



THE GRAIN AND FEED TRADE ASSOCIATION

(GAFTA)

Analysts Scheme - Ring Test

(2018:2)

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Date	07/11/2018	

Summary

1. Test Materials for the 2nd round of the 2018 GAFTA Analysts Scheme were dispatched in August 2018. Three test materials were distributed.

	Feed	Grain	Mycotoxin
Sample ID :	2018:F2	2018:G2	2018:M2
Sample type :	Organic Maize Flour	Rolled Oats	Wheat
Sample state :	Milled	Unmilled	Milled
Number distributed :	255	311	69
Data returned :	246	300	60
% returned	96.5	96.5	87

2. A total of 319 participants in 56 countries were sent one or more of the test materials depending on the requirements of their analytical laboratory. Results were returned from 309 participants. The countries involved were as follows :

Argentina	14	Malaysia	1
Australia	6	Mexico	1
Austria	1	Moldova	1
Belgium	1	Nigeria	1
Brazil	19	Norway	1
Bulgaria	5	Pakistan	1
Canada	4	Paraguay	1
China	2	Peru	3
Croatia	2	Poland	6
Denmark	2	Romania	13
Egypt	2	Russia	52
Estonia	2	Serbia	3
Finland	1	Singapore	1
France	8	Slovakia	1
Germany	8	South Africa	1
Greece	1	Spain	8
Hungary	11	Sweden	1
Iceland	1	Tanzania	2
India	22	Thailand	5
Indonesia	1	The Netherlands	7
Iran	1	Turkey	9
Israel	1	Uganda	1
Italy	9	Ukraine	29
Kazakhstan	3	United Arab Emirates	3
Kenya	2	United Kingdom	5
Latvia	6	United States of America	12
Lebanon	1	Uruguay	4
Lithuania	5	Vietnam	5

3. A total of 11 weeks were allocated between sample dispatch and the closing of the data entry portal for result submission.
4. The analyses requested were as follows

Feed	Grain	Mycotoxin
Moisture / %	Moisture / %	DON / ug/kg as is
Protein (N x 6.25) / % as is	Protein (N x 6.25) / % as is	
Oil / % as is		
Crude Fibre / % as is		
Ash / % as is		
Sand/Silica / % as is		

5. As we are now using the new web portal data entry system we are no longer able to accept data on other moisture bases or using other Nitrogen factors. All data entered into the portal is assumed to be on the moisture basis and using the Nitrogen factor requested by the portal.
6. As we are now using the new web portal data entry system we are no longer able to accept results reported as "less than" a value. To enable the data to be processed a value of half of the "less than" figure should be submitted.
7. The assigned value for each analyte was calculated as the robust mean of the trial data. For this round this involved treating any results which lay outside of ± 4 standard deviations (all results) as outliers and recalculating the robust mean value with the outliers removed.
8. The target standard deviation for each analyte was chosen from either the appropriate form of the Horwitz equation or the trial standard deviation after removal of outliers. The choice was made using current industry practices used in other collaborative trials and proficiency testing schemes. z-Scores were deemed satisfactory if $|z| \leq 2$.
9. For Mycotoxin analysis, z scores are for participant information only, to assess their performance against their peers. Participation in the mycotoxin testing does not affect grain or feed approval under the Gafta Approved Analysts Scheme.
10. Surplus test materials from this and previous rounds are available for sale. Please email GaftaRingTest@sciantec.uk.com for details.

Homogeneity Assessment

1. Samples were assessed for homogeneity after blending and packing by selecting ten parcels of each material at random from all those produced. Each of these parcels were tested in duplicate under repeatability conditions.
2. Statistical analysis of the resulting data was carried out using the industry standard Cochran's 'C' test and analytical variance test for 'sufficient homogeneity'.
3. All 3 materials were found to be sufficiently homogeneous for every analyte.
4. Worked example using F2 Moisture.

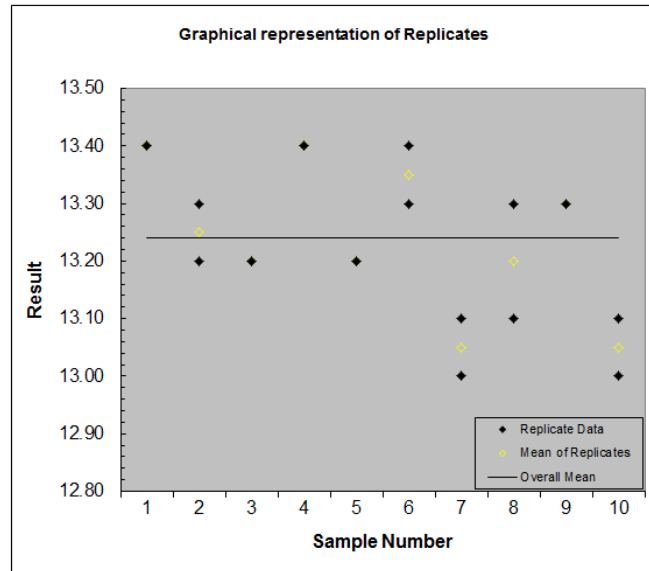
Test For Sufficient Homogeneity in a reference material

10 units randomly selected and tested in duplicate under repeatability conditions.

Cochrans test

Sample Info.	GAFTA 2018.F2- Moisture				
Sample No.	Result a	Result b	Av	SD ²	SD ² (9 pairs)
1	13.40	13.40	13.40	0.0000	0.0000
2	13.30	13.20	13.25	0.0050	0.0050
3	13.20	13.20	13.20	0.0000	0.0000
4	13.40	13.40	13.40	0.0000	0.0000
5	13.20	13.20	13.20	0.0000	0.0000
6	13.30	13.40	13.35	0.0050	0.0050
7	13.10	13.00	13.05	0.0050	0.0050
8	13.30	13.10	13.20	0.0200	
9	13.30	13.30	13.30	0.0000	0.0000
10	13.10	13.00	13.05	0.0050	0.0050

Min	13	Worst pair	0.0200	0.0050
Max	13.4	Sum of SD ²	0.040	0.020
Mean	13.240	C	0.500	0.250
		Critical Val.	0.602	0.639
		PASS	PASS	PASS



Status of this Test Material

Passed Cochran's Test

Estimate of Analytical Variance and Between Sample variance

Sample No.	Result a	Result b	Difference ²	Sum
1	13.40	13.40	0.000	26.80
2	13.30	13.20	0.010	26.50
3	13.20	13.20	0.000	26.40
4	13.40	13.40	0.000	26.80
5	13.20	13.20	0.000	26.40
6	13.30	13.40	0.010	26.70
7	13.10	13.00	0.010	26.10
8	13.30	13.10	0.040	26.40
9	13.30	13.30	0.000	26.60
10	13.10	13.00	0.010	26.10

n	20		
Sum		0.08	
Variance			0.064
Mean	13.24		
SD	0.1314		
RSDR	0.9924		
Analytical Variance S ² _{an}		0.004	
S _{anal}		0.06	
Between sample variance S ² _{sam}			0.014

Test for acceptable between sample variance

Source of σ_p value to use.

Put 1 in cell below to choose which to use.

Use	Source	σ_p	
	RSDR Data from this trial	0.99	0.131
	Prescribed value of σ_p		Need Value
	Collab Trial Data RSDR		Need Value
	Horwitz c<120 ppb		2.913
1	Horwitz c>120ppb and <13.8%		0.359
	Horwitz c>13.8 %		0.364
	Mass Ratio to be used in Horowitz	2	
	PPB=9, PPM=6, Percent=2 etc.		

Target Standard Deviation chosen	0.359
σ_{all}^2	0.012
Replicates	10
F1	1.88
F2	1.01
Critical Value	0.03

Overall Status of this Test Material **Accept**

5. Data for other samples / analytes

	Feed:					Grain		Toxin	
	Moisture	Protein	Oil	Fibre	Ash	Sand	Moisture	Protein (DMB)	DON
Critical Value =0.602 (10 Pairs)	0.500	0.286		0.500	0.333		0.429	0.314	0.229
OR Critical Value =0.639 (9 Pairs)			0.333						
Mean Result	13.240	5.550	1.698	0.400	0.595		12.066	2.290	1.411
S^2_{anal}	0.004	0.007	0.001	0.016	0.002		0.002	0.001	0.001
S_{anal}	0.06	0.08	0.02	0.13	0.04		0.05	0.04	0.03
S^2_{sam}	0.014	0.003	0.001	0.005	0.001		0.023	0.000	0.001
σ_p	0.359	0.172	0.063	0.018	0.026		0.332	0.081	0.606
σ_p source	Horwitz	Horwitz	Horwitz	Horwitz	Horwitz		Horwitz	Horwitz	Horwitz
σ^2_{all}	0.012	0.003	0.0004	0.00003	0.0001		0.010	0.001	0.033
Critical Value	0.03	0.01	0.001	0.02	0.002		0.02	0.002	0.06

No data for Sand as results too low for meaningful analysis.

Table 2 - Raw Data.

Laboratory Number	Feed Moisture %	Feed Protein % AR (N x 6.25)	Feed Oil % AR	Feed Fibre % AR	Feed Ash % AR	Feed Sand % AR	Grain Moisture %	Grain Protein % AR (N x 6.25)	Mycotoxin DON ug/kg
GAFTA 002							11.15	11.17	
GAFTA 004	13.20	5.20	1.70	0.40	0.62	0.01	11.70	11.30	
GAFTA 006	13.04	5.32	1.57	0.54	0.66	0.01	11.98	11.49	
GAFTA 007	13.08	5.50	1.74	0.73	0.64	0.05	11.61	11.33	1169
GAFTA 009	12.96	5.48	1.52	0.88	0.60	0.00	11.99	11.25	
GAFTA 013	13.18	5.40	1.72	0.50	0.60	0.04	11.98	11.31	1510
GAFTA 014	13.29	6.07	1.69	0.32	0.65	0.01	12.17	12.24	1091
GAFTA 015	13.04	5.50	1.62	0.53	0.60	0.02	11.94	11.36	
GAFTA 016	12.90	5.47	1.88	0.49	0.66	0.10	11.27	11.37	
GAFTA 018	12.93	5.51		0.62	0.72		12.05	11.27	
GAFTA 019	14.22	5.43	1.63	0.53	0.67	0.01	12.19	11.63	1366
GAFTA 024	13.71	5.41	0.61			0.03	11.58	11.44	
GAFTA 025	13.69	5.60	1.66				11.70	11.38	
GAFTA 026	13.46	6.77	1.20		0.37				
GAFTA 029	13.06	5.38	1.71	0.48	0.68	0.00	12.02	12.42	
GAFTA 032	13.60	5.46	1.74		0.66	0.00	11.70	11.40	1441
GAFTA 033	13.00	6.00	2.00	1.00	1.00	0.00	12.00	11.00	
GAFTA 035	12.97	5.49	1.62	0.50	0.60	0.02	12.01	11.29	
GAFTA 039	12.82	5.60	1.72	0.69	0.62	0.01	11.90	11.41	
GAFTA 040	12.78	5.46	2.06	0.89	0.71	0.03	11.68	11.54	
GAFTA 044	12.57	5.51	1.63				11.70	11.39	
GAFTA 046	12.89	5.76	1.64	0.68	0.66	0.01	11.78	11.74	
GAFTA 047	12.90	5.81	1.53	0.37	0.65	0.00			
GAFTA 050	13.80	5.76	1.70	1.00	0.61	0.01	11.68	11.57	
GAFTA 051							11.60		
GAFTA 058	13.06	5.43	1.69	0.58	0.59	0.00	11.64	11.30	1679
GAFTA 060	12.99	5.47	1.72	1.51	0.64	0.01	11.61	11.95	1420
GAFTA 062	13.00	5.51	1.70	0.70	0.60	0.01	11.62	11.50	
GAFTA 063	13.82	5.61	1.71	0.51	0.64	0.01	11.81	11.82	521
GAFTA 064	12.96	5.47	1.73	1.03	0.67	0.06	11.50	11.19	1460
GAFTA 065	12.90	5.50	1.68	0.54	0.60	0.00			
GAFTA 066							12.05	11.27	
GAFTA 067							12.00	10.80	
GAFTA 069	13.27	5.69					11.85	11.47	
GAFTA 071	13.29	5.44	1.68	0.53	0.61	0.01	11.63	11.40	2
GAFTA 072	13.61	5.32	1.74	0.44	0.63	0.02	11.85	11.65	
GAFTA 073	12.68	5.56	1.70				11.78	11.50	
GAFTA 074	13.81	5.43	1.74	0.61	0.60	0.00	11.86	11.43	1479
GAFTA 075	13.00	5.60	1.70	0.70	0.60	0.00	11.90	11.30	1431
GAFTA 078							11.70	11.48	1330
GAFTA 079	13.77	5.65	1.69	0.60	0.61	0.02	11.82	11.46	1226
GAFTA 080	13.10	5.60	1.70	0.50	0.60	0.01	11.96	11.70	
GAFTA 081	13.76	5.62	1.70	0.50	0.64	0.01	11.85	11.79	
GAFTA 083	13.40	6.04	1.70	0.70			11.64	11.40	
GAFTA 084	13.17	5.47	1.67	0.55	0.70		12.64	12.35	
GAFTA 085	13.10	5.55	1.92	0.74	0.70	0.00	11.80	11.50	1624
GAFTA 086	13.19	5.64	1.63	0.34	0.56	0.03	12.05	11.42	
GAFTA 094	13.82	5.57	1.71				11.83	11.50	2237
GAFTA 095	13.34	5.52	1.64	0.75	0.58	0.02	11.78	11.44	1700
GAFTA 096							11.53	10.83	
GAFTA 097	13.11	5.24	1.57	0.62	0.60	0.05	11.64	10.85	
GAFTA 099							11.78	12.02	
GAFTA 100	12.78	5.67	1.74	0.69	0.67	0.01	11.77	11.22	
GAFTA 101							11.58	11.35	
GAFTA 103							11.80	11.25	
GAFTA 104	14.10	5.49	1.63	0.80	0.60	0.03	11.90	11.40	1370
GAFTA 105	13.18	5.56			0.59		11.91	11.71	
GAFTA 107	12.96	5.50	1.70	0.59	0.63	0.03	11.96	11.49	
GAFTA 108	13.73	5.60	1.68		0.67		11.78	11.33	
GAFTA 109							11.66		
GAFTA 112	13.34	5.56	1.64	0.68			11.81	11.41	
GAFTA 113	13.46	5.48	1.68				11.60	11.48	
GAFTA 115	13.80	5.41	1.67	0.49	0.62	0.02	11.80	11.40	777
GAFTA 116	13.06	5.77	1.68	0.45	0.62	0.01	11.61	11.66	726
GAFTA 117	13.08	5.63	1.74	0.55	0.63	0.00	11.83	11.49	
GAFTA 118							11.67	11.25	
GAFTA 121	13.17	5.68	1.56	0.42	0.61	0.01	11.72	11.68	
GAFTA 122	12.90	5.46	1.65	0.52	0.64	0.02	11.89	11.44	
GAFTA 123	13.30	5.65	1.79	0.39	0.63	0.01	11.80	11.86	
GAFTA 124	13.07	5.29	1.72	0.46	0.64	0.02	11.49	11.15	
GAFTA 125	13.50	5.46			0.61		11.62	11.43	2200
GAFTA 126	13.79	5.57	1.68				11.72	11.66	
GAFTA 127	13.11	5.57	2.06	0.53	0.60	0.07	11.35	12.60	1480
GAFTA 128	13.75	5.58	1.62	0.80	0.60	0.00	11.92	11.45	
GAFTA 131	12.82	5.62	1.77	0.58	0.64	0.01	11.90	11.41	
GAFTA 132							12.07	11.15	830
GAFTA 133	13.20	5.44	1.62	0.63	0.62		11.65	11.29	1522
GAFTA 134	12.87	5.48	1.65	1.36	0.62	0.03	11.61	11.29	1452
GAFTA 135							11.77	11.70	
GAFTA 136	13.05	5.48			0.59				

