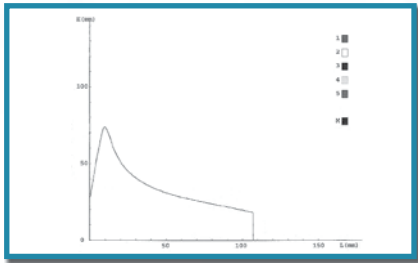
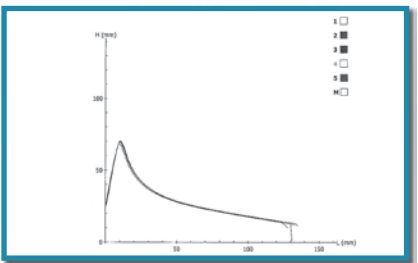
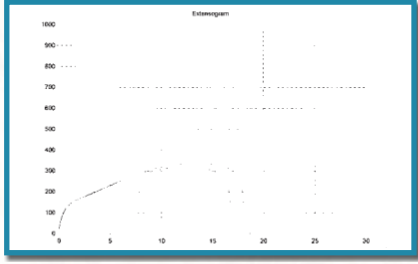
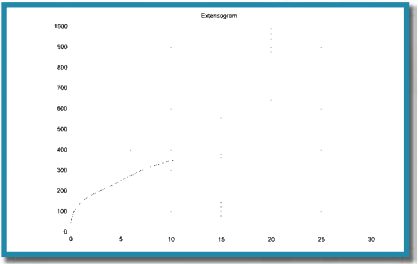
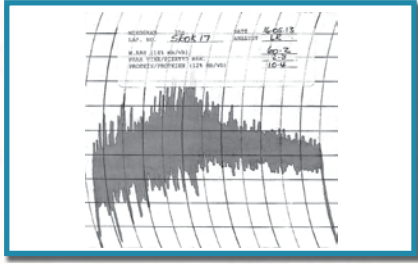
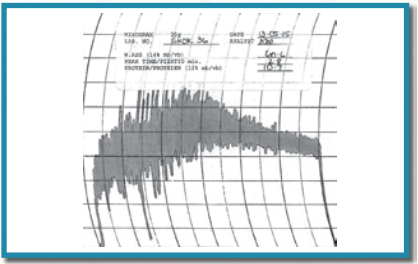


