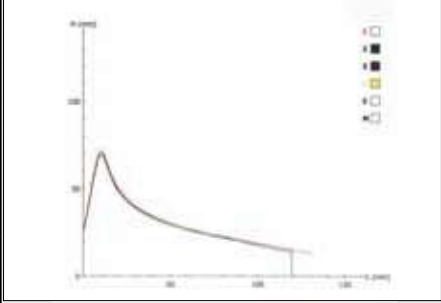
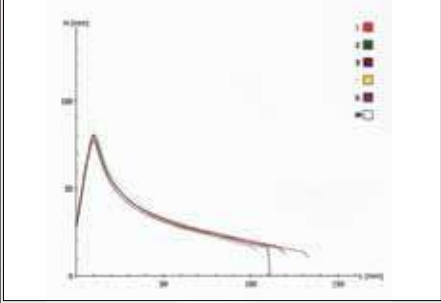
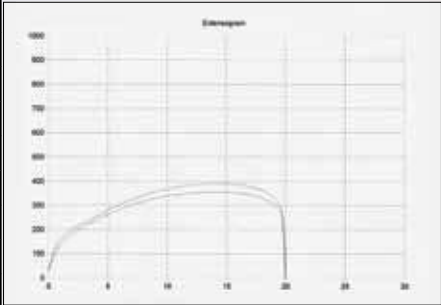
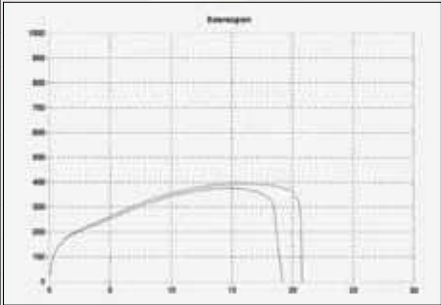
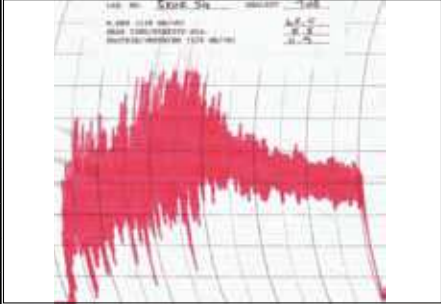
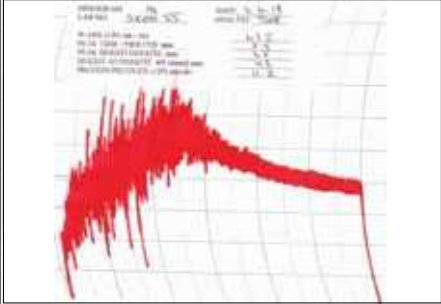


