0300 s	-9.17
407	3.9350 s	-16.47
--	Method 151.30 --	
247	6.7500	1.22
Avg	6.0036	
096	5.7500	-.40
102	5.5108	-.92
--	Method 151.99 --	
407	5.7000	.71
--	Method 151.XX --	
247	6.7500	1.50
Avg	5.9277	
096	5.7500	-.32
407	5.7000	-.53
102	5.5108	-.93
--	Method 165.00 --	
040	0.0430 S	3.17
397	0.0407 X	2.46
137	0.0300	.44
258	0.0295	.36
Avg	0.0276	
029	0.0265	-.23
023	0.0256	-.44
220	0.0250	-.53
028	0.0245	-.60
057	0.0241	-.68
392	0.0230	-.87

Lab	Average*	Index
--	Method 165.70 --	
043	0.0400 S	.00
--	Method 165.99 --	
360	0.0325 R	2.59
324	0.0305	1.76
394	0.0288	1.31
009	0.0253	.36
Avg	0.0239	
300	0.0235	-.18
381	0.0235	-.18
407	0.0225	-.41
231	0.0225	-.41
393	0.0205	-.93
035	0.0185	-1.52
--	Method 165.XX --	
040	0.0430 s	5.81
043	0.0400 s	4.76
397	0.0407 A	4.74
360	0.0325 R	2.64
324	0.0305	1.67
137	0.0300	1.52
258	0.0295	1.38
394	0.0288	1.18
029	0.0265	.50
023	0.0256	.37
220	0.0250	.30
009	0.0253	.12
Avg	0.0249	
028	0.0245	-.20
057	0.0241	-.27
381	0.0235	-.45
300	0.0235	-.45
392	0.0230	-.57
407	0.0225	-.74
231	0.0225	-.74
393	0.0205	-1.33
035	0.0185	-1.97

