

South African quality data per production region

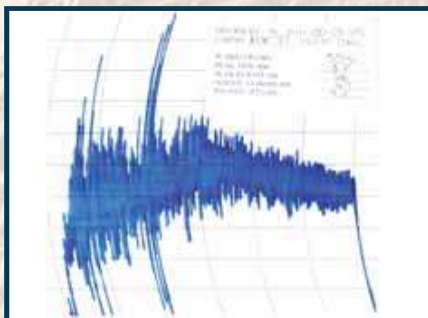
WINTER RAINFALL WHEAT

PRODUCTION REGION	(1)					(2)				
	Namakwaland Region					Swartland Western Region				
WHEAT										
	ave	min	max	stdev		ave	min	max	stdev	
Protein (12% mb), %	11.5	10.2	13.3	1.35		10.9	9.7	12.9	1.01	
Falling number, sec	402	372	417	20.17		374	350	412	18.93	
Moisture, %	11.2	11.1	11.3	0.10		11.3	10.7	11.8	0.39	
1000 Kernel mass (13% mb), g	38.5	35.9	42.0	2.93		35.1	32.7	36.7	1.47	
Hectolitre mass (dirty), kg/hl	78.2	77.4	78.8	0.61		79.3	76.6	81.1	1.26	
Screenings (<1.8 mm sieve), %	3.19	2.56	3.57	0.45		1.59	0.30	3.66	1.27	
Total damaged kernels, %	0.95	0.17	1.95	0.77		0.30	0.09	0.80	0.22	
Combined deviations, %	4.75	2.92	6.42	1.49		2.27	0.70	4.90	1.39	
Number of samples	4					11				
MIXOGRAM (Quadromat Junior)										
	ave	min	max	stdev		ave	min	max	stdev	
Peak time, min	3.0	2.3	3.9	0.67		3.5	2.9	4.4	0.40	
Tail height (6 min), mm	47	43	48	2.38		47	42	52	2.77	
Number of samples	4					11				
COMPOSITE SAMPLES										
CLASS AND GRADE	Super	Grade 1	Grade 2	Grade 3	COW	Super	Grade 1	Grade 2	Grade 3	COW
Bühler Extraction, %	-	-	-	70.9	-	69.4	70.1	71.5	71.3	-
FLOUR										
Protein (12% mb), %	-	-	-	9.0	-	11.7	10.9	10.0	9.0	-
Moisture, %	-	-	-	13.5	-	13.4	13.8	13.5	13.4	-
Ash (db), %	-	-	-	0.60	-	0.65	0.62	0.54	0.55	-
Colour, Konica Minolta CM5 (dry)										
L*	-	-	-	94.32	-	94.03	94.03	94.17	94.20	-
a*	-	-	-	0.41	-	0.45	0.41	0.43	0.43	-
b*	-	-	-	9.63	-	10.05	10.34	9.91	9.83	-
RVA										
Peak Viscosity, cP	-	-	-	2378	-	2471	2366	2501	2520	-
Minimum viscosity (Trough), cP	-	-	-	1780	-	1701	1773	1877	1918	-
Final Viscosity, cP	-	-	-	2756	-	2812	2765	2933	2957	-
Peak Time, min	-	-	-	7.00	-	7.00	7.00	7.00	7.00	-
GLUTEN										
Wet gluten (14% mb), %	-	-	-	22.8	-	30.5	28.0	24.8	21.6	-
Dry gluten (14% mb), %	-	-	-	7.5	-	10.4	9.3	8.3	7.2	-
Gluten Index	-	-	-	97	-	95	95	94	97	-
FARINOGRAM										
Water absorption (14% mb), %	-	-	-	56.7	-	58.9	57.3	55.4	54.8	-
Development time, min	-	-	-	2.0	-	5.1	5.2	4.5	1.6	-
Stability, min	-	-	-	8.1	-	16.3	14.4	14.3	12.3	-
Mixing tolerance index, BU	-	-	-	28	-	20	23	21	14	-
EXTENSOGRAM (45 min pull)										
Area, cm²	-	-	-	86	-	131	108	99	93	-
Maximum height, BU	-	-	-	387	-	479	434	454	450	-
Extensibility, mm	-	-	-	161	-	202	183	161	151	-
ALVEOGRAM										
Strength (S), cm²	-	-	-	32.1		46.2	39.9	36.5	28.4	-
Stability (P), mm	-	-	-	74		75	73	68	67	-
Distensibility (L), mm	-	-	-	104		164	140	143	97	-
Configuration ratio (P/L)	-	-	-	0.71		0.46	0.52	0.48	0.69	-
MIXOGRAM										
Peak time, min	-	-	-	3.1	-	2.9	3.1	3.0	3.3	-
100 g BAKING TEST										
Loaf volume, cm³	-	-	-	938	-	1089	1033	961	932	-

