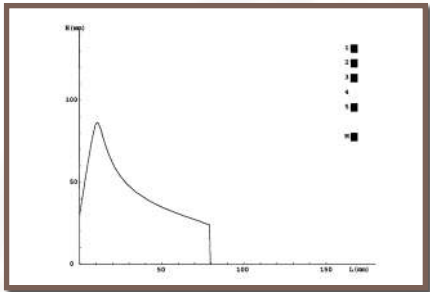
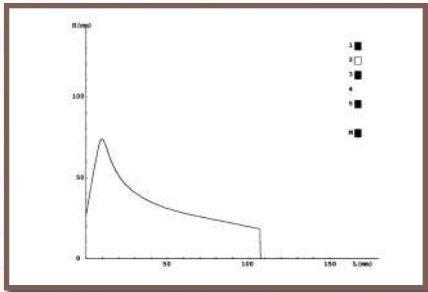
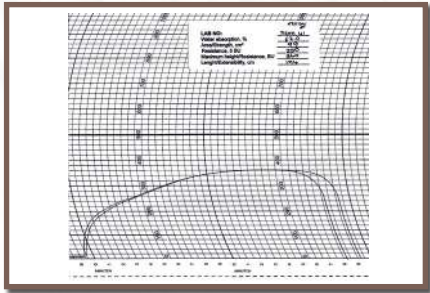
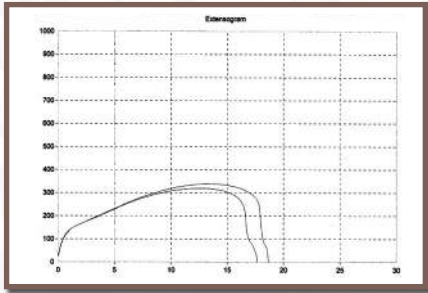
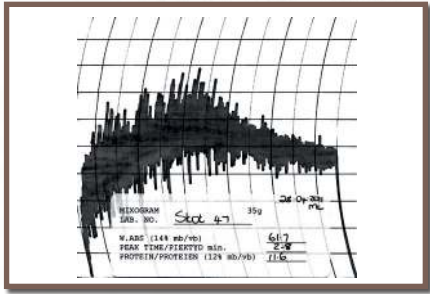
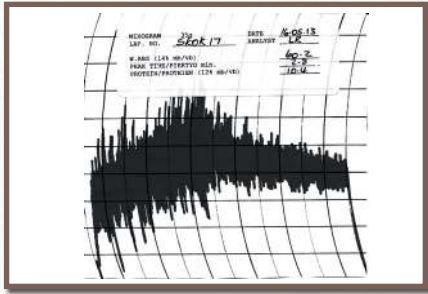


