

RSA WHEAT CROP QUALITY SUMMARY

RSA Crop Quality 2007/2008 and 2009/2010 Seasons

Country of origin	RSA Crop Average 2007/2008							RSA Crop Average 2009/2010						
Class and Grade bread wheat	B1	B2	B3	B4	UT	COW	Average	B1	B2	B3	B4	UT	COW	Average
No. of samples	64	137	131	70	24	54	480	159	138	79	30	16	58	480
WHEAT														
GRADING														
Protein (12% mb), %	12.48	11.42	10.59	9.58	11.66	10.99	11.03	12.84	11.50	10.62	9.64	11.29	11.51	11.68
Moisture, %	11.6	11.4	12.0	11.1	11.8	11.4	11.6	11.5	11.3	11.3	10.8	11.0	11.0	11.3
Falling number, sec	369	368	359	351	323	364	360	382	375	359	339	240	365	367
1000 Kernel mass (13% mb), g	38.9	38.7	39.1	39.7	38.1	36.4	38.7	38.7	39.5	40.4	40.2	36.6	38.1	39.2
Hlm (dirty), kg/hl	78.9	78.7	78.0	78.5	75.5	76.2	78.1	80.8	80.0	79.5	79.7	75.2	79.0	79.9
Screenings (<1,8mm), %	1.42	1.36	1.33	1.16	3.02	3.01	1.60	1.36	1.30	1.47	1.44	3.36	3.03	1.63
Gravel, stones, turf and glass, %	0.01	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Foreign matter, %	0.05	0.05	0.05	0.07	0.19	0.08	0.06	0.05	0.05	0.09	0.09	0.12	0.11	0.07
Other grain & unthreshed ears, %	0.23	0.25	0.30	0.26	0.32	0.54	0.30	0.25	0.26	0.30	0.35	0.64	0.65	0.33
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	0.05	0.00	0.00
Immature kernels, %	0.12	0.11	0.06	0.06	0.14	0.16	0.10	0.07	0.05	0.04	0.03	0.01	0.06	0.05
Insect damaged kernels, %	0.24	0.17	0.15	0.16	2.08	0.75	0.33	0.19	0.26	0.29	0.27	1.10	0.52	0.30
Heavily frost damaged kernels, %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.01
Sprouted kernels, %	0.23	0.19	0.15	0.14	1.08	0.17	0.22	0.09	0.11	0.16	0.14	2.73	0.36	0.23
Total damaged kernels, %	0.59	0.47	0.36	0.35	3.30	1.08	0.65	0.36	0.43	0.50	0.44	3.96	0.96	0.60
Combined deviations, %	2.30	2.13	2.04	1.85	6.85	4.71	2.61	2.02	2.04	2.34	2.32	8.07	4.76	2.63
Field fungi, %	0.14	0.10	0.09	0.06	0.14	0.18	0.11	0.19	0.19	0.21	0.15	0.54	0.16	0.20
Storage fungi, %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.03	0.01	0.01
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 (Crotolaria sp, Datura sp..)	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Noxious seeds (Argemone mexicana..)	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	23	26	18	14	6	13	100	26	28	20	10	5	11	100
BÜHLER EXTRACTION, %	75.7	76.0	75.7	74.9	75.4	75.1	75.6	74.8	75.1	74.8	73.8	74.1	74.9	74.7
FLOUR														
Colour, KJ	-1.7	-1.9	-2.1	-2.4	-0.8	-1.7	-1.9	-2.2	-2.3	-2.3	-2.3	-1.7	-2.2	-2.2
100g BAKING TEST														
Baking water absorption, %	61.5	60.3	59.4	57.7	61.2	59.6	60.0	61.5	60.3	59.3	58.2	59.5	60.4	60.2
Loaf volume, cm ³	892	857	802	704	873	800	827	902	853	803	727	868	847	843
Evaluation	1	1	1	2	1	1	1	1	0	0	0	0	0	0
FARINOGRAM														
Water absorption, %	62.3	61.0	60.2	59.3	61.0	59.8	60.8	62.3	61.3	60.5	59.3	58.3	60.6	61.0
Development time, min	4.8	3.8	2.9	2.0	4.4	3.0	3.5	4.8	3.4	2.9	2.0	2.7	3.7	3.5
Stability, mm	9.0	7.6	6.6	4.5	7.9	6.4	7.2	8.4	6.8	5.7	3.8	4.9	6.9	6.6
Mixing tolerance index, BU	37	41	44	58	43	46	44	39	44	52	71	71	48	49

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No. of samples	23	26	18	14	6	13	100	26	28	20	10	5	11	100
ALVEOGRAM														
Strength (S) , cm ²	47.9	42.8	39.8	33.0	46.9	39.5	41.9	42.4	36.5	32.7	25.0	26.8	35.4	35.5
Stability (P), mm	92	86	89	96	83	86	89	93	90	90	87	61	83	89
Distensibility (L), mm	118	114	101	75	127	101	106	97	86	75	58	101	90	85
P/L	0.81	0.78	0.98	1.54	0.67	0.93	0.94	1.03	1.13	1.31	1.80	0.61	0.97	1.17
EXTENSOGRAM														
Strength, cm ²	106	98	93	77	114	97	97	96	85	74	61	71	87	83
Max. height, BU	377	371	384	371	392	388	378	355	344	327	304	295	345	337
Extensibility, mm	195	184	172	142	200	170	178	187	174	158	139	171	173	170
MIXOGRAM														
Peak time, min	2.6	2.6	2.9	3.0	2.8	2.8	2.8	2.6	2.6	2.7	2.8	2.8	2.5	2.6
Absorption, %	62.4	61.0	60.0	58.7	61.8	60.2	60.8	61.8	60.4	59.4	58.5	60.3	60.6	60.4
MYCOTOXINS														
Aflatoxin, ppb [max.value]	0.33 [5.00]							1.00 [4.00]						
Deoxynivalenol, ppm [max. value]	1.36 [2.70]							0.05 [0.48]						
Ochratoxin A, ppb [max. value]	0.33 [2.80]							0.17 [1.00]						
No. of samples	30							30						