

RSA WHEAT CROP QUALITY SUMMARY

RSA Crop Quality 2017/2018 and 2018/2019 Seasons

Country of origin	RSA Crop Average 2017/2018							RSA Crop Average 2018/2019						
Class and Grade bread wheat	B1	B2	B3	B4	UT	COW	Average	B1	B2	B3	B4	UT	COW	Average
No. of samples	142	77	22	15	42	6	304	153	88	29	14	48	5	337
WHEAT GRADING														
Protein (12% mb), %	13.1	12.0	11.0	11.9	13.0	13.3	12.6	12.8	11.6	10.5	10.7	12.0	11.5	12.1
Moisture, %	10.0	10.1	10.0	9.5	10.3	10.2	10.0	9.3	9.3	9.2	9.6	9.0	9.7	9.3
Falling number, sec	379	368	367	380	360	301	371	402	401	378	354	400	359	397
1000 Kernel mass (13% mb), g	36.9	39.4	40.9	37.0	36.4	34.2	37.7	38.9	39.7	39.9	37.0	39.0	42.9	39.2
Hlm (dirty), kg/hl	80.9	81.7	81.6	81.3	78.4	75.8	80.7	81.7	81.7	82.0	79.9	79.5	82.3	81.3
Screenings (<1.8 mm sieve), %	1.31	1.21	0.98	1.98	2.61	3.24	1.51	1.30	1.23	1.18	2.44	2.58	0.69	1.49
Gravel, stones, turf and glass, %	0.01	0.01	0.02	0.00	0.01	0.07	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Foreign matter, %	0.11	0.13	0.10	0.10	0.29	0.39	0.14	0.14	0.13	0.11	0.14	0.27	0.12	0.15
Other grain & unthreshed ears, %	0.35	0.38	0.28	0.42	0.94	0.86	0.45	0.31	0.36	0.31	0.42	1.03	0.09	0.43
Heat damaged kernels, %	0.00	0.00	0.00	0.00	0.01	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00
Immature kernels, %	0.05	0.04	0.02	0.01	0.11	0.30	0.06	0.09	0.07	0.06	0.09	0.04	0.18	0.08
Insect damaged kernels, %	0.59	0.54	0.60	0.55	1.20	3.44	0.72	0.49	0.47	0.53	0.49	0.81	1.50	0.55
Heavily frost damaged kernels, %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.06	0.00	0.00	0.50	8.88	0.22
Sprouted kernels, %	0.02	0.02	0.02	0.00	0.05	1.93	0.06	0.02	0.02	0.01	0.00	0.10	0.16	0.03
Total damaged kernels, %	0.66	0.61	0.65	0.56	1.36	5.73	0.84	0.60	0.56	0.60	0.58	0.95	1.94	0.66
Combined deviations, %	2.43	2.32	2.01	3.06	5.20	10.22	2.94	2.35	2.29	2.20	3.58	4.83	2.85	2.73
Field fungi, %	0.10	0.08	0.07	0.11	0.13	1.23	0.12	0.12	0.14	0.10	0.12	0.12	0.08	0.12
Storage fungi, %	0.00	0.00	0.00	0.00	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	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
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	7	8	2	70	28	21	11	7	3	-	70
Bühler Extraction, %	73.2	73.6	73.6	72.8	71.6	71.2	73.1	71.5	71.7	71.5	69.2	70.7	-	71.3
FLOUR														
Colour, KJ (wet)	-4.1	-4.2	-4.2	-4.3	-3.9	-3.5	-4.1	-4.5	-4.6	-4.7	-4.4	-4.5	-	-4.5
Colour, Konica Minolta CM5 (dry)														
L*	93.68	93.83	93.85	93.95	93.77	93.59	93.78	93.74	93.80	93.89	93.61	93.99	-	93.78
a*	0.44	0.44	0.45	0.38	0.41	0.31	0.43	0.45	0.45	0.44	0.48	0.41	-	0.45
b*	9.69	9.79	9.99	9.84	10.25	9.78	9.84	10.04	10.05	10.23	10.65	9.82	-	10.12
Ash (db), %	0.60	0.61	0.61	0.58	0.60	0.65	0.60	0.60	0.60	0.61	0.61	0.57	-	0.60
Protein (12% mb), %	12.0	11.1	10.2	10.0	11.7	11.9	11.3	11.8	10.6	9.6	10.4	11.3	-	10.9
Wet Gluten (14% mb), %	32.7	30.6	27.5	26.7	31.7	31.6	30.7	32.7	28.9	25.6	30.1	31.3	-	30.1
Dry Gluten (14% mb), %	11.1	10.3	9.2	9.0	10.8	10.9	10.4	11.0	9.7	8.5	10.1	10.6	-	10.1
Gluten Index	93	93	94	94	92	90	93	92	95	96	96	93	-	94
100g BAKING TEST														
Baking water absorption, %	62.2	61.1	60.2	60.2	61.9	62.3	61.4	61.9	60.5	59.4	60.5	61.3	-	60.9
Loaf volume, cm ³	1145	1104	1013	997	1109	1083	1096	1088	1014	936	994	1085	-	1033
Evaluation (see page 79)	0	0	0	0	0	0	0	0	0	0	0	0	-	0
FARINOGRAM														
Water absorption (14% mb), %	60.9	60.1	59.5	58.8	60.9	60.4	60.3	61.6	60.4	58.9	58.6	61.1	-	60.5
Development time, min	6.3	5.2	4.3	4.7	5.4	5.2	5.5	5.4	4.9	4.5	4.5	4.5	-	5.0
Stability, mm	9.0	7.1	7.2	7.8	8.8	7.2	8.0	7.4	6.8	6.4	7.1	6.8	-	7.0
Mixing tolerance index, BU	37	45	43	43	35	42	40	40	41	43	38	40	-	41
	120							113						

RSA Crop Quality of 2017/2018 and 2018/2019 Seasons

Country of origin	RSA Crop Average 2017/2018							RSA Crop Average 2018/2019						
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	7	8	2	70	28	21	11	7	3	-	70
ALVEOGRAM														
Strength (S), cm ²	44.6	36.1	34.0	34.6	40.6	36.1	39.2	38.5	33.2	29.0	31.2	36.5	-	34.6
Stability (P), mm	85	79	86	78	86	79	83	84	82	76	81	80	-	82
Distensibility (L), mm	122	113	102	106	119	123	115	114	100	95	87	118	-	104
P/L	0.72	0.75	1.22	0.81	0.80	0.69	0.81	0.75	0.85	0.83	0.96	0.68	-	0.81
121							115							
EXTENSOGRAM														
Strength, cm ²	121	100	89	89	109	95	106	101	90	76	85	96	-	92
Max. height, BU	421	365	352	347	373	328	382	364	351	323	344	348	-	350
Extensibility, mm	209	197	180	178	206	200	198	204	187	172	177	201	-	191
122							117							
MIXOGRAM														
Peak time, min	2.8	2.6	2.7	2.7	2.4	2.5	2.6	2.5	2.6	2.7	3.0	2.3	-	2.6
Water absorption (14% mb), %	62.2	61.1	60.2	60.2	61.9	62.3	61.4	61.9	60.5	59.4	60.5	61.3	-	60.9
123							119							
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 [570]							<100 [361]						
Ochratoxin A (µg/kg)	ND							ND						
Zearalenone (µg/kg)	ND							ND						
T-2 Toxin (µg/kg)	ND							ND						
No. of samples	40							40						