* 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. - 200111 Grade 5-10-15

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index
--	Method 181.00 --	
193	2.4000 S	8.28
300	1.5000	.85
Avg	1.3950	
394	1.2900	-.88
--	Method 181.30 --	
247	1.9000	1.62
157	1.5450	.55
102	1.4438	.31
Avg	1.3656	
232	1.2500	-.38
035	1.1550	-.63
324	1.3500 R	-.75
389	0.9000	-1.39
--	Method 181.99 --	
407	1.4000	.00
--	Method 181.XX --	
193	2.4000 s	3.80
247	1.9000	1.94
157	1.5450	.64
300	1.5000	.45
102	1.4438	.35
407	1.4000	.09
Avg	1.3760	
394	1.2900	-.33
232	1.2500	-.49
035	1.1550	-.80
324	1.3500 R	-.91
389	0.9000	-1.73
--	Method 190.00 --	
234	2.8700	2.36
220	2.7100	1.66
040	2.6350 R	1.33
392	2.4990	.66
027	2.4950	.65
296	2.4250	.33
029	2.3800	.12
372	2.3600	.09
Avg	2.3549	
028	2.3000	-.27
043	2.3000	-.27
394	2.2100	-.67
102	2.2004	-.71
136	2.1935	-.74
057	2.1850	-.78
023	2.1450	-.96
262	2.0500	-1.42
--	Method 190.99 --	
405	3.6700 s	10.31
288	2.3100	1.01
397	2.2713	.74
009	2.2452	.56
Avg	2.1627	
300	2.1500	-.09
095	2.1100	-.37
360	2.1150 R	-.45
389	1.8900	-1.86
--	Method 190.XX --	
405	3.6700 s	7.03
234	2.8700	3.01
220	2.7100 R	2.23
040	2.6350 R	1.86
392	2.4990	1.14
027	2.4950	1.12
296	2.4250	.77
029	2.3800	.54
372	2.3600	.45
288	2.3100	.20
043	2.3000	.17
028	2.3000	.17
Avg	2.2716	
397	2.2713	-.01
009	2.2452	-.13
394	2.2100	-.31
102	2.2004	-.36
136	2.1935	-.39
057	2.1850	-.44
300	2.1500	-.61
023	2.1450	-.64
095	2.1100	-.81
360	2.1150	-.82
262	2.0500	-1.14
389	1.8900	-1.92
--	Method 191.00 --	
193	59.000	.00
--	Method 191.30 --	
009	61.560	1.24
096	55.950	.46
Avg	54.175	
102	50.890	-.62
035	48.300	-1.17
--	Method 191.XX --	
009	61.560	1.14
193	59.000	.69
096	55.950	.39
Avg	55.140	
102	50.890	-.81
035	48.300	-1.38
--	Method 202.00 --	
397	5.3912	.71
--	Method 202.30 --	
009	10.295	2.05
Avg	6.3787	
232	6.3000	-.07
096	6.0000	-.20
102	5.8770	-.26
247	5.0000	-.72
324	4.8000	-.82
--	Method 202.99 --	
407	9.9000	.87
Avg	5.9500	
320	2.0000	-.87
--	Method 202.XX --	
009	10.295 R	2.21
407	9.9000	2.02
232	6.3000	.31
096	6.0000	.16
102	5.8770	.11
Avg	5.6585	
397	5.3912	-.13
247	5.0000	-.32
324	4.8000	-.41
320	2.0000	-1.74
--	Method 221.00 --	
392	0.3130 s	76.89
072	0.0658	2.00
114	0.0630	1.40
369	0.0600	.70
029	0.0600	.70
397	0.0593	.55
043	0.0590	.53
193	0.0580	.51
028	0.0585	.40
Avg	0.0567	
351	0.0562	-.10
136	0.0555	-.27
390	0.0565	-.32
157	0.0521	-1.01
095	0.0518	-1.05
296	0.0515	-1.11
234	0.0550 R	-1.12
220	0.0550 R	-1.12
262	0.0500	-1.42
137	0.0500	-1.42
--	Method 221.30 --	
009	0.0714 s	3.58
041	0.0603 R	1.82
102	0.0624	1.48
330	0.0605	1.12
300	0.0595	.92
131	0.0591	.90
360	0.0576	.73
040	0.0580	.69
157	0.0583	.63
057	0.0576	.48
023	0.0570	.35
324	0.0562	.17
Avg	0.0553	
389	0.0549	-.20
231	0.0525	-.60
393	0.0525	-.60
247	0.0525	-.60
407	0.0550	-1.04
035	0.0490	-1.33
381	0.0485	-1.45
292	0.0450	-2.14
--	Method 221.99 --	
394	0.0523	.57
Avg	0.0519	
407	0.0515	-1.08
--	Method 221.XX --	
392	0.3130 s	76.67
009	0.0714 s	3.56
072	0.0658	2.18

* 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. - 200111 Grade 5-10-15

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index
--	Method 221.XX --	
041	0.0603 R	1.80
114	0.0630	1.58
102	0.0624	1.41
330	0.0605	1.05
369	0.0600	.89
029	0.0600	.89
300	0.0595	.85
131	0.0591	.84
397	0.0593	.74
043	0.0590	.71
360	0.0576	.69
040	0.0580	.63
193	0.0580	.63
028	0.0585	.59
157	0.0583	.55
057	0.0576	.40
390	0.0565	.35
023	0.0570	.26
351	0.0562	.10
324	0.0562	.08
Avg	0.0558	
136	0.0555	-.12
389	0.0549	-.26
393	0.0525	-.70
247	0.0525	-.70
231	0.0525	-.70
394	0.0523	-.74
157	0.0521	-.82
095	0.0518	-.85
296	0.0515	-.91
407	0.0515	-.92
407	0.0550 R	-1.07
220	0.0550 R	-1.07
234	0.0550 R	-1.07
137	0.0500	-1.22
262	0.0500	-1.22
035	0.0490	-1.44
381	0.0485	-1.56