Laboratory Number	Feed Moisture %	Feed Protein % AR (N x 6.25)	Feed Oil % AR	Feed Fibre % AR	Feed Ash % AR	Feed Sand % AR	Grain Moisture %	Grain Protein % AR (N x 6.25)	Mycotoxin DON ug/kg
GAFTA 138	13.25	5.50	1.70	0.40	0.60	0.05	11.59	11.66	1400
GAFTA 142	13.12	5.55	1.85	0.50	0.63	0.00	11.68	11.53	2160
GAFTA 144							11.50	11.31	
GAFTA 145	12.50	5.72	1.85	0.42	0.64	0.00	10.60	12.80	
GAFTA 146	13.50	5.45	1.70	0.64	0.67	0.02	11.79	11.35	1450
GAFTA 148	13.02	6.02	1.58	0.41	0.62		11.74	11.35	
GAFTA 150	12.71	5.45	1.70	0.22	0.50	0.01	11.60	11.35	1775
GAFTA 152	13.74	5.57	1.64				11.76	11.46	
GAFTA 156	13.21	5.68	1.69	0.30	1.00		11.69	12.09	
GAFTA 157	13.02	5.75	1.62	0.67	0.64	0.01	11.80	11.62	
GAFTA 158							11.83	11.13	
GAFTA 162							11.80	11.48	
GAFTA 163	13.30	5.41	1.61	0.48	0.60		11.60	11.36	
GAFTA 164	13.50	5.50	1.70	0.70	0.60	0.00	11.30	11.50	
GAFTA 165	12.97	5.57	1.72	0.60	0.59	0.00	11.30	12.35	
GAFTA 168							11.70	11.40	
GAFTA 169	13.49	5.46	1.68	0.54	0.61	0.03	11.61	11.41	
GAFTA 172	13.30	5.61	1.55	0.57	0.62	0.03	11.64	11.50	
GAFTA 173	13.42	5.50	1.63	0.63	0.66	0.02	11.77	11.40	
GAFTA 174							11.78	11.37	
GAFTA 175	13.30	5.40	1.68	0.60	0.60	0.02	11.60	11.46	
GAFTA 177	13.40	5.50	1.76	0.70	0.62	0.01	12.10	11.32	1300
GAFTA 178	13.60	5.44			0.63		11.60	11.57	
GAFTA 179	13.66	5.56	1.64				11.64	11.20	
GAFTA 180	13.35	5.50	1.85				11.85	11.47	
GAFTA 181	13.71	5.33	1.74		0.62		11.81	11.13	
GAFTA 183	13.28	5.46		0.55			11.70	11.59	
GAFTA 184	13.28	5.51	1.63	0.56	0.66		11.79	11.38	
GAFTA 185	13.25	5.54	1.71		0.62		11.97	11.43	1209
GAFTA 186	13.32	5.62			0.63		11.80	11.47	
GAFTA 187	13.15	5.54	1.74				11.71	11.39	
GAFTA 188	13.66	5.36	1.85	1.75	0.65	0.03	11.35	11.17	1091
GAFTA 190	13.89	5.77	1.62	1.01	0.59		11.90	11.18	
GAFTA 191	13.33	5.61	1.80				11.65	11.48	
GAFTA 192	13.27	5.48			0.63		11.70	11.34	
GAFTA 196	13.74	5.43	1.71	0.40	0.58	0.02	11.93	11.46	
GAFTA 199	12.90	5.44	1.50	0.66	0.60				
GAFTA 202	13.20	5.53	1.76				11.53	11.49	
GAFTA 203	13.18	5.54			0.64		11.70	11.45	
GAFTA 208	13.28	5.44	1.72	0.52	0.62	0.00	11.66	11.25	
GAFTA 209	12.52	5.74	1.74	0.53	0.60	0.00	11.58	11.44	
GAFTA 210							11.80	11.06	
GAFTA 211	13.95	5.53			0.57		11.80	11.60	
GAFTA 215	13.44	5.42			0.60		11.57	11.50	
GAFTA 217	13.02	5.46	1.88	0.39	0.63	0.02	11.95	12.62	
GAFTA 218	13.10	5.74	1.65	0.41	0.60		11.59	11.34	
GAFTA 219	13.60	5.50	1.84	0.48	0.64	0.01	11.29	11.29	
GAFTA 220							11.74	11.47	
GAFTA 221	13.50	5.60	1.76	0.46	0.62		11.80	11.20	
GAFTA 226							11.69	11.39	
GAFTA 229	13.82	5.36			0.68		11.96		
GAFTA 230	12.90	5.52	1.84		0.66				
GAFTA 231	12.99	5.44	1.70	0.00	0.67	0.01	11.85	11.24	940
GAFTA 232							11.80	11.57	
GAFTA 234	14.01	5.60	1.74	0.40	0.63		12.09	11.41	1500
GAFTA 235							11.64	11.23	
GAFTA 236	13.31	5.46	1.71	0.54	0.63		11.62	11.37	
GAFTA 238	12.75	5.17	1.70		0.40		10.90	12.50	
GAFTA 243	14.00	5.50	1.60	0.56	0.57		11.60	11.30	1450
GAFTA 246	13.96	5.52	1.69	0.43	0.65	0.01	11.69	11.51	
GAFTA 249							11.52	11.34	
GAFTA 255							11.92	11.24	1789
GAFTA 258	13.10	5.31	1.80	0.40	0.64	0.01	11.30	11.40	
GAFTA 261	13.90	5.80	1.90	0.25	0.60		11.90	11.60	
GAFTA 262	13.01	5.51	1.65	0.57	0.64	0.03	12.16	11.25	
GAFTA 263	13.13	5.02	1.70				12.84	15.17	
GAFTA 264							11.60	11.40	
GAFTA 266	13.00	6.00	2.00	1.00	1.00	0.00	12.00	11.00	
GAFTA 268							11.72	11.23	
GAFTA 269							11.72	11.15	
GAFTA 272	12.87	6.26	1.70		0.76		11.41	11.91	
GAFTA 274	14.10	5.50	1.70	0.50	0.60	0.10	12.10	10.60	1600
GAFTA 275	13.69	5.56	1.72	0.52	0.64	0.01	12.16	11.38	
GAFTA 276	13.09	5.57	1.56	0.54	0.62	0.01	11.78	11.48	
GAFTA 277	13.72	5.50	1.66	0.53	0.65	0.03	11.60	11.40	2
GAFTA 278	13.27	5.45			0.59		11.76	11.23	
GAFTA 279	13.29	5.56	1.70	0.51	0.61	0.00	11.68	11.39	2070
GAFTA 280	13.05	5.60	1.70	0.45	0.60	0.02	12.18	11.40	
GAFTA 281	13.10	5.65	1.66	0.28			11.63	12.00	
GAFTA 282							11.73	11.37	
GAFTA 283							11.70	11.32	

Laboratory Number	Feed Moisture %	Feed Protein % AR (N x 6.25)	Feed Oil % AR	Feed Fibre % AR	Feed Ash % AR	Feed Sand % AR	Grain Moisture %	Grain Protein % AR (N x 6.25)	Mycotoxin DON ug/kg
GAFTA 284	12.80	5.71	1.69	0.59	0.58	0.05	11.90	12.19	
GAFTA 285	12.98	5.54	1.74	0.59	0.60	0.01	11.79	11.49	
GAFTA 286	14.07	5.56	1.64	0.71	0.67		11.39	11.60	
GAFTA 288							11.70	11.50	
GAFTA 289							11.89	12.54	
GAFTA 290	13.50	5.40	1.70	0.54	0.58	0.01	11.60	12.13	
GAFTA 291	13.96	5.53	1.58	1.02	0.66		11.42	11.54	
GAFTA 292	13.70	5.40	1.52	2.31	0.65	0.09	11.75	11.21	
GAFTA 294	14.06	5.43			0.62		11.55	11.54	
GAFTA 295	13.32	5.52	1.72	0.50	0.61	0.01	11.68	11.38	
GAFTA 296	13.24	5.27	1.61	0.52	0.60		10.70	10.86	
GAFTA 297	13.38	5.50	1.69				11.70	11.52	
GAFTA 300							11.82	11.49	
GAFTA 301	13.81		1.84	0.33	0.67	0.02	11.58		1500
GAFTA 302	13.81	5.68	1.73	0.63	0.58	0.02	11.79	11.50	
GAFTA 303	13.15	5.61	1.70	0.57	0.60	0.04	11.70	12.31	
GAFTA 304	13.16	5.54	1.65	0.69	0.60	0.01	11.80	11.52	
GAFTA 305	13.45	5.44			0.61		11.60	11.41	1600
GAFTA 306							11.80	11.46	
GAFTA 307									
GAFTA 309							11.63	11.43	
GAFTA 310	13.44	5.30				0.01	11.60	11.41	
GAFTA 311	13.07	5.30	1.75	0.33	0.64	0.03	11.90	12.41	
GAFTA 312							10.10	12.30	
GAFTA 313	13.31	5.46	1.66		0.61		11.58	11.47	
GAFTA 314	13.10	5.56	1.68				11.79	11.44	1850
GAFTA 315	13.25	5.57	1.84	0.62	0.69	0.06	11.92	11.41	
GAFTA 316	0.02	2.20	0.04	0.02	0.20		0.02	7.20	
GAFTA 317							12.00	11.36	
GAFTA 318	13.40	5.58	1.65		0.60		11.60	12.45	
GAFTA 319	13.59	5.45		0.55			11.50	11.42	
GAFTA 320	13.02	5.17	1.68	0.52	0.73	0.19	11.41	10.54	
GAFTA 321	13.52	5.62	1.69		0.61	0.02	11.93	11.55	
GAFTA 322	14.14	4.74	1.90	0.52	0.64	0.00	12.08	11.53	
GAFTA 323	13.89	5.42			0.58		12.07	11.52	
GAFTA 324							12.00	11.50	
GAFTA 329							11.81	11.62	
GAFTA 333	13.55	5.55			0.64		11.78	11.45	
GAFTA 334	12.50	5.40	1.75	0.55	0.58	0.00	11.60	10.90	
GAFTA 335	13.17	5.65	1.62				11.65	11.42	
GAFTA 336							12.00	11.20	
GAFTA 337	13.12	5.58	1.63	0.69			11.78	11.39	
GAFTA 338									
GAFTA 339	13.86	5.40	1.50	0.25	0.63	0.10	10.95	12.65	
GAFTA 340	13.49	5.43			0.60		11.60	11.39	
GAFTA 341	13.23	5.50	1.95				11.65	11.37	
GAFTA 342	14.22	5.54	1.96		0.63		11.89	11.74	
GAFTA 343	13.02	5.43	1.61	0.50	0.64	0.02	11.30	12.15	
GAFTA 345	13.37	5.56	1.64	0.67	0.66	0.03	11.66	11.53	
GAFTA 347	14.09	5.64	1.83	0.46	0.62	0.02	11.80	11.37	1560
GAFTA 348	13.56	5.85	1.74				11.86	11.31	
GAFTA 349	12.71	5.54	1.93	0.20	0.65	0.10	11.73	12.51	
GAFTA 350									
GAFTA 351	13.05	5.51			0.60	0.01	11.63	11.22	1691
GAFTA 352	13.56	6.13	1.67				11.78	11.33	
GAFTA 353	12.80	7.52	1.56	0.50	0.62	0.01	11.90	13.07	
GAFTA 354	13.36	5.54			0.61		11.61	11.45	
GAFTA 355	13.19	5.51	1.67	0.59	0.62	0.06	11.93	12.21	1
GAFTA 356	13.50	5.40	1.80	0.75	0.67		11.70	11.59	
GAFTA 357	13.40	5.60	2.10	1.50	0.69	0.05	11.95	11.49	1500
GAFTA 359		5.50	1.80	0.40	0.60		11.86	12.20	
GAFTA 360									
GAFTA 361	12.76	5.54	1.72	0.66	0.63	0.01	11.70	11.41	
GAFTA 362	11.92	5.80	1.61	0.49	0.68	0.04	10.28	11.33	
GAFTA 363	12.91	5.63	1.74	0.67	0.64	0.01	11.91	11.34	
GAFTA 364							11.44	11.65	
GAFTA 365	13.12	5.66	1.55	0.97			11.82	11.33	
GAFTA 366	13.01	5.45	1.69	0.59	0.60	0.03	12.00	11.53	
GAFTA 367	13.77		1.70		0.66		11.92	11.90	
GAFTA 370	12.53	5.56	1.77	0.81	0.70	0.05	10.79	11.05	1705
GAFTA 371							11.69	11.34	
GAFTA 372							11.78	11.28	
GAFTA 375		5.28	1.70	0.69	0.59		11.30	11.24	1295
GAFTA 376	12.86	5.34	1.52	1.05	0.56	0.05	11.91	11.46	
GAFTA 377							11.10	11.34	
GAFTA 378	12.45				0.58	0.01			
GAFTA 379							11.60	12.53	1532
GAFTA 381							12.09	11.43	
GAFTA 382							11.62	11.32	
GAFTA 383	13.05	5.36	1.68	0.62	0.62	0.04	11.96	11.05	1100
GAFTA 384							11.78	11.91	