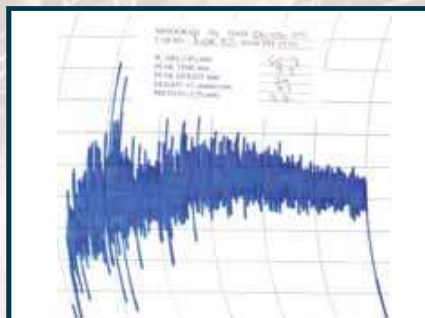
Rheological Graphs Per Production Region

MIXOGRAM

1

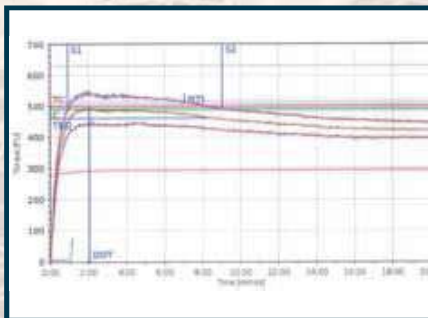


2

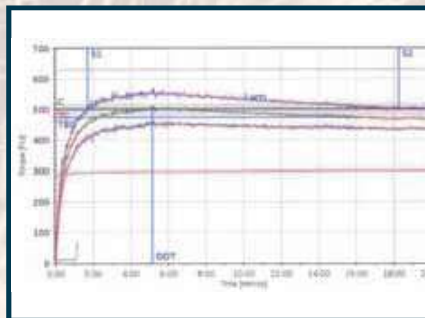


FARINOGRAM

1

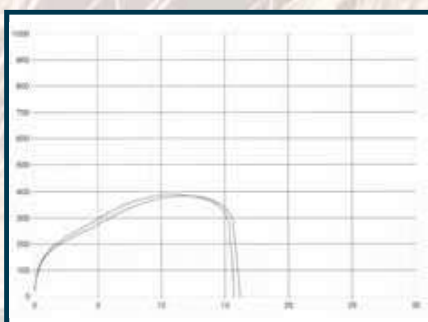


2

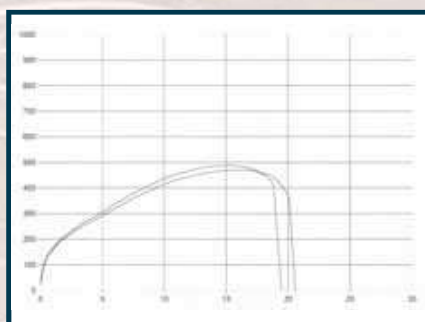


EXTENSOGRAM

1

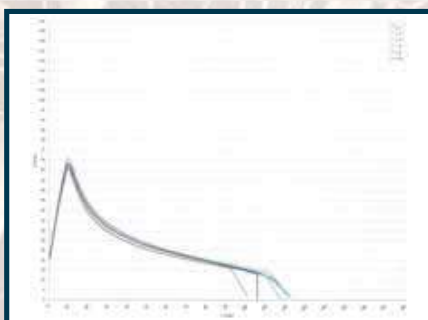


2

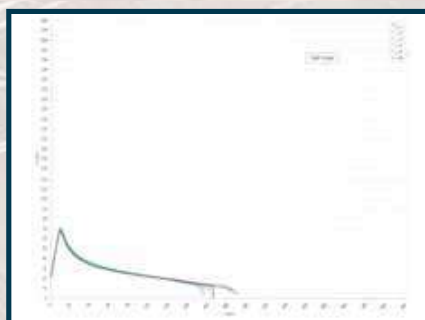


ALVEOGRAM

1



2



South African quality data per production region

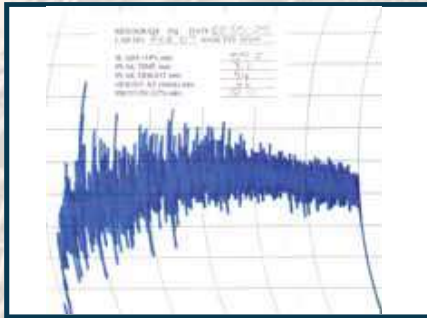
WINTER RAINFALL WHEAT

PRODUCTION REGION	(3)					(4)				
	Swartland Central Region					Swartland Eastern Region				
WHEAT										
	ave	min	max	stdev		ave	min	max	stdev	
Protein (12% mb), %	10.8	8.1	14.9	1.12		10.7	8.6	13.5	1.28	
Falling number, sec	396	273	542	47.62		403	344	510	50.03	
Moisture, %	10.5	9.4	11.7	0.48		10.3	8.9	10.7	0.42	
1000 Kernel mass (13% mb), g	36.2	32.6	39.4	1.64		35.3	32.9	37.6	1.28	
Hectolitre mass (dirty), kg/hl	79.7	74.9	81.5	1.22		79.0	76.7	80.9	1.25	
Screenings (<1.8 mm sieve), %	2.25	0.70	5.19	0.73		2.62	0.17	14.12	3.35	
Total damaged kernels, %	0.28	0.00	1.18	0.23		1.56	0.10	8.40	2.48	
Combined deviations, %	3.79	1.72	6.26	1.14		5.52	1.41	15.01	3.28	
Number of samples	62					16				
MIXOGRAM (Quadromat Junior)										
	ave	min	max	stdev		ave	min	max	stdev	
Peak time, min	3.2	2.2	4.3	0.34		3.4	2.9	3.7	0.23	
Tail height (6 min), mm	46	39	54	3.40		45	37	49	3.59	
Number of samples	62					16				
COMPOSITE SAMPLES										
CLASS AND GRADE	Super	Grade 1	Grade 2	Grade 3	COW	Super	Grade 1	Grade 2	Grade 3	COW
Bühler Extraction, %	69.5	72.1	71.5	72.3	71.6	-	72.5	72.2	-	72.5
FLOUR										