Lab	Average*	Index
--	Method 221.XX --	
292	0.0450	-2.27
--	Method 241.00 --	
137	0.6500	1.77
397	0.6386 R	1.62
296	0.6230	.94
220	0.6200	.83
177	0.6180	.80
028	0.6180	.77
351	0.6116	.58
029	0.5985	.16
Avg	0.5935	
136	0.5920	-.13
234	0.5900	-.33
390	0.5900	-.33
040	0.5825	-.37
095	0.5820	-.41
072	0.5801	-.43
043	0.5800	-.53
369	0.5350	-1.84
193	0.5250	-2.20
114	0.4010 s	-6.03
--	Method 241.30 --	
330	0.6900	1.88
131	0.6620	1.38
231	0.6600	1.34
407	0.6550	1.28
360	0.6055 R	.70
324	0.6200	.68
023	0.6040	.39
096	0.6000	.32
102	0.5921	.22
057	0.5859	.12
Avg	0.5809	
389	0.5750	-.13
292	0.5705	-.18

Lab	Average*	Index
--	Method 241.30 --	
394	0.5695	-.19
381	0.5800 X	-.34
009	0.5321	-.85
247	0.5300	-.93
393	0.5110	-1.19
157	0.5024	-1.33
300	0.5000	-1.37
035	0.4980	-1.41
041	0.4357 R	-2.52
--	Method 241.99 --	
320	0.4854	.71
--	Method 241.XX --	
262	1.0700 s	8.44
330	0.6900	1.94
131	0.6620	1.43
231	0.6600	1.39
407	0.6550	1.33
137	0.6500	1.22
397	0.6386 R	1.11
296	0.6230	.76
360	0.6055 R	.73
324	0.6200	.73
220	0.6200	.71
177	0.6180	.68
028	0.6180	.67
351	0.6116	.56
023	0.6040	.43
096	0.6000	.36
381	0.5800 X	.34
029	0.5985	.34
234	0.5900	.26
390	0.5900	.26
102	0.5921	.25
136	0.5920	.23
043	0.5800	.17
057	0.5859	.15

Lab	Average*	Index
--	Method 241.XX --	
095	0.5820	.12
040	0.5825	.10
072	0.5801	.04
Avg	0.5789	
389	0.5750	-.11
292	0.5705	-.15
394	0.5695	-.16
369	0.5350	-.76
009	0.5321	-.82
247	0.5300	-.91
193	0.5250	-.96
393	0.5110	-1.17
157	0.5024	-1.31
300	0.5000	-1.35
035	0.4980	-1.39
320	0.4854	-1.61
041	0.4357 R	-2.51
114	0.4010	-3.05
--	Method 251.00 --	
397	12.963	.71
--	Method 251.30 --	
232	16.550	1.72
324	15.300	1.23
389	13.200	.38
157	12.675	.17
Avg	12.254	
247	11.500	-.36
096	11.500	-.36
102	11.593	-.40
009	9.1850	-1.22
035	8.7800	-1.40
--	Method 251.99 --	
407	15.500	.71

Lab	Average*	Index
--	Method 251.XX --	
232	16.550	1.61
407	15.500	1.18
324	15.300	1.11
389	13.200	.25
397	12.963	.14
157	12.675	.03
Avg	12.613	
247	11.500	-.50
096	11.500	-.50
102	11.593	-.51
009	9.1850	-1.40
035	8.7800	-1.58
--	Method 261.00 --	
072	0.0767 S	2.67
193	0.0735 R	2.20
043	0.0700	1.53
262	0.0700	1.22
369	0.0650	.89
397	0.0673	.86
028	0.0645	.38
Avg	0.0621	
351	0.0621	-.25
234	0.0600	-.32
137	0.0600	-.32
136	0.0575	-.71
390	0.0565	-.86
220	0.0500	-1.86
392	0.0245 s	-5.79
--	Method 261.11 --	
296	0.0625	1.25
Avg	0.0599	
029	0.0590	-.54
095	0.0585	-.75
040	0.0595	-1.04