Laboratory Number	Feed Moisture %	Feed Protein % AR (N x 6.25)	Feed Oil % AR	Feed Fibre % AR	Feed Ash % AR	Feed Sand % AR	Grain Moisture %	Grain Protein % AR (N x 6.25)	Mycotoxin DON ug/kg
GAFTA 385		12.25	1.72	0.63			11.68	4.86	
GAFTA 386	13.48		1.85	0.45	0.70		11.25		
GAFTA 387							11.65	11.26	
GAFTA 388	12.70	6.00	1.70	0.50	0.65	0.02	10.85	11.54	751
GAFTA 389	13.12	5.79	1.74	0.39	0.66	0.01	11.91	11.56	
GAFTA 391	13.89	5.33	1.75	0.37	0.66	0.03	11.59	10.99	
GAFTA 392	13.10	5.51	1.76	0.68	0.68		11.30	11.70	
GAFTA 394							11.37	11.56	
GAFTA 395	12.89	6.28	1.71		0.63	0.00	11.46	11.59	1846
GAFTA 398							11.78	11.52	
GAFTA 400									
GAFTA 401	12.70	5.54	1.71	0.68	0.62	0.01	11.83	11.42	
GAFTA 402	13.68	5.10	1.78	0.49	0.65	0.01	11.53	11.30	
GAFTA 403	13.10	5.60	1.56	0.34	0.72	0.04	10.80	11.60	
GAFTA 405	13.83	5.58	1.66	0.63	0.59	0.02	11.82	11.42	
GAFTA 406							11.66	11.43	
GAFTA 407	13.46	5.47			0.58		11.70	11.47	
GAFTA 409							11.30	11.00	
GAFTA 411	13.15	5.53	1.79	0.45	0.64		11.82	11.19	
GAFTA 412	13.34	5.46			0.61		11.70	11.40	
GAFTA 414	13.44	5.51	1.80				11.80	11.40	
GAFTA 415	13.60	5.60	2.15	0.10	0.66		11.60	13.30	896
GAFTA 417	13.72	5.94	1.69	0.32	0.54	0.01	11.71	11.35	
GAFTA 418	13.50	5.78			0.65		11.30	11.60	1320
GAFTA 419	12.30	5.99			0.60		11.04	11.54	1000
GAFTA 420	13.61	5.79	1.88	0.30	0.63	0.02	11.71	10.91	
GAFTA 421	10.92	5.39		1.27	3.06		9.61	11.21	
GAFTA 422	13.60	5.86	1.81	0.42	0.64	0.02	11.64	12.38	
GAFTA 423							11.74	11.77	
GAFTA 424							11.89	11.26	
GAFTA 425									
GAFTA 426	13.30	5.65	1.68	0.48	0.58	0.01	11.82	11.64	550
GAFTA 427	13.50						11.92	11.40	
GAFTA 428	13.00	5.70	1.60	0.40	0.71	0.04	10.50	11.20	
GAFTA 430	13.38	5.42			0.59		11.66	11.38	
GAFTA 431	13.60	5.40	1.71	0.52	0.57	0.02	11.80	11.67	
GAFTA 432	13.30	5.60	1.87				11.62	11.16	1900
GAFTA 433	13.81	4.94	1.62	0.38	0.60	0.10	10.92	10.54	
GAFTA 434	13.10	5.60	1.76	0.49	0.60	0.01	11.71	11.50	
GAFTA 435	13.28	5.46	1.68		0.63		11.75	11.29	
GAFTA 436							11.80	11.61	7
GAFTA 437	13.31	5.48	1.66	0.55	0.63	0.01	11.70	11.42	
GAFTA 438	13.36	5.48	11.68				11.70	11.42	
GAFTA 439	12.75	5.29	1.86	0.53	0.61	0.04	11.23	10.99	
GAFTA 442	13.07	6.06	1.70	0.41	0.60	0.03	12.07	11.50	
GAFTA 443	13.12	5.59	1.68				11.80	11.37	
GAFTA 444	13.66	5.38	1.60	0.50	0.67	0.02	11.68	11.43	
GAFTA 446							11.88	11.38	
GAFTA 447							11.79	11.59	
GAFTA 448							11.38	11.29	
GAFTA 449							11.57	11.12	
GAFTA 450							11.69	11.01	
GAFTA 451	13.72	5.85	1.87	0.41	0.65	0.01	11.82	11.42	
GAFTA 452	12.76	5.58	1.61	0.61	0.61	0.02	12.24	11.35	
GAFTA 453	12.86	5.45	1.65	0.64	0.63	0.01			1785
GAFTA 454	13.83	5.75			0.62		11.66	11.55	
GAFTA 455	13.53	5.65	1.63	0.49	0.63		11.50	11.50	
GAFTA 456	13.28	5.55			0.63		11.69	11.44	
GAFTA 457	13.10	5.60	1.80	0.50	0.70	0.03	11.20	12.50	1614
GAFTA 458	12.16	5.40			1.65		9.98	11.20	
GAFTA 459							11.82	11.35	
GAFTA 460	13.80	5.33	1.62	0.50	0.66	0.02	11.90	12.37	
GAFTA 461	13.41	5.58	1.53	0.55	0.59	0.03	11.65	11.48	
GAFTA 462	13.67	5.51	1.62	0.52	0.68	0.03	11.65	11.40	
GAFTA 463	13.41	5.42	1.77	0.54	0.67	0.02	11.50	11.31	
GAFTA 464 - Number Re									
GAFTA 466	13.48	5.44			0.60		11.61	11.41	
GAFTA 467	11.89	5.73	1.95	0.73	0.63	0.03	10.35	12.11	
GAFTA 468	14.00	5.66	1.71	0.59	0.62	0.01	12.14	12.53	
GAFTA 469	12.93		2.20		0.16				
GAFTA 470									
GAFTA 471									
GAFTA 472	13.20	5.55	1.71	0.55	0.61		11.75	11.45	
GAFTA 473	13.40	5.42			0.64		11.67	11.57	
GAFTA 474									
GAFTA 475							11.00	10.56	
GAFTA 476	13.30	5.63	1.90	0.52	0.60		11.61	11.41	

Table 3 - z scores.

Laboratory Number	Feed Moisture z Score	Feed Protein z Score	Feed Oil z Score	Feed Fibre z Score	Feed Ash z Score	Feed Sand z Score	Grain Moisture z Score	Grain Protein z Score	Mycotoxin DON z Score
GAFTA 002							-1.58	-0.65	
GAFTA 004	-0.19	-1.32	0.00	-0.62	0.00	-0.23	0.00	-0.31	
GAFTA 006	-0.56	-0.83	-0.71	0.02	0.53	-0.23	0.81	0.18	
GAFTA 007	-0.46	-0.08	0.22	0.90	0.26	1.61	-0.26	-0.23	-1.36
GAFTA 009	-0.74	-0.17	-0.99	1.59	-0.26	-0.60	0.84	-0.44	
GAFTA 013	-0.23	-0.50	0.11	-0.16	-0.26	1.15	0.81	-0.29	0.18
GAFTA 014	0.02	2.27	-0.05	-0.99	0.39	-0.23	1.35	2.13	-1.71
GAFTA 015	-0.56	-0.08	-0.44	-0.02	-0.26	0.23	0.69	-0.16	
GAFTA 016	-0.88	-0.21	0.99	-0.21	0.53	3.91	-1.24	-0.13	
GAFTA 018	-0.81	-0.04		0.39	1.32		1.01	-0.39	
GAFTA 019	2.18	-0.37	-0.38	-0.02	0.66	-0.14	1.41	0.54	-0.47
GAFTA 024	1.00	-0.45	-6.01			0.55	-0.35	0.05	
GAFTA 025	0.95	0.33	-0.22				0.00	-0.10	
GAFTA 026	0.42	5.17	-2.75		-3.29				
GAFTA 029	-0.51	-0.58	0.05	-0.25	0.79	-0.69	0.92	2.59	
GAFTA 032	0.74	-0.25	0.22		0.53	-0.69	0.00	-0.05	-0.13
GAFTA 033	-0.65	1.99	1.65	2.15	5.00	-0.69	0.86	-1.09	
GAFTA 035	-0.72	-0.12	-0.44	-0.16	-0.26	0.23	0.89	-0.34	
GAFTA 039	-1.07	0.33	0.11	0.72	0.00	-0.23	0.58	-0.03	
GAFTA 040	-1.16	-0.25	1.98	1.64	1.18	0.69	-0.06	0.31	
GAFTA 044	-1.65	-0.04	-0.38				0.00	-0.08	
GAFTA 046	-0.90	0.99	-0.33	0.67	0.53	-0.23	0.23	0.83	
GAFTA 047	-0.88	1.20	-0.93	-0.76	0.39	-0.69			
GAFTA 050	1.21	0.99	0.00	2.15	-0.13	-0.23	-0.06	0.39	
GAFTA 051							-0.29		
GAFTA 058	-0.51	-0.37	-0.05	0.21	-0.39	-0.69	-0.17	-0.31	0.94
GAFTA 060	-0.67	-0.21	0.11	4.50	0.26	-0.23	-0.26	1.37	-0.22
GAFTA 062	-0.65	-0.04	0.00	0.76	-0.26	-0.23	-0.23	0.21	
GAFTA 063	1.25	0.37	0.05	-0.12	0.25	-0.46	0.32	1.04	-4.28
GAFTA 064	-0.74	-0.21	0.16	2.28	0.66	2.07	-0.58	-0.60	-0.04
GAFTA 065	-0.88	-0.08	-0.11	0.02	-0.26	-0.69			
GAFTA 066							1.01	-0.39	
GAFTA 067							0.86	-1.61	
GAFTA 069	-0.02	0.70					0.43	0.13	
GAFTA 071	0.02	-0.33	-0.11	-0.02	-0.13	-0.23	-0.20	-0.05	-6.61
GAFTA 072	0.77	-0.83	0.22	-0.44	0.13	0.23	0.43	0.60	
GAFTA 073	-1.39	0.17	0.00				0.23	0.21	
GAFTA 074	1.23	-0.37	0.22	0.35	-0.26	-0.69	0.46	0.03	0.04
GAFTA 075	-0.65	0.33	0.00	0.76	-0.26	-0.69	0.58	-0.31	-0.17
GAFTA 078							0.00	0.16	-0.63
GAFTA 079	1.14	0.54	-0.05	0.30	-0.13	0.23	0.35	0.10	-1.10
GAFTA 080	-0.42	0.33	0.00	-0.16	-0.26	-0.23	0.75	0.73	
GAFTA 081	1.11	0.41	0.00	-0.16	0.30	-0.37	0.43	0.96	
GAFTA 083	0.28	2.15	0.00	0.76			-0.17	-0.05	
GAFTA 084	-0.26	-0.21	-0.16	0.07	1.05		2.71	2.41	
GAFTA 085	-0.42	0.12	1.21	0.95	1.05	-0.69	0.29	0.21	0.70
GAFTA 086	-0.21	0.50	-0.38	-0.90	-0.79	0.69	1.01	0.00	
GAFTA 094	1.25	0.21	0.05				0.37	0.21	3.46
GAFTA 095	0.14	0.00	-0.33	0.99	-0.53	0.23	0.23	0.05	1.04
GAFTA 096							-0.49	-1.53	
GAFTA 097	-0.39	-1.16	-0.71	0.39	-0.26	1.61	-0.17	-1.48	
GAFTA 099							0.23	1.56	
GAFTA 100	-1.16	0.62	0.22	0.72	0.66	-0.23	0.20	-0.52	
GAFTA 101							-0.35	-0.18	
GAFTA 103							0.29	-0.44	
GAFTA 104	1.90	-0.12	-0.38	1.22	-0.26	0.46	0.58	-0.05	-0.45
GAFTA 105	-0.23	0.17			-0.39		0.60	0.75	
GAFTA 107	-0.74	-0.08	0.00	0.25	0.13	0.69	0.75	0.18	
GAFTA 108	1.04	0.33	-0.11		0.66		0.23	-0.23	
GAFTA 109							-0.12		
GAFTA 112	0.14	0.17	-0.33	0.67			0.32	-0.03	
GAFTA 113	0.42	-0.17	-0.11				-0.29	0.16	
GAFTA 115	1.21	-0.45	-0.16	-0.21	0.00	0.23	0.29	-0.05	-3.12
GAFTA 116	-0.51	1.03	-0.11	-0.39	0.00	-0.18	-0.26	0.62	-3.35
GAFTA 117	-0.46	0.45	0.22	0.07	0.13	-0.69	0.37	0.18	
GAFTA 118							-0.09	-0.44	
GAFTA 121	-0.26	0.68	-0.78	-0.55	-0.09	-0.05	0.06	0.66	
GAFTA 122	-0.88	-0.25	-0.27	-0.07	0.26	0.23	0.55	0.05	
GAFTA 123	0.05	0.54	0.49	-0.67	0.13	-0.23	0.29	1.14	
GAFTA 124	-0.49	-0.95	0.11	-0.35	0.26	0.23	-0.60	-0.70	
GAFTA 125	0.51	-0.25			-0.13		-0.23	0.03	3.29
GAFTA 126	1.18	0.21	-0.11				0.06	0.62	
GAFTA 127	-0.39	0.21	1.98	-0.02	-0.26	2.62	-1.01	3.06	0.05
GAFTA 128	1.09	0.25	-0.44	1.22	-0.26	-0.69	0.63	0.08	
GAFTA 131	-1.07	0.41	0.38	0.21	0.26	-0.23	0.58	-0.03	
GAFTA 132							1.07	-0.70	-2.88
GAFTA 133	-0.19	-0.33	-0.44	0.44	0.00		-0.14	-0.34	0.24
GAFTA 134	-0.95	-0.17	-0.27	3.81	0.00	0.46	-0.26	-0.34	-0.08
GAFTA 135							0.20	0.73	
GAFTA 136	-0.53	-0.17			-0.39				