RSA WHEAT CROP QUALITY SUMMARY

RSA Crop Quality 2015/2016 and 2017/2018 Seasons

Country of origin	RSA Crop Average 2015/2016							RSA Crop Average 2017/2018						
Class and Grade bread wheat	B1	B2	B3	B4	UT	COW	Average	B1	B2	B3	B4	UT	COW	Average
No. of samples	124	56	18	11	39	4	252	142	77	22	15	42	6	304
WHEAT GRADING														
Protein (12% mb), %	13.3	11.7	11.2	13.3	13.0	14.9	12.8	13.1	12.0	11.0	11.9	13.0	13.3	12.6
Moisture, %	10.3	10.8	10.9	10.6	10.6	10.4	10.5	10.0	10.1	10.0	9.5	10.3	10.2	10.0
Falling number, sec	401	391	367	405	383	375	393	379	368	367	380	360	301	371
1000 Kernel mass (13% mb), g	36.3	39.4	39.3	34.6	34.9	30.6	36.8	36.9	39.4	40.9	37.0	36.4	34.2	37.7
Hlm (dirty), kg/hl	82.3	81.6	80.2	79.3	78.6	73.8	81.1	80.9	81.7	81.6	81.3	78.4	75.8	80.7
Screenings (<1.8 mm sieve), %	1.33	1.36	1.28	2.73	3.05	4.47	1.71	1.31	1.21	0.98	1.98	2.61	3.24	1.51
Gravel, stones, turf and glass, %	0.00	0.01	0.01	0.00	0.01	0.20	0.01	0.01	0.01	0.02	0.00	0.01	0.07	0.01
Foreign matter, %	0.09	0.11	0.13	0.18	0.30	0.58	0.14	0.11	0.13	0.10	0.10	0.29	0.39	0.14
Other grain & unthreshed ears, %	0.41	0.41	0.43	0.47	1.36	2.16	0.59	0.35	0.38	0.28	0.42	0.94	0.86	0.45
Heat damaged kernels, %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.00
Immature kernels, %	0.08	0.06	0.03	0.10	0.04	0.12	0.06	0.05	0.04	0.02	0.01	0.11	0.30	0.06
Insect damaged kernels, %	0.34	0.43	0.56	0.37	0.78	2.16	0.47	0.59	0.54	0.60	0.55	1.20	3.44	0.72
Heavily frost damaged kernels, %	0.00	0.00	0.05	0.00	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sprouted kernels, %	0.02	0.01	0.00	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.00	0.05	1.93	0.06
Total damaged kernels, %	0.44	0.51	0.59	0.49	0.83	2.30	0.56	0.66	0.61	0.65	0.56	1.36	5.73	0.84
Combined deviations, %	2.26	2.38	2.43	3.87	5.54	9.51	2.99	2.43	2.32	2.01	3.06	5.20	10.22	2.94
Field fungi, %	0.09	0.09	0.12	0.28	0.06	0.06	0.10	0.10	0.08	0.07	0.11	0.13	1.23	0.12
Storage fungi, %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.08	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
Poisonous seeds (<i>Crotalaria spp.</i> , etc.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Poisonous seeds (<i>Argemone 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	25	19	9	8	9	-	70	25	19	9	7	8	2	70
Bühler Extraction, %	73.7	73.8	73.2	73.0	72.4	-	73.4	73.2	73.6	73.6	72.8	71.6	71.2	73.1
FLOUR														
Colour, KJ (wet)	-3.6	-3.6	-3.3	-3.5	-3.4	-	-3.5	-4.1	-4.2	-4.2	-4.3	-3.9	-3.5	-4.1
Colour, Konica Minolta CM5 (dry)														
L*	93.79	93.80	93.68	93.76	93.85	-	93.78	93.68	93.83	93.85	93.95	93.77	93.59	93.78
a*	0.49	0.47	0.42	0.47	0.47	-	0.47	0.44	0.44	0.45	0.38	0.41	0.31	0.43
b*	9.73	9.66	9.83	9.74	9.90	-	9.75	9.69	9.79	9.99	9.84	10.25	9.78	9.84
Protein (12% mb), %	12.4	11.2	10.9	11.9	12.0	-	11.8	12.0	11.1	10.2	10.0	11.7	11.9	11.3
Wet Gluten (14% mb), %	33.8	30.1	29.3	32.2	32.4	-	31.9	32.7	30.6	27.5	26.7	31.7	31.6	30.7
Dry Gluten (14% mb), %	11.8	10.4	9.7	11.2	11.1	-	11.0	11.1	10.3	9.2	9.0	10.8	10.9	10.4
Gluten Index	95	95	95	95	94	-	95	93	93	94	94	92	90	93
100g BAKING TEST														
Baking water absorption, %	62.5	61.1	60.7	62.1	62.3	-	61.8	62.2	61.1	60.2	60.2	61.9	62.3	61.4
Loaf volume, cm ³	1097	1012	985	1029	1060	-	1047	1145	1104	1013	997	1109	1083	1096
Evaluation	0	0	0	1	0	-	0	0	0	0	0	0	0	0
FARINOGRAM														
Water absorption (14% mb), %	61.4	60.8	59.6	60.6	60.5	-	60.8	60.9	60.1	59.5	58.8	60.9	60.4	60.3
Development time, min	6.2	5.3	5.7	5.8	5.9	-	5.8	6.3	5.2	4.3	4.7	5.4	5.2	5.5
Stability, mm	8.4	7.2	8.1	8.1	8.5	-	8.0	9.0	7.1	7.2	7.8	8.8	7.2	8.0
Mixing tolerance index, BU	37	39	38	39	36	-	38	37	45	43	43	35	42	40

RSA Crop Quality of 2015/2016 and 2017/2018 Seasons

Country of origin	RSA Crop Average 2015/2016							RSA Crop Average 2017/2018						
Class and Grade bread wheat	B1	B2	B3	B4	UT	COW	Average	B1	B2	B3	B4	UT	COW	Average
No. of samples	25	19	9	8	9	-	70	25	19	9	7	8	2	70
ALVEOGRAM														
Strength (S), cm ²	41.5	35.6	33.6	39.8	38.1	-	38.3	44.6	36.1	34.0	34.6	40.6	36.1	39.2
Stability (P), mm	83	83	78	78	79	-	81	85	79	86	78	86	79	83
Distensibility (L), mm	120	104	108	127	117	-	115	122	113	102	106	119	123	115
P/L	0.72	0.82	0.81	0.65	0.71	-	0.75	0.72	0.75	1.22	0.81	0.80	0.69	0.81
														
EXTENSOGRAM														
Strength, cm ²	114	94	100	111	105	-	105	121	100	89	89	109	95	106
Max. height, BU	395	357	365	367	359	-	373	421	365	352	347	373	328	382
Extensibility, mm	207	186	187	207	204	-	198	209	197	180	178	206	200	198
														
MIXOGRAM														
Peak time, min	2.5	2.6	2.7	2.5	2.6	-	2.6	62.2	61.1	60.2	60.2	61.9	62.3	61.4
Water absorption (14% mb), %	62.8	61.2	61.0	62.4	62.3	-	62.0	2.8	2.6	2.7	2.7	2.4	2.5	2.6
														
MYCOTOXINS														
Aflatoxin B ₁ (µg/kg)	ND							ND						
Aflatoxin B ₂ (µg/kg)	ND							ND						
Aflatoxin G ₁ (µg/kg)	ND							ND						
Aflatoxin G ₂ (µg/kg)	ND							ND						
Fumonisin B ₁ (µg/kg)	ND							ND						
Fumonisin B ₂ (µg/kg)	ND							ND						
Fumonisin B ₃ (µg/kg)	ND							ND						
Deoxynivalenol (µg/kg) [max. value]	<100 [593]							<100 [570]						
Ochratoxin A (µg/kg)	ND							ND						
Zearalenone (µg/kg)	ND							ND						
T-2 Toxin (µg/kg)	ND							ND						
No. of samples	40							40						