* 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. - 200111 Grade 5-10-15

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index
--	Method 261.30 --	
041	0.0668 s	3.07
330	0.0650	1.89
247	0.0605	1.13
096	0.0600	1.06
023	0.0580	.73
324	0.0575	.63
360	0.0556 R	.59
131	0.0567	.49
009	0.0566	.48
057	0.0555	.38
Avg	0.0538	
102	0.0535	-.09
381	0.0535	-.10
300	0.0515	-.39
389	0.0509	-.51
157	0.0504	-.57
231	0.0500	-.63
035	0.0490	-.80
393	0.0435	-1.77
292	0.0420	-2.01
--	Method 261.99 --	
407	0.0575	.79
394	0.0552	.41
Avg	0.0526	
320	0.0450	-1.31
--	Method 261.XX --	
072	0.0767 s	3.36
193	0.0735 R	2.87
041	0.0668 R	2.49
043	0.0700 R	2.23
262	0.0700	2.04
397	0.0673	1.65
369	0.0650	1.49
330	0.0650	1.28
028	0.0645	1.21
296	0.0625	.93

Lab	Average*	Index
--	Method 261.XX --	
351	0.0621	.87
247	0.0605	.60
040	0.0595	.59
096	0.0600	.54
234	0.0600	.52
137	0.0600	.52
029	0.0590	.40
095	0.0585	.34
023	0.0580	.27
136	0.0575	.16
324	0.0575	.16
407	0.0575	.16
009	0.0566	.04
131	0.0567	.04
Avg	0.0566	
390	0.0565	-.08
394	0.0552	-.22
057	0.0555	-.28
102	0.0535	-.47
381	0.0535	-.47
360	0.0556	-.49
300	0.0515	-.77
389	0.0509	-.87
157	0.0504	-.93
231	0.0500	-.99
220	0.0500	-.99
035	0.0490	-1.15
320	0.0450	-1.83
393	0.0435	-2.02
292	0.0420	-2.24
392	0.0245 s	-4.86
--	Method 281.99 --	
407	0.0200	.00
--	Method 289.30 --	
009	21.985 s	26.15
057	6.2500	1.48

Lab	Average*	Index
--	Method 289.30 --	
232	5.8500	.84
102	5.4918	.28
Avg	5.3331	
157	5.2400	-.15
247	5.3000	-.16
096	5.0000	-.52
324	4.2000	-1.79
--	Method 289.99 --	
407	6.5000	.71
--	Method 289.XX --	
009	21.985 s	22.46
407	6.5000	1.53
057	6.2500	1.09
232	5.8500	.54
102	5.4918	.11
Avg	5.4790	
247	5.3000	-.28
157	5.2400	-.32
096	5.0000	-.65
324	4.2000	-1.75
--	Method 291.30 --	
096	26.600	1.14
102	24.483	.64
009	23.900	.52
232	22.300	.17
157	22.470	.17
Avg	21.758	
247	19.500	-.53
324	13.050	-2.05
--	Method 291.99 --	
407	26.000	.85
Avg	20.000	
035	14.000	-.88

Lab	Average*	Index
--	Method 291.XX --	
096	26.600	1.02
407	26.000	.91
102	24.483	.52
009	23.900	.40
232	22.300	.12
157	22.470	.04
Avg	22.288	
247	19.500	-.66
035	14.000 R	-2.00
324	13.050	-2.18
--	Method 311.00 --	
193	0.2105	.71
--	Method 311.99 --	
009	0.2441	1.11
247	0.2350	.66
Avg	0.2243	
035	0.2080	-.92
320	0.2103	-1.00
--	Method 311.XX --	
009	0.2441	1.34
247	0.2350	.85
Avg	0.2216	
193	0.2105	-.67
035	0.2080	-.81
320	0.2103	-.94
--	Method 321.00 --	
392	0.1050 s	4.30
028	0.0915	1.62
137	0.0900	1.30
193	0.0885	1.05
114	0.0870	.82
136	0.0855	.44
351	0.0833	.23
095	0.0841	.18