Laboratory Number	Feed Moisture z Score	Feed Protein z Score	Feed Oil z Score	Feed Fibre z Score	Feed Ash z Score	Feed Sand z Score	Grain Moisture z Score	Grain Protein z Score	Mycotoxin DON z Score
GAFTA 138	-0.07	-0.08	-0.01	-0.63	-0.33	1.61	-0.32	0.62	-0.31
GAFTA 142	-0.37	0.12	0.82	-0.16	0.13	-0.69	-0.06	0.29	3.11
GAFTA 144							-0.58	-0.29	
GAFTA 145	-1.81	0.83	0.82	-0.53	0.26	-0.69	-3.17	3.58	
GAFTA 146	0.51	-0.29	0.00	0.48	0.66	0.23	0.26	-0.18	-0.09
GAFTA 148	-0.60	2.07	-0.66	-0.58	-0.05		0.12	-0.18	
GAFTA 150	-1.32	-0.29	0.00	-1.45	-1.58	-0.23	-0.29	-0.18	1.38
GAFTA 152	1.07	0.21	-0.33				0.17	0.10	
GAFTA 156	-0.16	0.66	-0.05	-1.08	5.00		-0.03	1.74	
GAFTA 157	-0.60	0.95	-0.44	0.62	0.26	-0.23	0.29	0.52	
GAFTA 158							0.37	-0.75	
GAFTA 162							0.29	0.16	
GAFTA 163	0.05	-0.45	-0.49	-0.25	-0.26		-0.29	-0.16	
GAFTA 164	0.51	-0.08	0.00	0.76	-0.26	-0.69	-1.15	0.21	
GAFTA 165	-0.72	0.21	0.11	0.30	-0.39	-0.69	-1.15	2.41	
GAFTA 168							0.00	-0.05	
GAFTA 169	0.49	-0.25	-0.11	0.02	-0.13	0.69	-0.26	-0.03	
GAFTA 172	0.05	0.37	-0.82	0.16	0.00	0.78	-0.17	0.21	
GAFTA 173	0.32	-0.08	-0.38	0.44	0.53	0.23	0.20	-0.05	
GAFTA 174							0.23	-0.13	
GAFTA 175	0.05	-0.50	-0.11	0.30	-0.26	0.23	-0.29	0.10	
GAFTA 177	0.28	-0.08	0.33	0.76	0.00	-0.23	1.15	-0.26	-0.76
GAFTA 178	0.74	-0.33			0.13		-0.29	0.39	
GAFTA 179	0.88	0.17	-0.33				-0.17	-0.57	
GAFTA 180	0.16	-0.08	0.82				0.43	0.13	
GAFTA 181	1.00	-0.81	0.22		0.00		0.32	-0.76	
GAFTA 183	0.00	-0.25		0.07			0.00	0.44	
GAFTA 184	0.00	-0.04	-0.38	0.12	0.53		0.26	-0.10	
GAFTA 185	-0.07	0.08	0.05		0.00		0.78	0.03	-1.17
GAFTA 186	0.09	0.41			0.13		0.29	0.13	
GAFTA 187	-0.30	0.08	0.22				0.03	-0.08	
GAFTA 188	0.88	-0.66	0.82	5.61	0.39	0.87	-1.01	-0.65	-1.71
GAFTA 190	1.41	1.03	-0.44	2.19	-0.39		0.58	-0.62	
GAFTA 191	0.12	0.37	0.55				-0.14	0.16	
GAFTA 192	-0.02	-0.17			0.13		0.00	-0.21	
GAFTA 196	1.07	-0.37	0.05	-0.62	-0.53	0.23	0.66	0.10	
GAFTA 199	-0.88	-0.33	-1.10	0.58	-0.26				
GAFTA 202	-0.19	0.04	0.33				-0.49	0.18	
GAFTA 203	-0.23	0.08			0.26		0.00	0.08	
GAFTA 208	0.00	-0.33	0.11	-0.07	0.00	-0.69	-0.12	-0.44	
GAFTA 209	-1.76	0.91	0.22	-0.02	-0.26	-0.60	-0.35	0.05	
GAFTA 210							0.29	-0.93	
GAFTA 211	1.55	0.04			-0.66		0.29	0.47	
GAFTA 215	0.37	-0.41			-0.26		-0.37	0.21	
GAFTA 217	-0.60	-0.25	0.99	-0.67	0.13	0.00	0.72	3.11	
GAFTA 218	-0.42	0.91	-0.27	-0.58	-0.26		-0.32	-0.21	
GAFTA 219	0.74	-0.08	0.77	-0.25	0.26	-0.23	-1.18	-0.34	
GAFTA 220							0.12	0.13	
GAFTA 221	0.51	0.33	0.33	-0.35	0.00		0.29	-0.57	
GAFTA 226							-0.03	-0.08	
GAFTA 229	1.25	-0.66			0.79		0.75		
GAFTA 230	-0.88	0.00	0.77		0.53				
GAFTA 231	-0.67	-0.33	0.00	-2.46	0.66	-0.23	0.43	-0.47	-2.39
GAFTA 232							0.29	0.39	
GAFTA 234	1.69	0.33	0.22	-0.62	0.13		1.12	-0.03	0.14
GAFTA 235							-0.17	-0.49	
GAFTA 236	0.07	-0.25	0.05	0.02	0.13		-0.23	-0.13	
GAFTA 238	-1.23	-1.45	0.00		-2.90		-2.30	2.80	
GAFTA 243	1.67	-0.08	-0.55	0.12	-0.66		-0.29	-0.31	-0.09
GAFTA 246	1.58	0.00	-0.05	-0.48	0.39	-0.23	-0.03	0.23	
GAFTA 249							-0.52	-0.21	
GAFTA 255							0.63	-0.47	1.44
GAFTA 258	-0.42	-0.87	0.55	-0.62	0.26	-0.23	-1.15	-0.05	
GAFTA 261	1.44	1.16	1.10	-1.32	-0.26		0.58	0.47	
GAFTA 262	-0.63	-0.04	-0.27	0.16	0.26	0.69	1.32	-0.44	
GAFTA 263	-0.35	-2.07	0.00				3.28	9.72	
GAFTA 264							-0.29	-0.05	
GAFTA 266	-0.65	1.99	1.65	2.15	5.00	-0.69	0.86	-1.09	
GAFTA 268							0.06	-0.49	
GAFTA 269							0.06	-0.70	
GAFTA 272	-0.95	3.06	0.00		1.84		-0.84	1.27	
GAFTA 274	1.90	-0.08	0.00	-0.16	-0.26	3.91	1.15	-2.13	0.59
GAFTA 275	0.95	0.17	0.11	-0.07	0.26	-0.23	1.32	-0.10	
GAFTA 276	-0.44	0.21	-0.77	0.02	0.00	-0.23	0.23	0.16	
GAFTA 277	1.02	-0.08	-0.22	-0.02	0.39	0.69	-0.29	-0.05	-6.62
GAFTA 278	-0.02	-0.29			-0.39		0.17	-0.49	
GAFTA 279	0.02	0.17	0.00	-0.12	-0.13	-0.64	-0.06	-0.08	2.71
GAFTA 280	-0.53	0.33	0.00	-0.39	-0.26	0.23	1.38	-0.05	
GAFTA 281	-0.42	0.54	-0.22	-1.18			-0.20	1.50	
GAFTA 282							0.09	-0.13	
GAFTA 283							0.00	-0.26	