RSA WHEAT CROP QUALITY SUMMARY

RSA Crop Quality 2010/2011 and 2012/2013 Seasons

Country of origin	RSA Crop Average 2010/2011							RSA Crop Average 2012/2013						
Class and Grade bread wheat	B1	B2	B3	B4	UT	COW	Average	B1	B2	B3	B4	UT	COW	Average
No. of samples	164	93	48	23	28	16	372	74	95	69	36	59	4	337
WHEAT GRADING														
Protein (12% mb), %	12.91	11.53	10.69	11.20	12.28	13.31	12.14	12.59	11.55	10.50	10.15	11.30	12.23	11.38
Moisture, %	11.8	11.7	11.6	11.6	11.8	12.2	11.8	11.1	11.1	11.0	11.1	11.2	12.1	11.1
Falling number, sec	385	389	371	359	358	180	372	375	371	361	355	333	280	360
1000 Kernel mass (13% mb), g	39.1	40.0	39.9	40.8	38.5	39.3	39.5	39.5	40.4	41.2	41.4	39.2	36.9	40.2
Hlm (dirty), kg/hl	80.9	80.4	80.6	80.8	78.1	76.6	80.3	81.7	81.7	81.9	81.7	79.5	75.1	81.3
Screenings (<1,8mm), %	1.34	1.61	1.51	2.66	3.48	1.49	1.68	1.14	1.25	1.13	1.64	2.32	3.60	1.46
Gravel, stones, turf and glass, %	0.00	0.00	0.00	0.00	0.00	0.07	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00
Foreign matter, %	0.07	0.08	0.07	0.10	0.18	0.42	0.10	0.08	0.10	0.13	0.14	0.25	0.25	0.13
Other grain & unthreshed ears, %	0.28	0.34	0.33	0.43	0.85	0.26	0.35	0.37	0.42	0.34	0.40	1.04	0.64	0.50
Heat damaged kernels, %	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.04	0.02	0.02	0.03	0.02	0.00	0.02
Immature kernels, %	0.06	0.02	0.02	0.02	0.06	0.10	0.04	0.20	0.15	0.11	0.09	0.25	0.12	0.16
Insect damaged kernels, %	0.24	0.28	0.29	0.27	0.35	0.28	0.27	0.24	0.32	0.27	0.31	0.68	0.31	0.36
Heavily frost damaged kernels, %	0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sprouted kernels, %	0.04	0.03	0.03	0.06	0.15	1.43	0.11	0.32	0.16	0.07	0.09	0.42	1.96	0.24
Total damaged kernels, %	0.34	0.33	0.35	0.35	0.56	1.83	0.42	0.80	0.65	0.47	0.53	1.38	2.39	0.78
Combined deviations, %	2.03	2.36	2.26	3.55	5.07	3.99	2.55	2.38	2.43	2.08	2.72	4.91	6.88	2.86
Field fungi, %	0.18	0.12	0.10	0.14	0.29	1.12	0.20	0.49	0.40	0.35	0.28	0.45	1.69	0.42
Storage fungi, %	0.02	0.01	0.01	0.02	0.03	0.14	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Ergot, %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Noxious seeds (<i>Crotalaria spp.</i> , etc.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Noxious seeds (<i>Agronome mexicana</i> , etc.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Live insects	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Undesirable odour	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	B1	B2	B3	B4	UT	COW	Average	B1	B2	B3	B4	UT	COW	Average
No. of samples	29	24	17	11	10	8	99	22	17	13	11	7	-	70
BÜHLER EXTRACTION, %	75.1	75.1	75.0	74.7	74.4	74.2	74.9	73.5	73.5	73.1	72.7	72.1	-	73.2
FLOUR														
Colour, KJ	-2.0	-2.1	-2.0	-1.9	-1.5	0.4	-1.8	-2.8	-2.8	-3.0	-2.8	-2.8	-	-2.9
Protein (12% mb), %	12.0	10.5	9.7	9.8	11.5	12.1	11.0	11.7	10.8	9.7	9.6	10.9	-	10.7
Wet Gluten (14% mb), %	32.7	28.4	25.7	28.0	31.4	31.1	29.7	31.7	29.4	26.4	25.4	30.0	-	29.0
Dry Gluten (14% mb), %	11.6	9.9	9.0	9.6	11.1	11.1	10.4	11.0	10.2	9.0	8.8	10.3	-	10.0
100g BAKING TEST														
Baking water absorption, %	62.3	60.5	59.6	59.9	61.8	62.4	61.1	61.3	60.4	59.3	59.2	60.4	-	60.3
Loaf volume, cm ³	882	824	766	789	846	853	832	930	900	828	822	916	-	886
Evaluation	2	1	1	1	2	2	1	0	0	0	0	0	-	0
FARINOGRAM														
Water absorption, %	64.2	62.7	61.7	62.3	63.8	64.0	63.2	61.3	60.6	60.5	60.3	61.3	-	60.8
Development time, min	7.0	5.3	5.0	4.0	5.2	4.7	5.5	6.4	5.0	4.1	4.0	4.9	-	5.1
Stability, mm	9.1	7.3	7.5	6.0	8.1	7.6	7.8	9.7	7.4	7.0	7.3	7.3	-	7.9
Mixing tolerance index, BU	33	39	38	43	37	40	37	34	42	38	35	36	-	37

RSA Crop Quality of 2010/2011 and 2012/2013 Seasons

Country of origin	RSA Crop Average 2010/2011							RSA Crop Average 2012/2013						
Class and Grade bread wheat	B1	B2	B3	B4	UT	COW	Average	B1	B2	B3	B4	UT	COW	Average
No. of samples	29	24	17	11	10	8	99	22	17	13	11	7	-	70
ALVEOGRAM														
Strength (S), cm ²	43.1	32.6	30.5	29.2	39.5	39.4	36.2	43.1	35.1	32.6	31.8	36.5	-	36.7
Stability (P), mm	98	91	92	91	98	102	95	86	81	90	91	86	-	86
Distensibility (L), mm	94	78	69	70	87	78	81	120	109	90	84	104	-	105
P/L	1.08	1.21	1.44	1.55	1.28	1.57	1.29	0.77	0.80	1.23	1.34	0.89	-	0.96
														
EXTENSOGRAM														
Strength, cm ²	110	93	85	80	101	109	97	102	82	72	70	85	-	84
Max. height, BU	376	357	358	323	371	378	362	365	313	299	308	320	-	325
Extensibility, mm	205	181	166	170	193	203	187	204	189	171	159	190	-	185
														
MIXOGRAM														
Peak time, min	2.8	2.6	2.8	2.6	2.8	3.2	2.8	2.9	2.6	2.9	3.0	2.7	-	2.8
Absorption, %	62.2	60.4	59.6	59.8	61.7	62.3	61.0	61.8	60.7	59.5	59.5	60.9	-	60.6
														
MYCOTOXINS														
	UPLC-MS/MS							UPLC-MS/MS						
Afla G ₁ (µg/kg)	ND							ND						
Afla B ₁ (µg/kg)	ND							ND						
Afla G ₂ (µg/kg)	ND							ND						
Afla B ₂ (µg/kg)	ND							ND						
Fum B ₁ (µg/kg)	ND							ND						
Fum B ₂ (µg/kg)	ND							ND						
Deoxynivalenol (µg/kg) [max. value]	ND							<LOQ [380]						
Ochratoxin A (µg/kg)	ND							ND						
Zearalenone (µg/kg)	ND							ND						
T-2 Toxin (µg/kg)	ND							ND						
No. of samples	30							40						