Lab	Average*	Index
Avg	0.0832	
397	0.0826	-.16
043	0.0830	-.20
029	0.0815	-.44
072	0.0817	-.46
234	0.0800	-.62
220	0.0800	-.62
369	0.0800	-.62
296	0.0825 R	-.69
262	0.0700	-2.55
390	0.0690 s	-2.85
--	Method 321.30 --	
330	0.1045 s	3.16
381	0.0950 X	1.75
009	0.0934	1.56
131	0.0925	1.41
407	0.0850 R	.78
040	0.0865	.67
394	0.0845 X	.58
023	0.0850	.46
393	0.0855	.44
292	0.0840	.27
Avg	0.0824	
389	0.0818	-.14
247	0.0815	-.14
231	0.0800	-.33
360	0.0818	-.34
324	0.0814	-.35
102	0.0785	-.55
057	0.0782	-.58
300	0.0735	-1.23
035	0.0705	-1.66
157	0.0688	-1.87
--	Method 321.99 --	
407	0.0804	.67
096	0.0800	.62

* 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. - 200111 Grade 5-10-15

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
--	Method 321.99 --		--	Method 321.XX --										
Avg	0.0750		102	0.0785	-.56									
320	0.0646	-1.29	057	0.0782	-.58									
			300	0.0735	-1.28									
--	Method 321.XX --		035	0.0705	-1.74									
392	0.1050 s	3.48	262	0.0700	-1.80									
330	0.1045 s	3.43	157	0.0688	-1.97									
381	0.0950 X	1.91	390	0.0690 R	-2.04									
009	0.0934	1.70	320	0.0646	-2.61									
131	0.0925	1.54												
028	0.0915	1.41	--	Method 325.30 --										
137	0.0900	1.17	041	0.0787	.71									
193	0.0885	.97												
407	0.0850 R	.86												
114	0.0870	.78												
040	0.0865	.75												
394	0.0845 X	.64												
296	0.0825	.52												
023	0.0850	.52												
136	0.0855	.51												
393	0.0855	.51												
292	0.0840	.32												
095	0.0841	.30												
351	0.0833	.24												
043	0.0830	.20												
397	0.0826	.09												
Avg	0.0821													
247	0.0815	-.12												
389	0.0818	-.13												
029	0.0815	-.24												
407	0.0804	-.27												
072	0.0817	-.28												
369	0.0800	-.32												
220	0.0800	-.32												
231	0.0800	-.32												
234	0.0800	-.32												
096	0.0800	-.32												
360	0.0818	-.36												
324	0.0814	-.36												