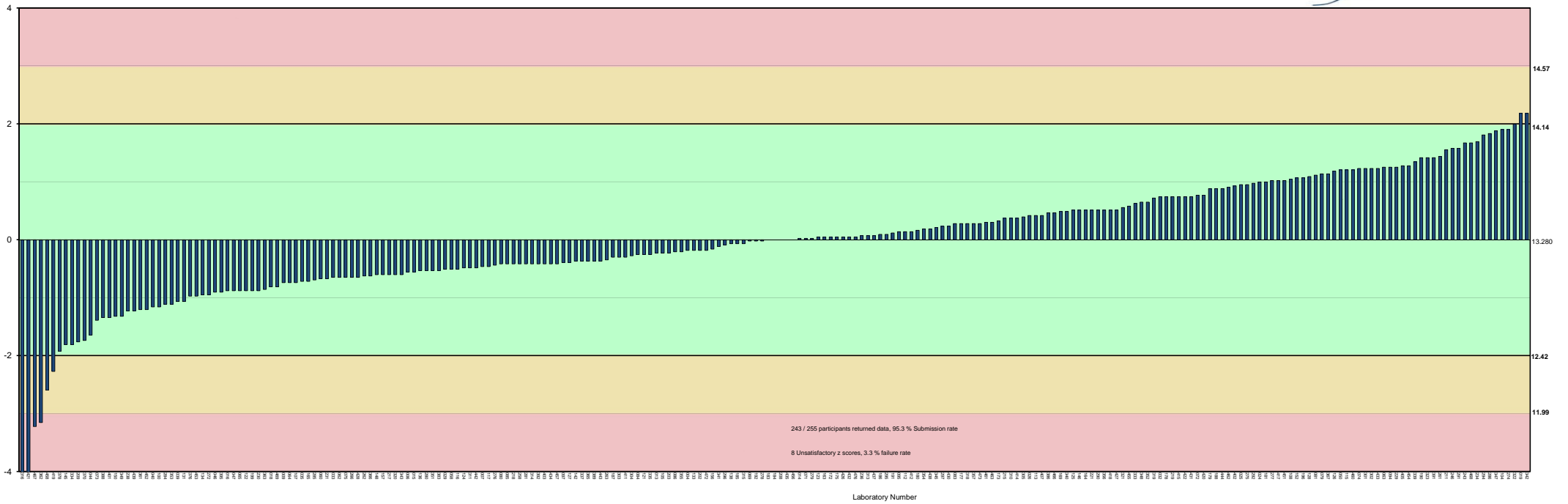
Laboratory Number	Feed Moisture z Score	Feed Protein z Score	Feed Oil z Score	Feed Fibre z Score	Feed Ash z Score	Feed Sand z Score	Grain Moisture z Score	Grain Protein z Score	Mycotoxin DON z Score
GAFTA 284	-1.11	0.79	-0.05	0.25	-0.53	1.61	0.58	2.00	
GAFTA 285	-0.70	0.08	0.22	0.25	-0.26	-0.23	0.26	0.18	
GAFTA 286	1.83	0.17	-0.33	0.81	0.66		-0.89	0.47	
GAFTA 288							0.00	0.21	
GAFTA 289							0.55	2.90	
GAFTA 290	0.51	-0.50	0.00	0.02	-0.53	-0.32	-0.29	1.84	
GAFTA 291	1.58	0.04	-0.66	2.24	0.53		-0.81	0.31	
GAFTA 292	0.97	-0.50	-0.99	8.19	0.39	3.22	0.14	-0.54	
GAFTA 294	1.81	-0.37			0.00		-0.43	0.31	
GAFTA 295	0.09	0.00	0.11	-0.16	-0.13	-0.23	-0.06	-0.10	
GAFTA 296	-0.09	-1.03	-0.49	-0.07	-0.26		-2.88	-1.45	
GAFTA 297	0.23	-0.08	-0.05				0.00	0.26	
GAFTA 300							0.35	0.18	
GAFTA 301	1.23		0.77	-0.95	0.66	0.23	-0.35		0.14
GAFTA 302	1.23	0.66	0.16	0.44	-0.53	0.23	0.26	0.21	
GAFTA 303	-0.30	0.37	0.00	0.16	-0.26	1.15	0.00	2.31	
GAFTA 304	-0.28	0.08	-0.27	0.72	-0.26	-0.23	0.29	0.26	
GAFTA 305	0.39	-0.33			-0.13		-0.29	-0.03	0.59
GAFTA 306							0.29	0.10	
GAFTA 307									
GAFTA 309							-0.20	0.03	
GAFTA 310	0.37	-0.91				-0.37	-0.29	-0.03	
GAFTA 311	-0.49	-0.91	0.27	-0.95	0.26	0.74	0.58	2.57	
GAFTA 312							-4.61	2.28	
GAFTA 313	0.07	-0.25	-0.22		-0.13		-0.35	0.13	
GAFTA 314	-0.42	0.17	-0.11				0.26	0.05	1.72
GAFTA 315	-0.07	0.21	0.77	0.39	0.92	2.07	0.63	-0.03	
GAFTA 316	-30.76	-13.73	-9.13	-2.38	-5.53		-33.64	-10.94	
GAFTA 317							0.86	-0.16	
GAFTA 318	0.28	0.25	-0.27		-0.26		-0.29	2.67	
GAFTA 319	0.72	-0.29		0.07			-0.58	0.00	
GAFTA 320	-0.60	-1.45	-0.11	-0.07	1.45	8.04	-0.84	-2.28	
GAFTA 321	0.56	0.41	-0.05		-0.13	0.23	0.66	0.34	
GAFTA 322	1.99	-3.23	1.10	-0.07	0.26	-0.69	1.09	0.29	
GAFTA 323	1.41	-0.41			-0.53		1.07	0.26	
GAFTA 324							0.86	0.21	
GAFTA 329							0.32	0.52	
GAFTA 333	0.63	0.12			0.26		0.23	0.08	
GAFTA 334	-1.81	-0.50	0.27	0.07	-0.53	-0.69	-0.29	-1.35	
GAFTA 335	-0.26	0.54	-0.44				-0.14	0.00	
GAFTA 336							0.86	-0.57	
GAFTA 337	-0.37	0.25	-0.38	0.72			0.23	-0.08	
GAFTA 338									
GAFTA 339	1.35	-0.50	-1.10	-1.32	0.13	3.91	-2.16	3.19	
GAFTA 340	0.49	-0.37			-0.26		-0.29	-0.08	
GAFTA 341	-0.12	-0.08	1.37	-0.13			-0.14	-0.13	
GAFTA 342	2.18	0.08	1.43		0.13		0.55	0.83	
GAFTA 343	-0.60	-0.37	-0.49	-0.16	0.26	0.23	-1.15	1.89	
GAFTA 345	0.21	0.17	-0.33	0.62	0.53	0.69	-0.12	0.29	
GAFTA 347	1.88	0.50	0.71	-0.35	0.00	0.23	0.29	-0.13	0.41
GAFTA 348	0.65	1.36	0.22				0.46	-0.29	
GAFTA 349	-1.32	0.08	1.26	-1.55	0.39	3.68	0.09	2.83	
GAFTA 350									
GAFTA 351	-0.53	-0.04			-0.26	-0.23	-0.20	-0.52	1.00
GAFTA 352	0.65	2.52	-0.16				0.23	-0.23	
GAFTA 353	-1.11	8.27	-0.77	-0.16	0.00	-0.23	0.58	4.28	
GAFTA 354	0.19	0.08			-0.13		-0.26	0.08	
GAFTA 355	-0.21	-0.04	-0.16	0.25	0.00	2.07	0.66	2.05	-6.62
GAFTA 356	0.51	-0.50	0.55	0.99	0.66		0.00	0.44	
GAFTA 357	0.28	0.33	2.20	4.45	0.92	1.61	0.72	0.18	0.14
GAFTA 359		-0.08	0.55	-0.62	-0.26		0.46	2.02	
GAFTA 360									
GAFTA 361	-1.21	0.08	0.11	0.58	0.13	-0.23	0.00	-0.03	
GAFTA 362	-3.15	1.16	-0.49	-0.21	0.79	1.15	-4.09	-0.23	
GAFTA 363	-0.86	0.45	0.22	0.62	0.26	-0.23	0.60	-0.21	
GAFTA 364							-0.75	0.60	
GAFTA 365	-0.37	0.58	-0.82	2.01			0.35	-0.23	
GAFTA 366	-0.63	-0.29	-0.05	0.25	-0.26	0.69	0.86	0.29	
GAFTA 367	1.14		0.00		0.51		0.63	1.24	
GAFTA 370	-1.74	0.17	0.38	1.27	1.05	1.61	-2.62	-0.96	1.06
GAFTA 371							-0.03	-0.21	
GAFTA 372							0.23	-0.36	
GAFTA 375		-0.99	0.00	0.72	-0.39		-1.15	-0.47	-0.79
GAFTA 376	-0.97	-0.74	-0.99	2.38	-0.79	1.61	0.60	0.10	
GAFTA 377							-1.73	-0.21	
GAFTA 378	-1.93				-0.53	-0.23			
GAFTA 379							-0.29	2.88	0.28
GAFTA 381							1.12	0.03	
GAFTA 382							-0.23	-0.26	
GAFTA 383	-0.53	-0.66	-0.11	0.39	0.00	1.15	0.75	-0.96	-1.67
GAFTA 384							0.23	1.27	

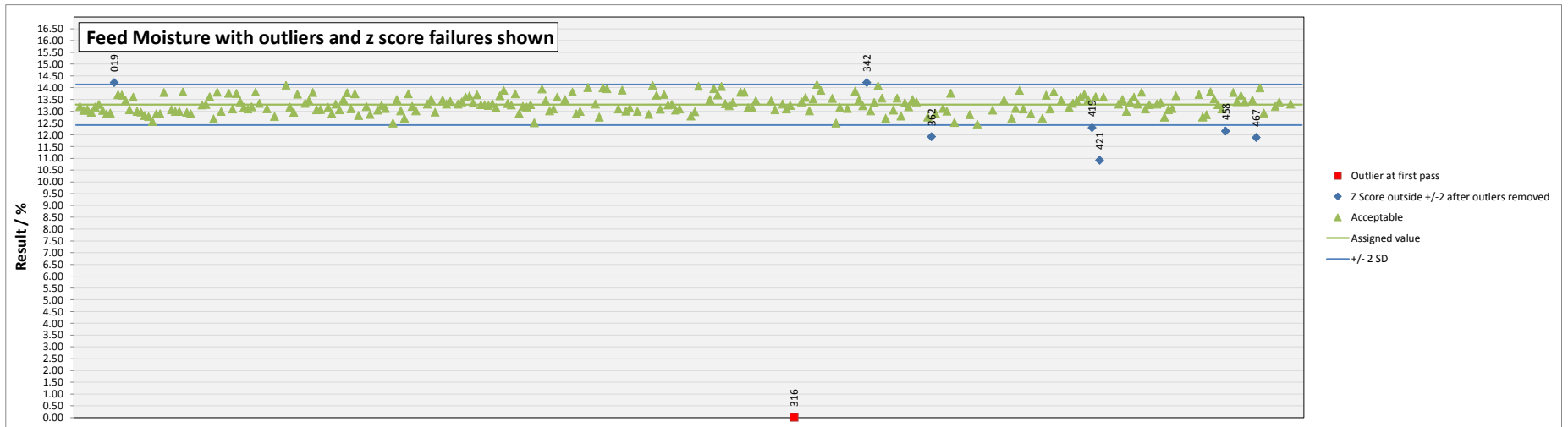
Laboratory Number	Feed Moisture z Score	Feed Protein z Score	Feed Oil z Score	Feed Fibre z Score	Feed Ash z Score	Feed Sand z Score	Grain Moisture z Score	Grain Protein z Score	Mycotoxin DON z Score
GAFTA 385		27.84	0.11	0.44			-0.06	-17.01	
GAFTA 386	0.46		0.82	-0.39	1.05		-1.30		
GAFTA 387							-0.14	-0.41	
GAFTA 388	-1.35	1.99	0.00	-0.16	0.39	0.00	-2.45	0.31	-3.24
GAFTA 389	-0.37	1.12	0.22	-0.67	0.53	-0.23	0.60	0.36	
GAFTA 391	1.41	-0.79	0.27	-0.76	0.53	0.69	-0.32	-1.12	
GAFTA 392	-0.42	-0.04	0.33	0.67	0.79		-1.15	0.73	
GAFTA 394							-0.95	0.36	
GAFTA 395	-0.90	3.14	0.05		0.13	-0.69	-0.69	0.44	1.70
GAFTA 398							0.23	0.26	
GAFTA 400									
GAFTA 401	-1.35	0.08	0.05	0.67	0.00	-0.23	0.37	0.00	
GAFTA 402	0.93	-1.74	0.44	-0.21	0.39	-0.23	-0.49	-0.31	
GAFTA 403	-0.42	0.33	-0.77	-0.90	1.32	1.15	-2.59	0.47	
GAFTA 405	1.28	0.25	-0.22	0.44	-0.39	0.23	0.35	0.00	
GAFTA 406							-0.12	0.03	
GAFTA 407	0.42	-0.21			-0.53		0.00	0.13	
GAFTA 409							-1.15	-1.09	
GAFTA 411	-0.30	0.04	0.49	-0.39	0.26		0.35	-0.60	
GAFTA 412	0.14	-0.25			-0.13		0.00	-0.05	
GAFTA 414	0.37	-0.04	0.55				0.29	-0.05	
GAFTA 415	0.74	0.33	2.47	-2.01	0.53		-0.29	4.87	-2.59
GAFTA 417	1.02	1.74	-0.05	-0.99	-1.05	-0.23	0.03	-0.18	
GAFTA 418	0.51	1.08			0.39		-1.15	0.47	-0.67
GAFTA 419	-2.27	1.94			-0.26		-1.91	0.31	-2.12
GAFTA 420	0.77	1.12	0.99	-1.08	0.13	0.23	0.03	-1.32	
GAFTA 421	-5.47	-0.54		3.39	32.11		-6.02	-0.54	
GAFTA 422	0.74	1.41	0.60	-0.53	0.26	0.23	-0.17	2.49	
GAFTA 423							0.12	0.91	
GAFTA 424							0.55	-0.41	
GAFTA 425									
GAFTA 426	0.05	0.54	-0.11	-0.25	-0.53	-0.23	0.35	0.57	-4.14
GAFTA 427	0.51						0.63	-0.05	
GAFTA 428	-0.65	0.74	-0.55	-0.62	1.18	1.15	-3.46	-0.57	
GAFTA 430	0.23	-0.41			-0.39		-0.12	-0.10	
GAFTA 431	0.74	-0.50	0.05	-0.07	-0.66	0.23	0.29	0.65	
GAFTA 432	0.05	0.33	0.93				-0.23	-0.67	1.94
GAFTA 433	1.23	-2.40	-0.44	-0.72	-0.26	3.68	-2.25	-2.28	
GAFTA 434	-0.42	0.33	0.33	-0.21	-0.26	-0.23	0.03	0.21	
GAFTA 435	0.00	-0.25	-0.11		0.13		0.14	-0.34	
GAFTA 436							0.29	0.49	-6.59
GAFTA 437	0.07	-0.17	-0.22	0.07	0.13	-0.23	0.00	0.00	
GAFTA 438	0.19	-0.17	54.89				0.00	0.00	
GAFTA 439	-1.23	-0.95	0.88	-0.02	-0.13	0.92	-1.35	-1.12	
GAFTA 442	-0.49	2.23	0.00	-0.58	-0.26	0.69	1.07	0.21	
GAFTA 443	-0.37	0.29	-0.11				0.29	-0.13	
GAFTA 444	0.88	-0.58	-0.55	-0.16	0.66	0.23	-0.06	0.03	
GAFTA 446							0.52	-0.10	
GAFTA 447							0.26	0.44	
GAFTA 448							-0.92	-0.34	
GAFTA 449							-0.37	-0.78	
GAFTA 450							-0.03	-1.06	
GAFTA 451	1.02	1.36	0.93	-0.58	0.39	-0.23	0.35	0.00	
GAFTA 452	-1.21	0.25	-0.49	0.35	-0.13	0.23	1.56	-0.18	
GAFTA 453	-0.97	-0.29	-0.27	0.48	0.13	-0.23			1.42
GAFTA 454	1.28	0.95					-0.12	0.34	
GAFTA 455	0.58	0.54	-0.38	-0.21	0.08		-0.58	0.21	
GAFTA 456	0.00	0.12			0.13		-0.03	0.05	
GAFTA 457	-0.42	0.33	0.55	-0.16	1.05	0.69	-1.44	2.80	0.65
GAFTA 458	-2.60	-0.50			13.55		-4.95	-0.57	
GAFTA 459							0.35	-0.18	
GAFTA 460	1.21	-0.79	-0.44	-0.16	0.53	0.23	0.58	2.46	
GAFTA 461	0.30	0.25	-0.93	0.07	-0.39	0.87	-0.14	0.16	
GAFTA 462	0.90	-0.04	-0.44	-0.07	0.79	0.46	-0.14	-0.05	
GAFTA 463	0.30	-0.41	0.38	0.02	0.66	0.00	-0.58	-0.29	
GAFTA 464 - Number Reassigned									
GAFTA 466	0.46	-0.33			-0.26		-0.26	-0.03	
GAFTA 467	-3.22	0.87	1.37	0.90	0.13	0.69	-3.89	1.79	
GAFTA 468	1.67	0.58	0.05	0.25	0.00	-0.23	1.27	2.88	
GAFTA 469	-0.81		2.75		-6.05				
GAFTA 470									
GAFTA 471									
GAFTA 472	-0.19	0.12	0.05	0.07	-0.13		0.14	0.08	
GAFTA 473	0.28	-0.41			0.26		-0.09	0.39	
GAFTA 474									
GAFTA 475							-2.02	-2.23	
GAFTA 476	0.05	0.45	1.10	-0.07	-0.26		-0.26	-0.03	