Protein (12% mb), %	12.8	10.8	9.9	9.1	9.6	-	10.3	9.9	-	9.5
Moisture, %	13.5	13.3	13.8	13.1	13.7	-	13.5	13.5	-	13.4
Ash (db), %	0.97	0.55	0.54	0.54	0.50	-	0.57	0.58	-	0.58
Colour, Konica Minolta CM5 (dry)										
L*	92.76	93.83	94.00	94.09	94.30	-	93.85	94.01	-	94.09
a*	0.40	0.44	0.48	0.44	0.41	-	0.48	0.43	-	0.41
b*	8.56	9.25	9.41	9.50	9.33	-	9.53	9.35	-	9.57
RVA										
Peak Viscosity, cP	2090	2484	2503	2579	2545	-	2542	2607	-	2495
Minimum viscosity (Trough), cP	1515	1868	1925	2017	1950	-	2033	1946	-	1971
Final Viscosity, cP	2261	2890	2933	3044	3001	-	2870	2876	-	2830
Peak Time, min	7.00	7.00	7.00	7.00	7.00	-	7.00	7.00	-	7.00
GLUTEN										
Wet gluten (14% mb), %	37.3	28.5	25.4	22.7	24.4	-	27.5	25.7	-	23.7
Dry gluten (14% mb), %	11.9	9.3	8.3	7.4	8.0	-	9.2	8.4	-	7.9
Gluten Index	86	94	94	95	95	-	96	96	-	97
FARINOGRAM										
Water absorption (14% mb), %	64.4	58.3	57.2	56.1	56.6	-	57.0	56.0	-	55.9
Development time, min	7.0	4.5	3.2	1.4	4.3	-	4.3	5.3	-	5.4
Stability, min	16.4	11.4	11.2	8.1	11.4	-	9.3	13.1	-	12.3
Mixing tolerance index, BU	26	31	24	38	27	-	40	31	-	33
EXTENSOGRAM (45 min pull)										
Area, cm²	122	116	107	86	109	-	117	110	-	101
Maximum height, BU	402	431	410	368	431	-	446	467	-	408
Extensibility, mm	222	198	192	172	184	-	193	175	-	185
ALVEOGRAM										
Strength (S), cm²	45.0	37.2	36.4	30.0	36.1	-	34.9	35.6	-	31.5
Stability (P), mm	93	72	68	65	70	-	66	67	-	63
Distensibility (L), mm	127	127	144	117	133	-	137	135	-	128
Configuration ratio (P/L)	0.73	0.57	0.47	0.56	0.53	-	0.48	0.50	-	0.49
MIXOGRAM										
Peak time, min	2.3	3.3	3.3	3.3	3.4	-	2.9	3.4	-	3.2
100 g BAKING TEST										
Loaf volume, cm³	1095	998	991	914	953	-	1015	947	-	919