* 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. - 200111 Grade 5-10-15

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	-0.0408	0.92	0.10	060.XX	5	0.0000	1.05	0.15
001.XX	5	-0.0733	0.95	0.10	101.30	6	-2.6560	6.57	0.20
009.10	6	-0.1232	1.00	0.03	101.XX	9	-1.4329	4.40	0.23
009.XX	6	-0.1232	1.00	0.03	121.00	20	-0.1977	1.29	0.31
010.11	10	0.0000	0.79	0.62	121.30	19	0.7293	4.38	0.54
010.12	8	-1.0577	3.11	1.16	121.70	2	28.5542	40.38	6.82
010.60	47	1.2198	10.67	2.27	121.99	2	0.0000	0.00	0.00
010.99	6	-1.1390	3.27	0.36	121.XX	43	-0.0057	4.37	0.49
010.XX	67	0.8200	9.84	2.19	131.00	2	0.0000	1.22	0.05
020.10	8	0.0000	0.89	0.50	131.XX	2	0.0000	1.22	0.05
020.20	15	-0.0304	0.97	0.42	144.01	11	-1.7232	3.80	0.16
020.40	7	0.0855	0.95	0.68	144.99	23	-1.2776	3.59	0.81
020.50	5	-1.5295	2.29	0.09	144.XX	36	-1.3821	3.69	0.72
020.99	2	-127.464	180.26	0.55	151.30	3	0.0000	1.02	0.37
020.XX	38	-1.2493	5.73	0.44	151.XX	4	0.0000	0.97	0.40
030.20	2	0.0000	1.11	0.37	165.00	10	0.2887	1.33	0.43
030.40	3	8.7773	15.22	1.17	165.99	10	0.2294	1.20	0.42
030.XX	7	1.8832	5.05	0.60	165.XX	21	0.8062	1.99	0.66
040.20	2	0.0000	1.15	0.29	181.00	3	2.7083	4.77	0.94
040.40	4	0.0000	0.92	0.49	181.30	7	-0.0067	0.94	0.32
040.XX	8	0.0728	0.96	0.51	181.XX	11	0.3301	1.45	0.38
041.10	16	0.0000	0.91	0.43	190.00	16	0.0802	1.03	0.15
041.20	3	0.0000	1.12	0.06	190.99	8	1.2467	3.77	0.20
041.40	6	-0.5978	1.74	0.99	190.XX	24	0.4603	1.78	0.16
041.50	8	0.0000	0.99	0.29	191.30	4	0.0000	0.99	0.38
041.60	8	0.0000	1.02	0.18	191.XX	5	0.0000	0.98	0.36
041.XX	38	-0.0468	1.05	0.34	202.30	6	0.0000	1.05	0.08
048.20	2	0.0000	1.04	0.46	202.99	2	0.0000	1.22	0.02
048.99	2	0.0000	1.17	0.25	202.XX	9	0.2447	1.21	0.06
048.XX	5	0.0000	1.03	0.23	221.00	19	2.8199	12.50	12.50
050.00	25	-0.1208	1.24	0.23	221.30	20	0.2176	1.18	0.56
050.30	8	0.3822	1.44	0.20	221.99	2	0.0000	0.80	0.65
050.50	4	0.0000	1.06	0.18	221.XX	39	1.5041	8.73	8.69
050.51	7	0.0000	1.00	0.25	241.00	19	0.5425	3.87	0.35
050.60	5	0.6053	1.64	0.11	241.30	21	-0.0975	1.10	0.23
050.61	8	-0.4275	2.43	1.14	241.XX	41	0.1817	1.68	0.21
050.99	17	-0.3013	1.88	0.31	251.30	9	0.0000	1.01	0.18
050.XX	70	-0.0036	1.31	0.36	251.XX	11	0.0000	1.01	0.17
060.00	4	0.0000	1.06	0.18	261.00	14	-0.1274	1.97	0.62

MAGRUDER - Fertilizer Check Sample No. - 200111 Grade 5-10-15

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
261.11	4	0.0000	0.75	0.68					
261.30	19	0.1305	1.07	0.53					
261.99	3	0.0000	1.05	0.31					
261.XX	40	0.1085	1.42	0.50					
289.30	8	3.2416	9.22	1.21					
289.XX	9	2.4740	7.48	1.01					
291.30	7	0.0000	1.04	0.08					
291.99	2	0.0000	1.19	0.20					
291.XX	9	-0.2172	1.16	0.18					
311.99	4	0.0000	1.01	0.34					
311.XX	5	0.0000	1.00	0.33					
321.00	18	0.0724	1.51	0.38					
321.30	20	0.1716	1.16	0.31					
321.99	3	0.0000	1.11	0.07					
321.XX	40	0.1280	1.25	0.30					