GAFTA Analysts Scheme 2018 - Round 2

Z Score Distribution for Feed Moisture / % AR

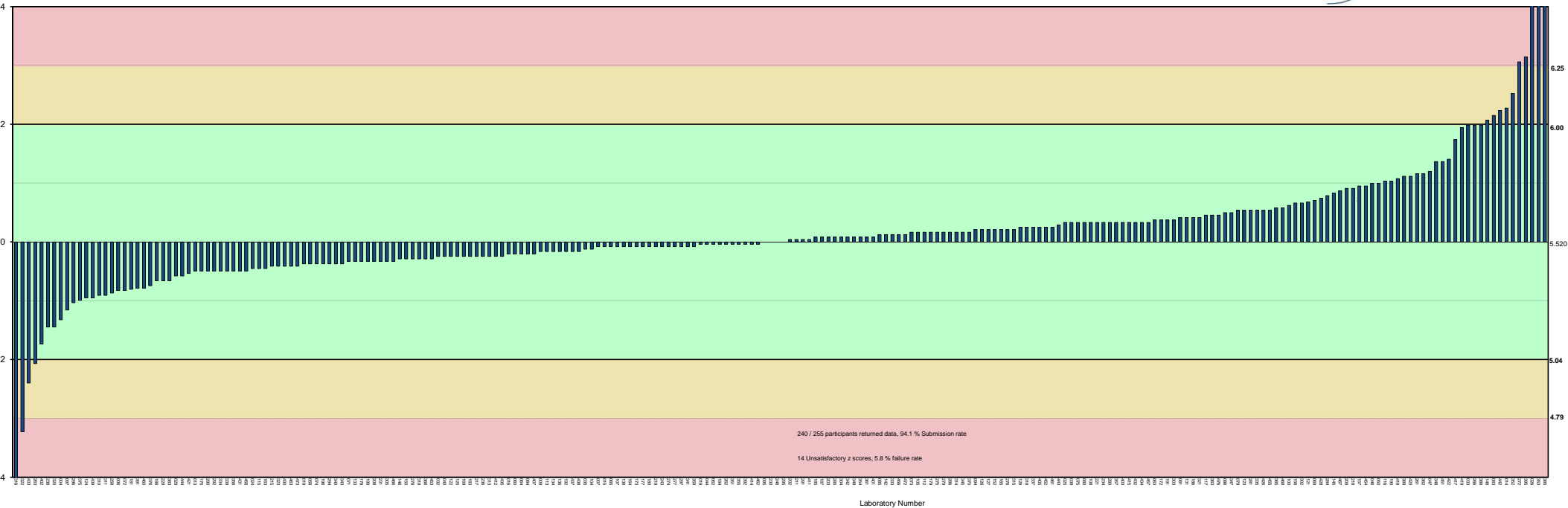


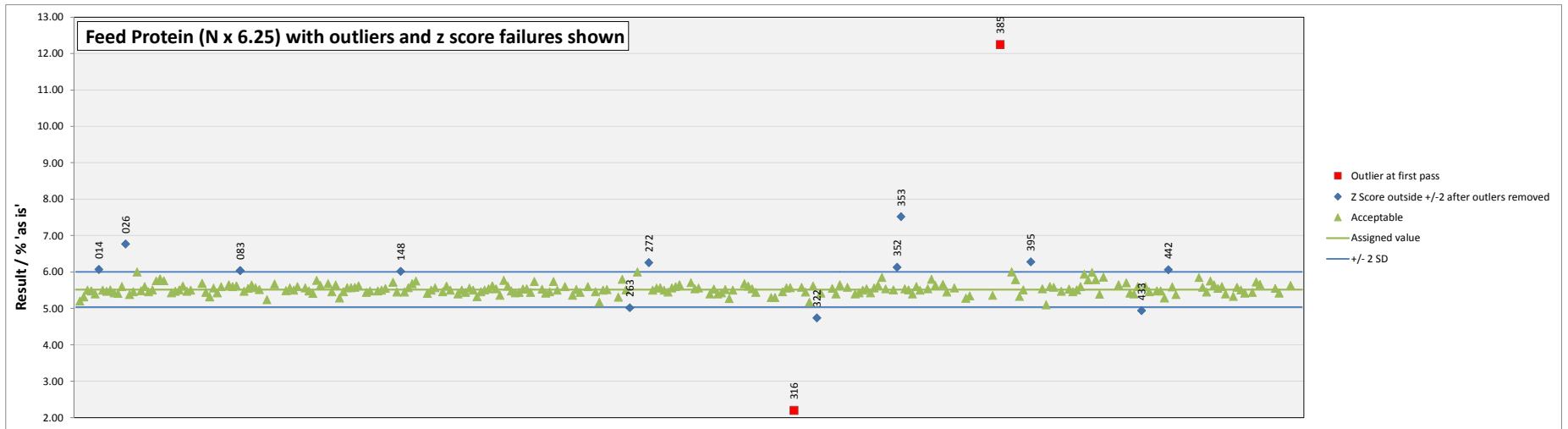




GAFTA Analysts Scheme 2018 - Round 2

Z Score Distribution for Feed Protein / % AR

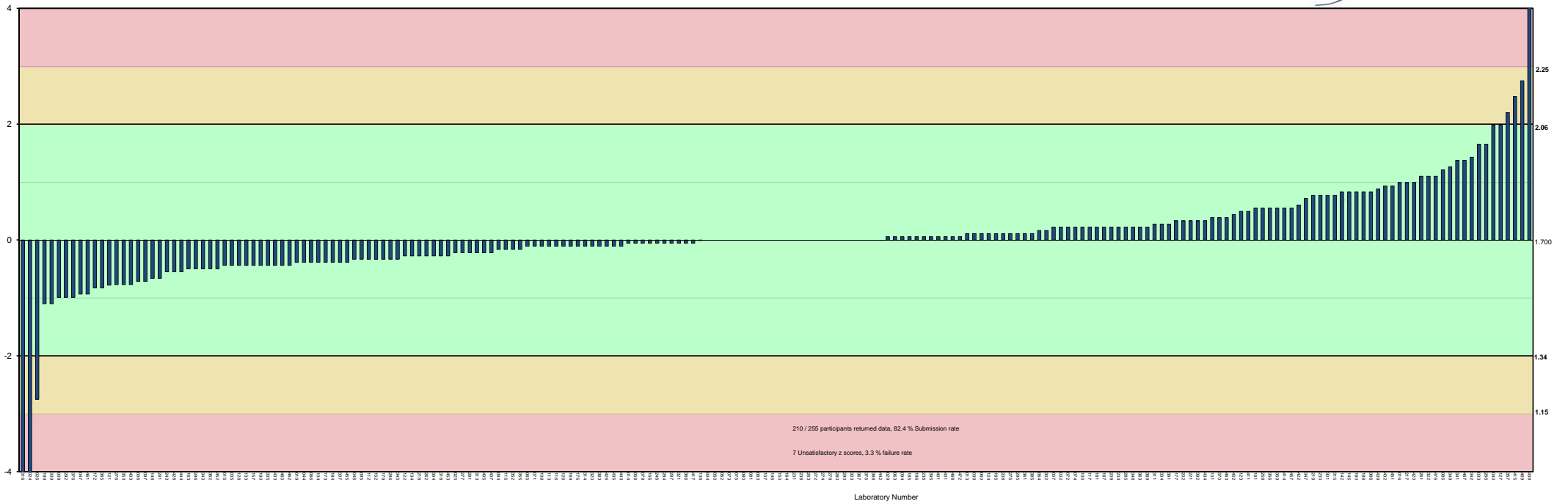


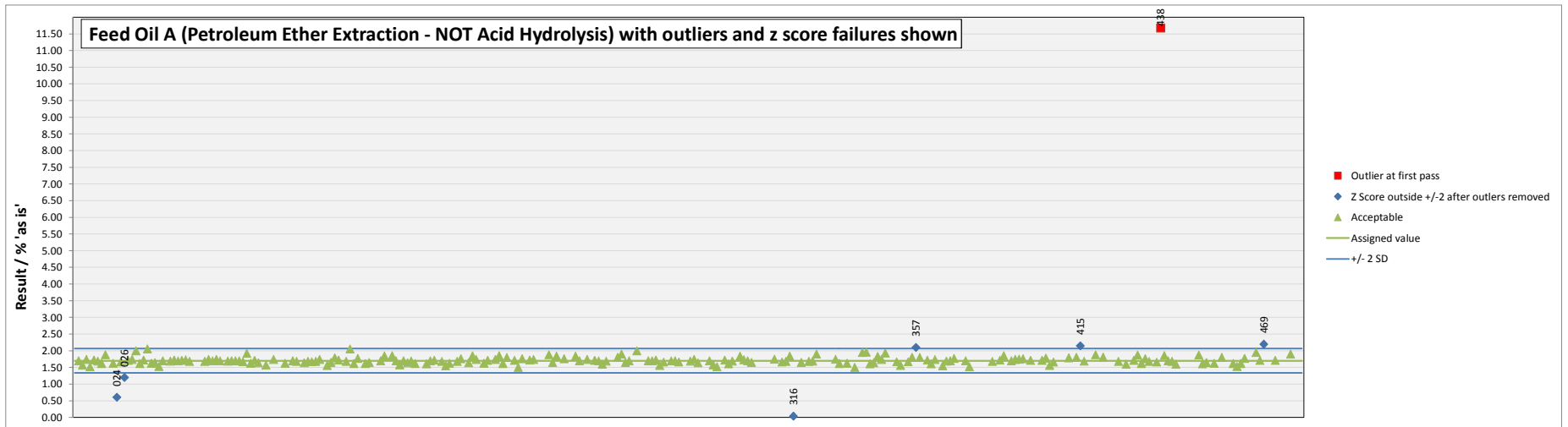




GAFTA Analysts Scheme 2018 - Round 2

Z Score Distribution for Feed Oil / % AR

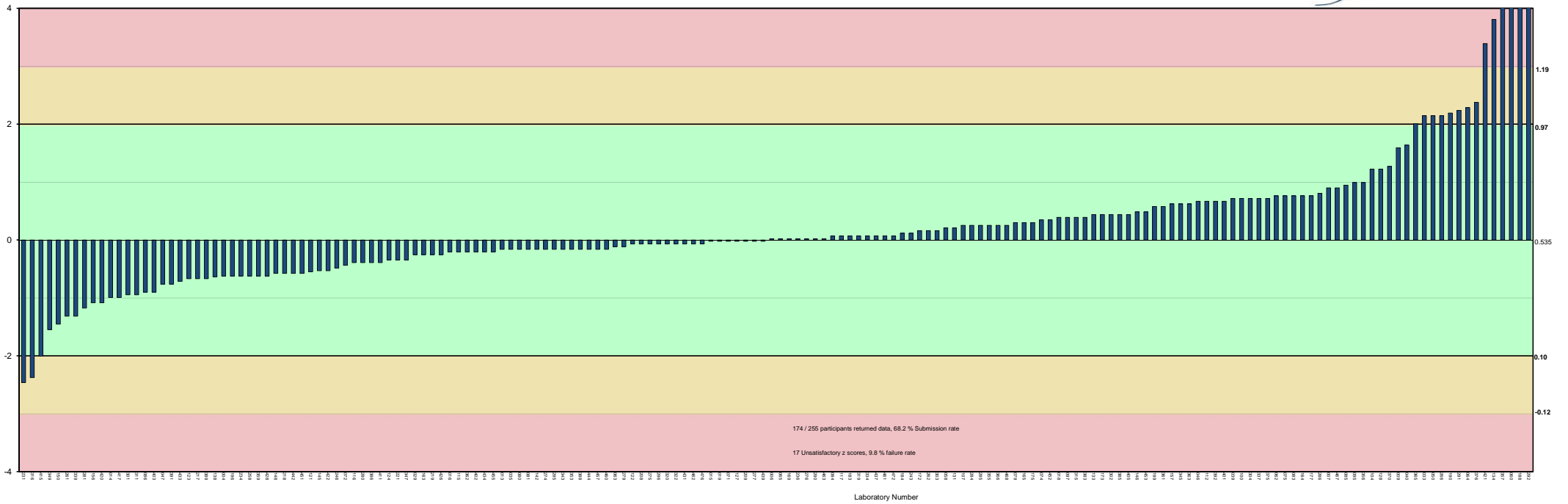




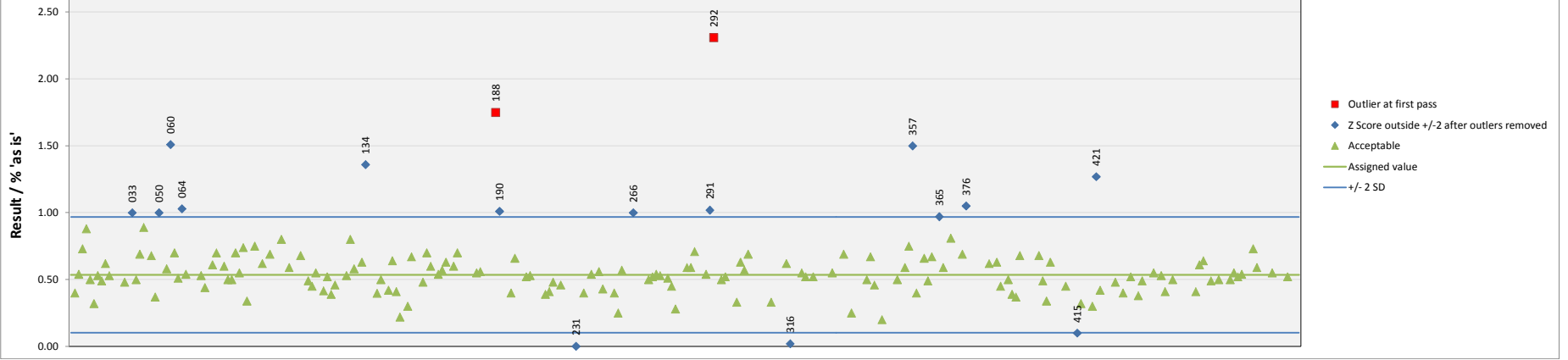


GAFTA Analysts Scheme 2018 - Round 2

Z Score Distribution for Feed Fibre / % AR



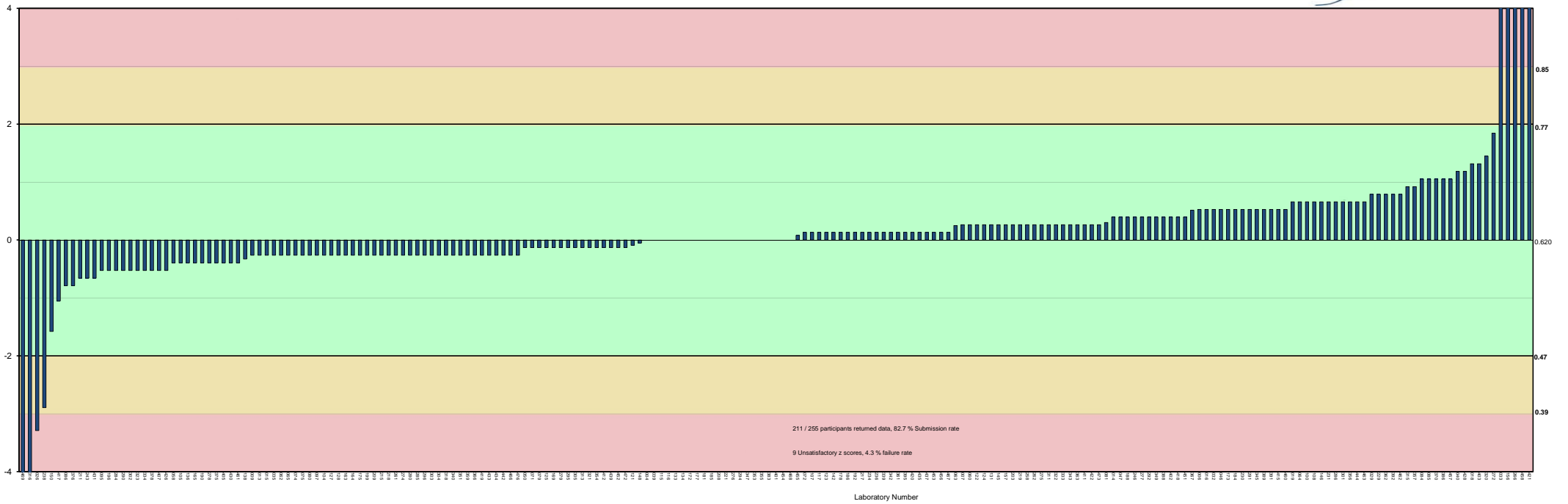
Feed CRF with outliers and z score failures shown