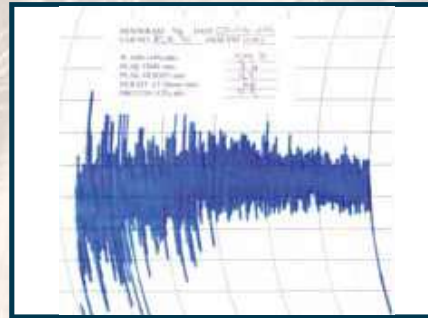
Rheological Graphs Per Production Region

MIXOGRAM

3

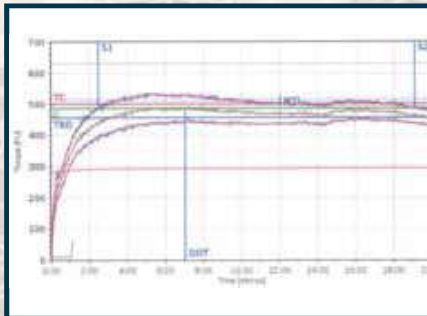


4

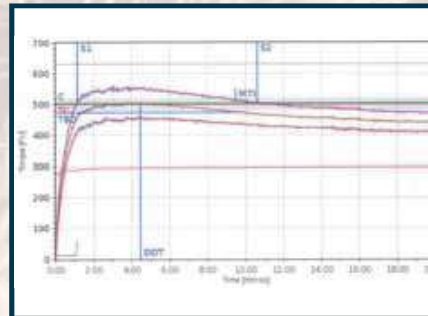


FARINOGRAM

3

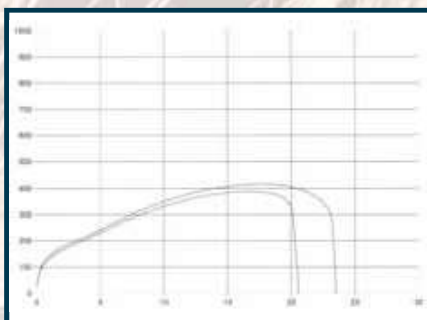


4

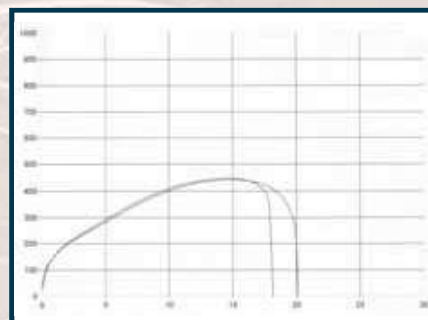


EXTENSOGRAM

3

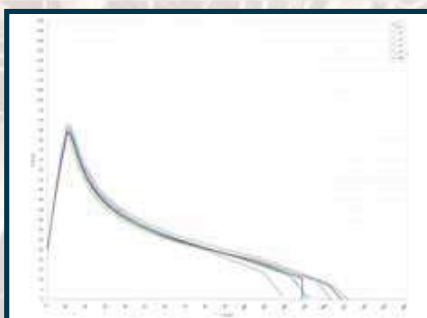


4

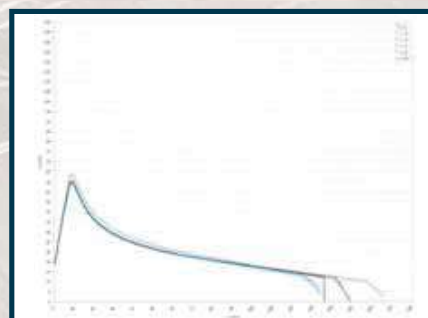


ALVEOGRAM

3



4



South African quality data per production region

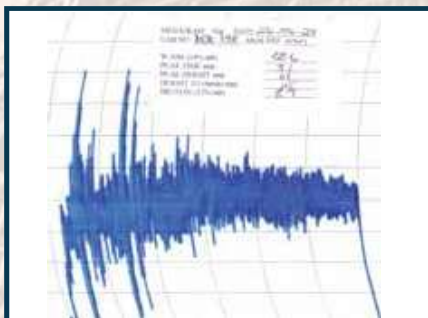
WINTER RAINFALL WHEAT

PRODUCTION REGION	(5) Rüens Western Region					(6) Rüens Eastern Region				
WHEAT										
	ave	min	max	stdev		ave	min	max	stdev	
Protein (12% mb), %	10.8	9.1	12.8	1.15		10.8	9.0	12.9	0.90	
Falling number, sec	373	272	473	46.16		350	266	440	36.84	
Moisture, %	10.8	8.1	11.8	0.96		11.0	8.8	12.4	0.63	
1000 Kernel mass (13% mb), g	40.0	31.4	45.9	3.37		42.2	31.6	49.7	3.42	
Hectolitre mass (dirty), kg/hl	78.3	75.8	79.9	1.28		76.7	72.8	80.9	1.83	
Screenings (<1.8 mm sieve), %	1.13	0.25	3.09	0.61		0.78	0.08	4.26	0.81	
Total damaged kernels, %	0.29	0.03	1.19	0.26		0.86	0.00	6.49	1.16	
Combined deviations, %	1.98	0.49	5.05	1.06		1.97	0.41	6.99	1.43	
Number of samples	23					49				
MIXOGRAM (Quadromat Junior)										
	ave	min	max	stdev		ave	min	max	stdev	
Peak time, min	3.2	2.4	3.9	0.32		3.1	2.3	3.9	0.38	
Tail height (6 min), mm	46	40	51	2.59		45	29	56	5.20	
Number of samples	23					49				
COMPOSITE SAMPLES										
CLASS AND GRADE	Super	Grade 1	Grade 2	Grade 3	COW	Super	Grade 1	Grade 2	Grade 3	COW
Bühler Extraction, %	73.5	73.0	74.2	74.4	73.4	73.5	73.9	74.4	74.0	72.9
FLOUR										
Protein (12% mb), %	11.7	10.9	10.0	8.9	9.8	11.9	10.8	10.0	9.1	9.6