# RSA WHEAT CROP QUALITY SUMMARY

## RSA Crop Quality 2012/2013 and 2014/2015 Seasons

Country of origin	RSA Crop Average 2012/2013							RSA Crop Average 2014/2015						
Class and Grade bread wheat	B1	B2	B3	B4	UT	COW	Average	B1	B2	B3	B4	UT	COW	Average
<b>No. of samples</b>	<b>74</b>	<b>95</b>	<b>69</b>	<b>36</b>	<b>59</b>	<b>4</b>	<b>337</b>	<b>105</b>	<b>59</b>	<b>42</b>	<b>17</b>	<b>89</b>	<b>25</b>	<b>337</b>
<b>WHEAT GRADING</b>														
Protein (12% mb), %	12.59	11.55	10.50	10.15	11.30	12.23	11.38	12.91	11.53	10.78	9.68	11.51	11.35	11.75
Moisture, %	11.1	11.1	11.0	11.1	11.2	12.1	11.1	11.0	11.1	11.1	12.3	11.2	11.3	11.2
Falling number, sec	375	371	361	355	333	280	360	364	369	375	375	369	364	368
1000 Kernel mass (13% mb), g	39.5	40.4	41.2	41.4	39.2	36.9	40.2	38.0	39.6	40.3	41.9	38.2	38.2	38.8
Hlm (dirty), kg/hl	81.7	81.7	81.9	81.7	79.5	75.1	81.3	80.9	80.7	80.6	81.0	79.1	78.6	80.2
Screenings (<1,8mm), %	1.14	1.25	1.13	1.64	2.32	3.60	1.46	1.17	1.26	1.32	1.42	2.19	2.01	1.55
Gravel, stones, turf and glass, %	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Foreign matter, %	0.08	0.10	0.13	0.14	0.25	0.25	0.13	0.09	0.07	0.09	0.07	0.18	0.12	0.11
Other grain & unthreshed ears, %	0.37	0.42	0.34	0.40	1.04	0.64	0.50	0.42	0.44	0.43	0.38	0.98	0.58	0.58
Heat damaged kernels, %	0.04	0.02	0.02	0.03	0.02	0.00	0.02	0.00	0.00	0.01	0.01	0.00	0.01	0.00
Immature kernels, %	0.20	0.15	0.11	0.09	0.25	0.12	0.16	0.13	0.05	0.05	0.04	0.10	0.03	0.09
Insect damaged kernels, %	0.24	0.32	0.27	0.31	0.68	0.31	0.36	0.44	0.71	0.76	0.85	1.71	1.22	0.94
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	0.00	0.00	0.00
Sprouted kernels, %	0.32	0.16	0.07	0.09	0.42	1.96	0.24	0.04	0.04	0.04	0.10	0.10	0.08	0.06
Total damaged kernels, %	0.80	0.65	0.47	0.53	1.38	2.39	0.78	0.62	0.79	0.85	0.99	1.92	1.34	1.09
Combined deviations, %	2.38	2.43	2.08	2.72	4.91	6.88	2.86	2.29	2.57	2.69	2.86	5.27	4.05	3.34
Field fungi, %	0.49	0.40	0.35	0.28	0.45	1.69	0.42	0.23	0.16	0.09	0.06	0.11	1.76	0.27
Storage fungi, %	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00	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 ( <i>Crotalaria spp., etc.</i> )	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Noxious seeds ( <i>Argemone mexicana, etc.</i> )	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	Yes	No
Undesirable odour	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	<b>B1</b>	<b>B2</b>	<b>B3</b>	<b>B4</b>	<b>UT</b>	<b>COW</b>	<b>Average</b>	<b>B1</b>	<b>B2</b>	<b>B3</b>	<b>B4</b>	<b>UT</b>	<b>COW</b>	<b>Average</b>
<b>No. of samples</b>	<b>22</b>	<b>17</b>	<b>13</b>	<b>11</b>	<b>7</b>	<b>-</b>	<b>70</b>	<b>24</b>	<b>15</b>	<b>15</b>	<b>6</b>	<b>9</b>	<b>1</b>	<b>70</b>
<b>BÜHLER EXTRACTION, %</b>	<b>73.5</b>	<b>73.5</b>	<b>73.1</b>	<b>72.7</b>	<b>72.1</b>	<b>-</b>	<b>73.2</b>	<b>73.5</b>	<b>73.6</b>	<b>73.3</b>	<b>73.9</b>	<b>72.8</b>	<b>70.9</b>	<b>73.4</b>
<b>FLOUR</b>														
Colour, KJ (wet)	-2.8	-2.8	-3.0	-2.8	-2.8	-	-2.9	-3.3	-3.3	-3.5	-3.7	-3.2	-2.2	-3.3
Colour, Minolta CM5 (dry)														
L*	93.76	93.82	94.02	83.84	93.88	-	93.85	93.66	93.72	93.93	94.07	93.77	92.98	93.77
a*	0.44	0.42	0.38	0.38	0.43	-	0.41	0.47	0.45	0.41	0.39	0.41	0.56	0.44
b*	9.73	9.91	9.99	10.19	10.00	-	9.92	9.58	9.81	9.87	9.49	9.82	9.78	9.72
Protein (12% mb), %	11.7	10.8	9.7	9.6	10.9	-	10.7	11.9	10.5	9.7	8.9	10.9	10.9	10.7
Wet Gluten (14% mb), %	31.7	29.4	26.4	25.4	30.0	-	29.0	31.8	28.9	25.7	24.1	30.2	27.2	28.9
Dry Gluten (14% mb), %	11.0	10.2	9.0	8.8	10.3	-	10.0	10.8	9.7	8.6	8.3	10.4	9.2	9.8
Gluten Index	84	78	87	83	81	-	83	88	86	88	90	86	94	88
<b>100g BAKING TEST</b>														
Baking water absorption, %	61.3	60.4	59.3	59.2	60.4	-	60.3	61.8	60.3	59.4	58.7	60.7	60.3	60.6
Loaf volume, cm <sup>3</sup>	930	900	828	822	916	-	886	938	875	831	786	917	1132	889
Evaluation	0	0	0	0	0	-	0	1	0	0	0	0	0	0
<b>FARINOGRAM</b>														
Water absorption, %	61.3	60.6	60.5	60.3	61.3	-	60.8	60.6	59.2	58.7	58.0	59.7	58.0	59.5
Development time, min	6.4	5.0	4.1	4.0	4.9	-	5.1	6.8	4.9	3.8	3.8	5.5	4.3	5.3
Stability, mm	9.7	7.4	7.0	7.3	7.3	-	7.9	10.1	6.9	7.6	6.6	8.4	6.7	8.3
Mixing tolerance index, BU	34	42	38	35	36	-	37	30	41	35	39	36	39	35

## RSA Crop Quality of 2012/2013 and 2014/2015 Seasons

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Class and Grade bread wheat	B1	B2	B3	B4	UT	COW	Average	B1	B2	B3	B4	UT	COW	Average
No. of samples	22	17	13	11	7	-	70	24	15	15	6	9	1	70
<b>ALVEOGRAM</b>														
Strength (S), cm <sup>2</sup>	43.1	35.1	32.6	31.8	36.5	-	36.7	46.1	34.2	34.1	28.3	37.6	26.9	38.1
Stability (P), mm	86	81	90	91	86	-	86	77	71	79	72	72	50	75
Distensibility (L), mm	120	109	90	84	104	-	105	148	136	113	103	139	163	133
P/L	0.77	0.80	1.23	1.34	0.89	-	0.96	0.53	0.55	0.75	0.71	0.54	0.31	0.59
														
<b>EXTENSOGRAM</b>														
Strength, cm <sup>2</sup>	102	82	72	70	85	-	84	122	87	85	73	94	74	98
Max. height, BU	365	313	299	308	320	-	325	405	331	351	314	344	238	360
Extensibility, mm	204	189	171	159	190	-	185	218	191	176	166	198	219	196
														
<b>MIXOGRAM</b>														
Peak time, min	2.9	2.6	2.9	3.0	2.7	-	2.8	2.8	2.6	2.8	2.7	2.5	3.1	2.7
Absorption, %	61.8	60.7	59.5	59.5	60.9	-	60.6	62.0	60.4	59.6	58.8	60.8	60.8	60.7
														
<b>MYCOTOXINS</b>														
Afla G <sub>1</sub> (µg/kg)	ND							ND						
Afla B <sub>1</sub> (µg/kg)	ND							ND						
Afla G <sub>2</sub> (µg/kg)	ND							ND						
Afla B <sub>2</sub> (µg/kg)	ND							ND						
Fum B <sub>1</sub> (µg/kg)	ND							ND						
Fum B <sub>2</sub> (µg/kg)	ND							ND						
Fum B <sub>3</sub> (µg/kg)	ND							ND						
Deoxynivalenol (µg/kg) [max. value]	ND [380]							ND [361]						
Ochratoxin A (µg/kg)	ND							ND						
Zearalenone (µg/kg)	ND							ND						
T-2 Toxin (µg/kg)	ND							ND						
<b>No. of samples</b>	<b>40</b>							<b>40</b>						