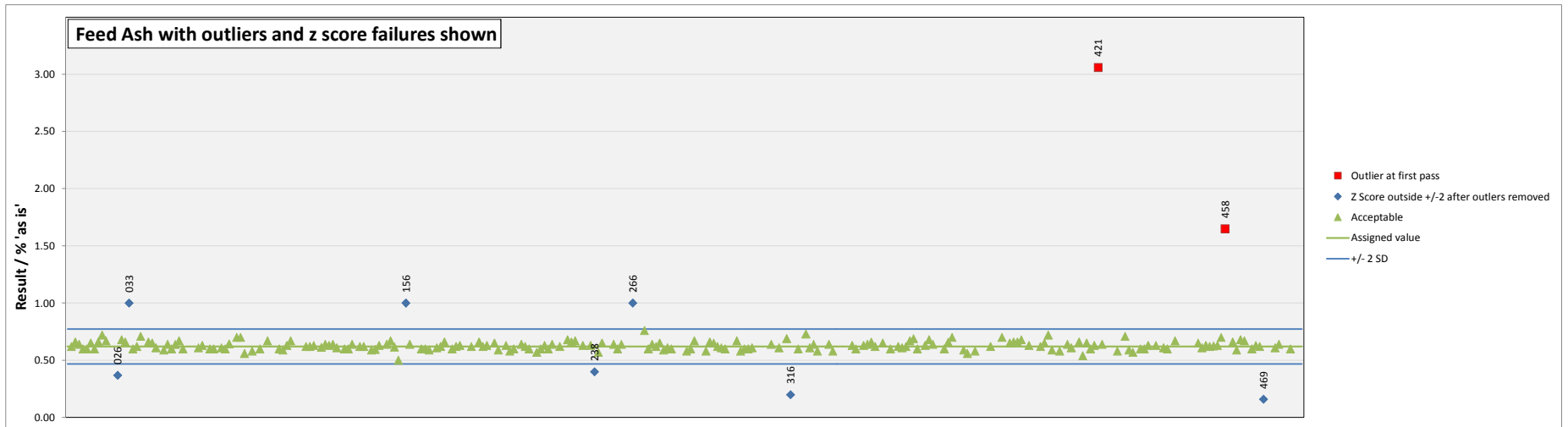




GAFTA Analysts Scheme 2018 - Round 2

Z Score Distribution for Feed Ash / % AR

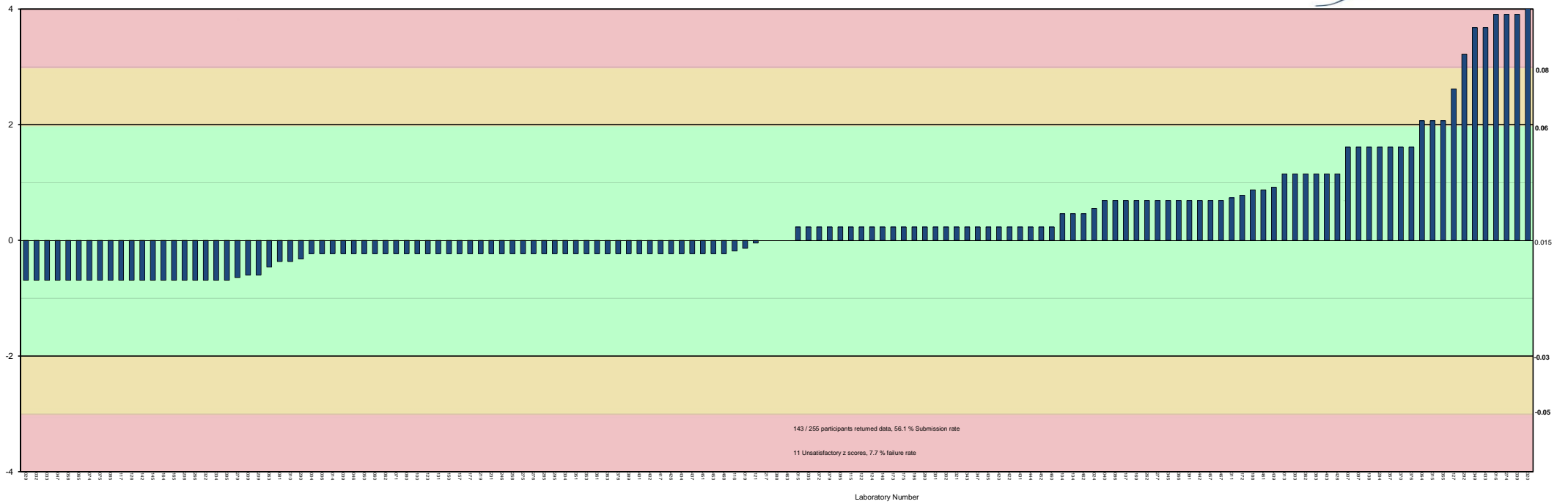


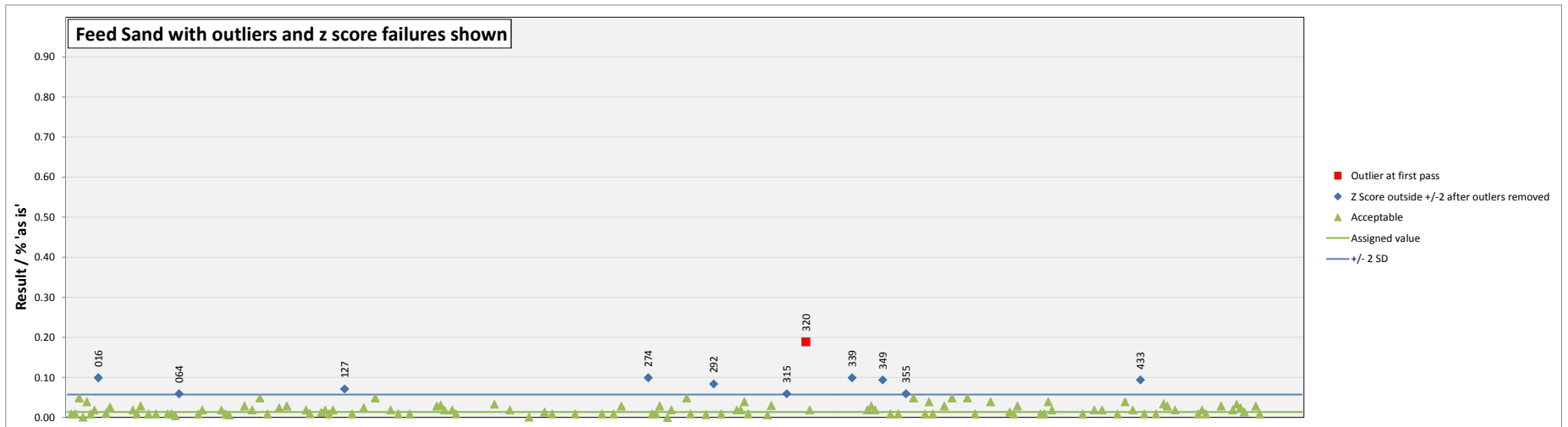


GAFTA Analysts Scheme 2018 - Round 2



Z Score Distribution for Feed Sand / % AR

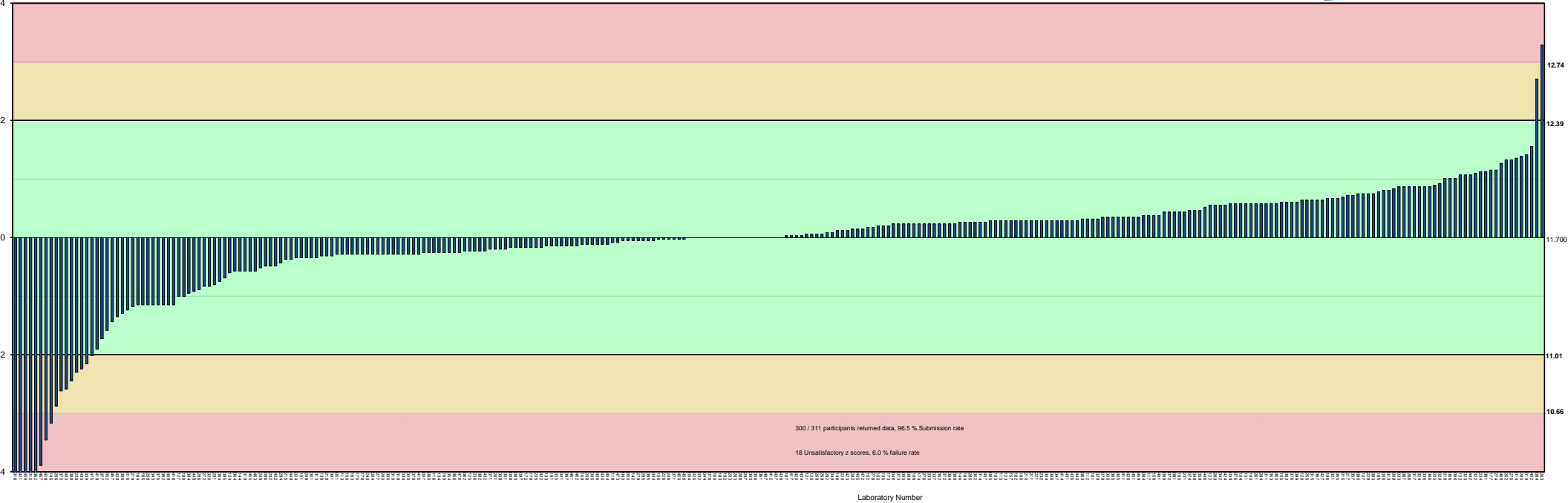


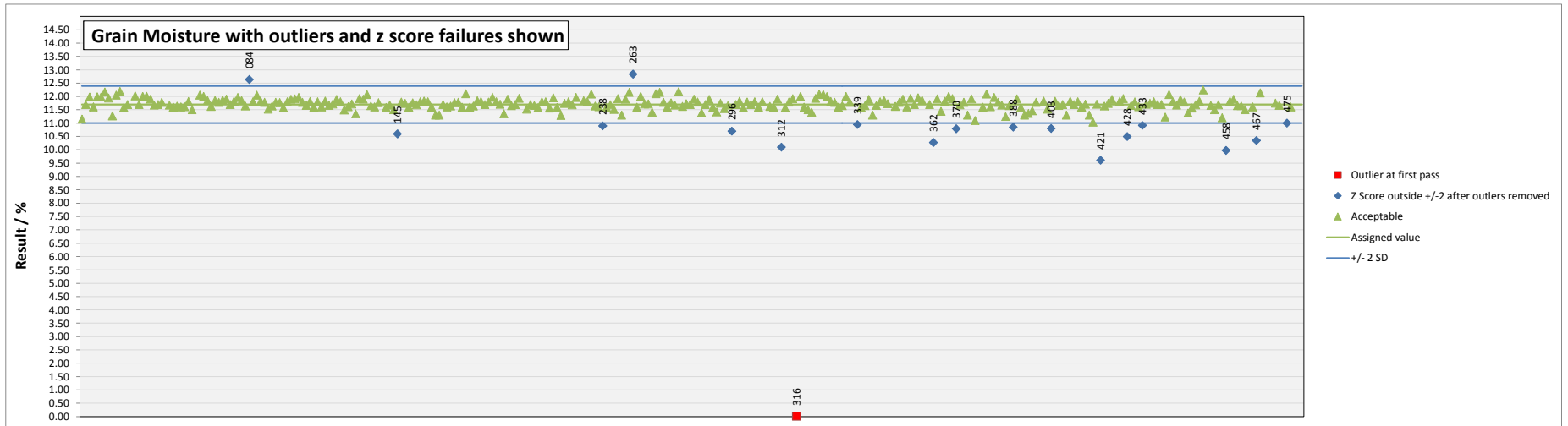




GAFTA Analysts Scheme 2018 - Round 2