Moisture, %	13.2	13.0	12.6	12.4	13.0	12.4	12.3	12.1	13.6	13.0
Ash (db), %	0.58	0.57	0.58	0.60	0.59	0.62	0.56	0.61	0.59	0.58
Colour, Konica Minolta CM5 (dry)										
L*	93.68	93.77	93.55	93.70	93.75	93.56	93.59	93.59	93.76	93.50
a*	0.56	0.49	0.53	0.46	0.41	0.49	0.45	0.44	0.41	0.46
b*	8.76	9.06	9.58	9.06	9.30	8.59	8.60	8.74	8.76	8.70
RVA										
Peak Viscosity, cP	2407	2344	2414	2616	2717	2224	2232	2282	2375	2283
Minimum viscosity (Trough), cP	1832	1818	1865	2022	1993	1681	1749	1802	1867	1831
Final Viscosity, cP	2659	2657	2773	2987	3055	2432	2453	2502	2648	2524
Peak Time, min	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
GLUTEN										
Wet gluten (14% mb), %	32.3	30.1	25.6	23.0	25.6	34.2	30.4	26.6	23.5	25.4
Dry gluten (14% mb), %	10.8	9.9	8.6	7.4	8.5	11.1	9.9	8.7	7.7	8.4
Gluten Index	78	82	91	88	95	76	83	96	92	92
FARINOGRAM										
Water absorption (14% mb), %	57.9	59.6	56.5	55.7	56.3	62.3	60.7	57.6	57.1	57.8
Development time, min	4.4	4.5	4.1	4.2	3.6	4.4	4.3	3.6	2.1	3.5
Stability, min	7.3	9.1	7.2	8.1	8.2	9.2	8.2	7.1	6.5	6.4
Mixing tolerance index, BU	59	41	55	45	41	35	44	52	43	58
EXTENSOGRAM (45 min pull)										
Area, cm²	112	112	89	75	84	97	78	87	80	72
Maximum height, BU	442	386	345	346	352	315	304	350	336	325
Extensibility, mm	184	211	187	155	173	219	186	177	170	162
ALVEOGRAM										
Strength (S), cm²	38.1	37.5	30.7	26.8	27.8	36.9	35.3	29.8	26.9	29.2
Stability (P), mm	69	72	59	60	60	76	75	70	64	66
Distensibility (L), mm	152	143	144	118	124	136	131	109	114	125
Configuration ratio (P/L)	0.45	0.50	0.41	0.51	0.48	0.56	0.57	0.64	0.56	0.53
MIXOGRAM										
Peak time, min	2.4	2.5	2.7	2.8	3.1	2.1	2.3	2.9	2.8	3.0
100 g BAKING TEST										
Loaf volume, cm³	1037	999	955	862	940	1006	978	977	924	915

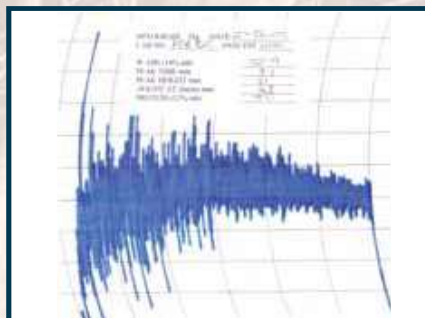
Rheological Graphs Per Production Region

MIXOGRAM

5

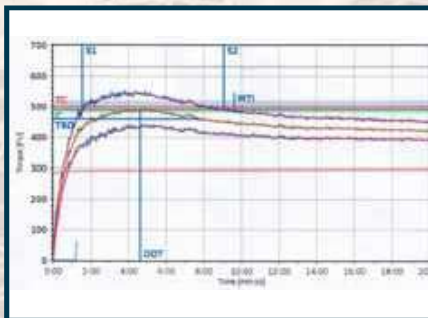


6

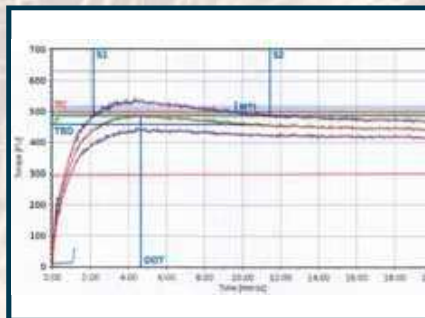


FARINOGRAM

5

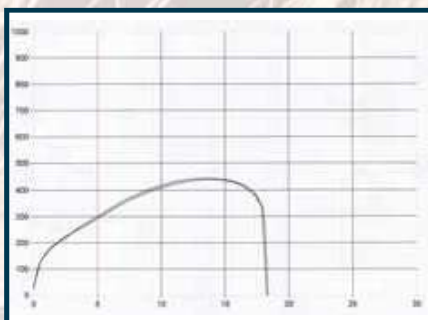


6

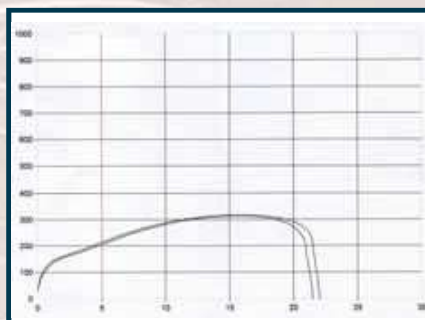


EXTENSOGRAM

5

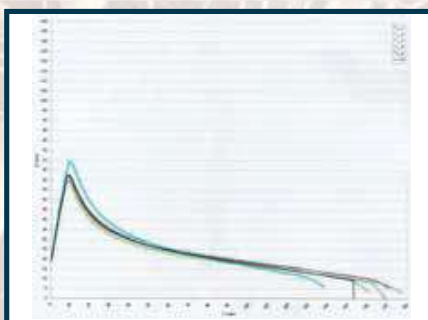


6

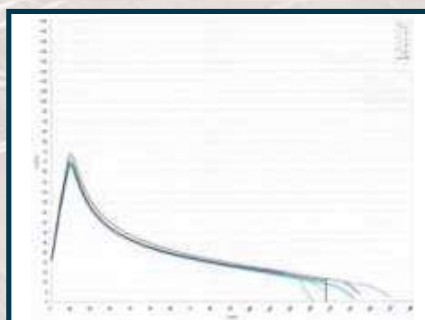


ALVEOGRAM

5



6



South African quality data per production region

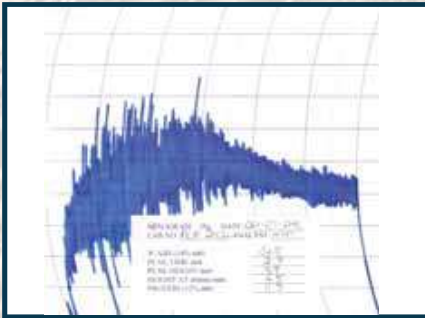
IRRIGATION WHEAT

PRODUCTION REGION	(10) Griqualand West Region					(11) Vaalharts Region				
WHEAT										
	ave	min	max	stdev		ave	min	max	stdev	
Protein (12% mb), %	12.2	8.8	14.5	1.27		11.2	10.0	12.8	1.11	
Falling number, sec	360	262	499	58.98		339	306	370	21.88	
Moisture, %	9.4	7.0	12.1	1.08		10.8	10.1	11.3	0.48	
1000 Kernel mass (13% mb), g	39.3	32.4	45.0	3.20		42.1	40.9	43.8	1.07	