Z Score Distribution for Grain Moisture / % AR

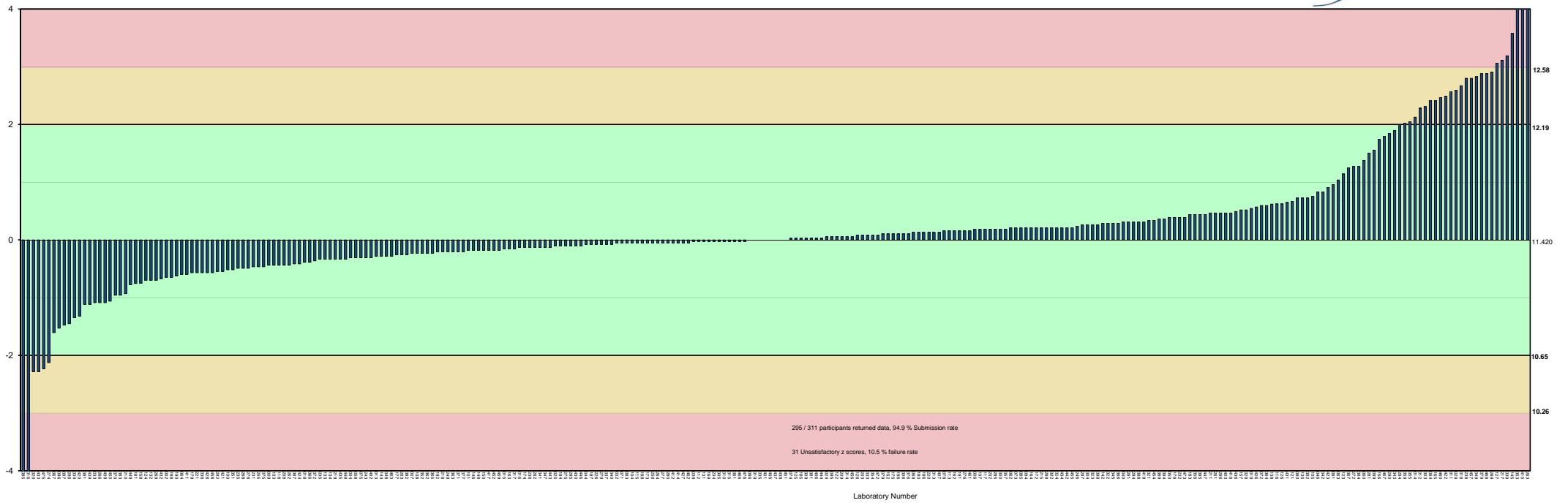


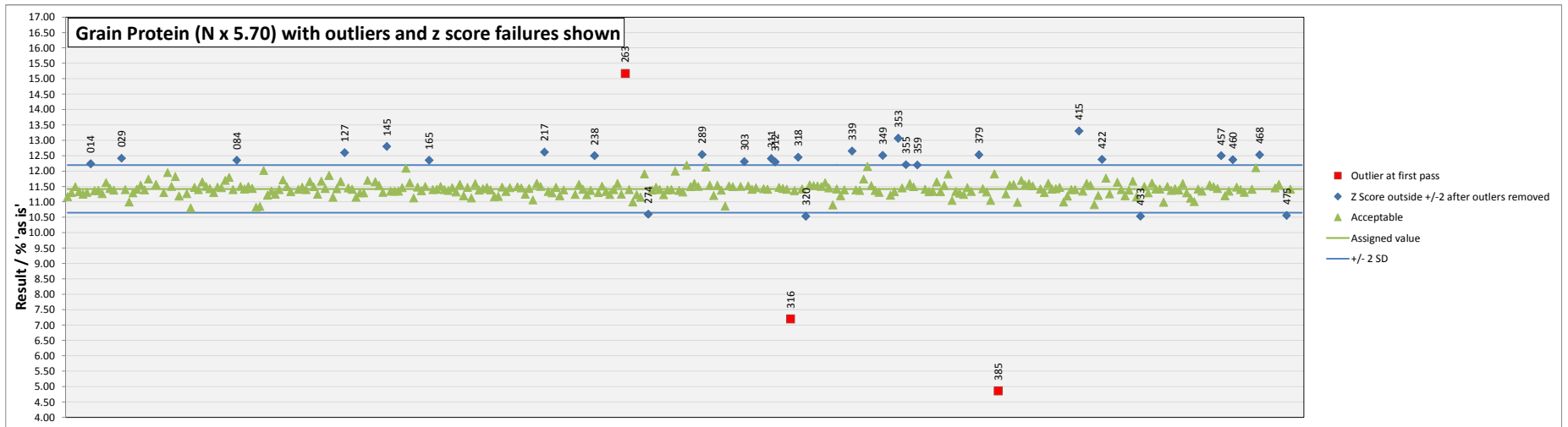


GAFTA Analysts Scheme 2018 - Round 2



Z Score Distribution for Grain Protein / % AR

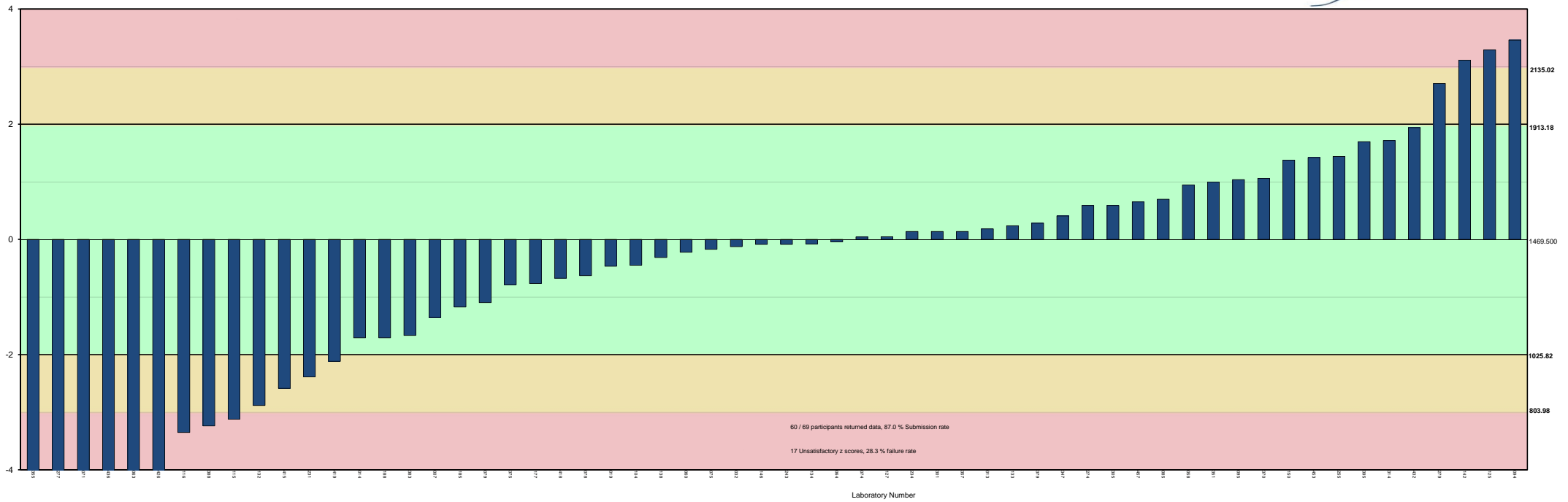


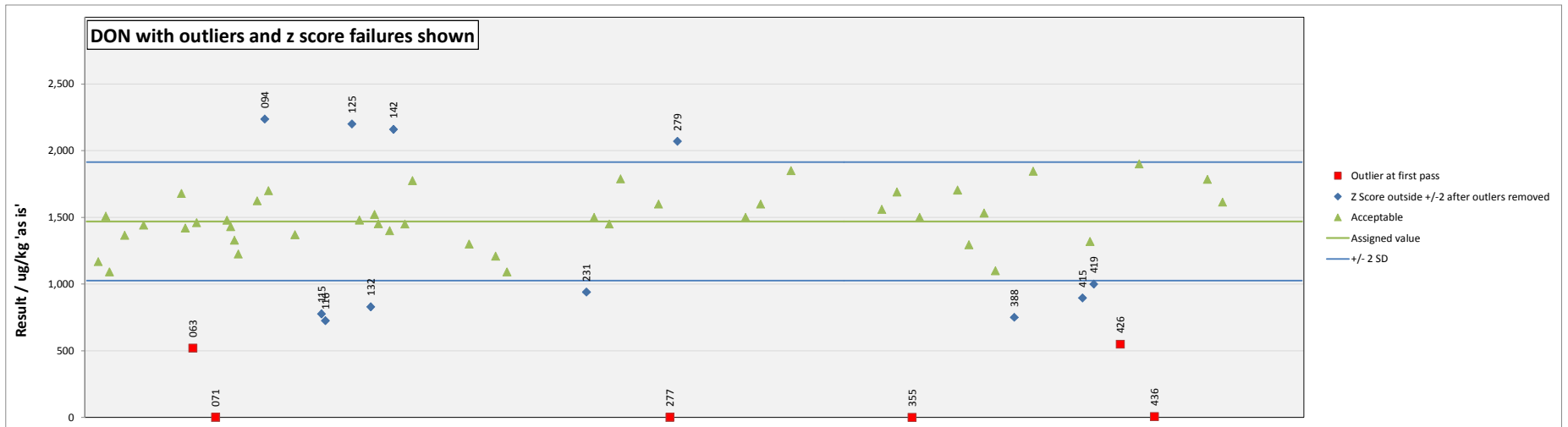




GAFTA Analysts Scheme 2018 - Round 2

Z Score Distribution for Mycotoxin DON / ug/kg AR





DON Results by Analysis Technique