Hectolitre mass (dirty), kg/hl	83.7	80.0	86.1	1.70		83.4	82.7	84.0	0.46	
Screenings (<1.8 mm sieve), %	1.22	0.09	5.77	1.28		0.45	0.13	2.19	0.77	
Total damaged kernels, %	0.17	0.00	0.61	0.16		0.31	0.08	0.61	0.20	
Combined deviations, %	1.61	0.22	6.41	1.34		1.12	0.46	2.56	0.71	
Number of samples	42					7				
MIXOGRAM (Quadromat Junior)										
	ave	min	max	stdev		ave	min	max	stdev	
Peak time, min	3.1	2.1	5.7	0.77		3.0	2.4	3.4	0.35	
Tail height (6 min), mm	46	37	57	4.63		47	44	53	3.31	
Number of samples	42					7				
COMPOSITE SAMPLES										
CLASS AND GRADE	Super	Grade 1	Grade 2	Grade 3	COW	Super	Grade 1	Grade 2	Grade 3	COW
Bühler Extraction, %	73.8	73.7	74.9	74.9	73.8	-	75.5	73.8	74.9	-
FLOUR										
Protein (12% mb), %	11.5	11.0	9.9	10.0	10.2	-	11.1	10.5	10.2	-
Moisture, %	13.7	13.7	13.4	13.2	13.1	-	13.1	13.6	13.5	-
Ash (db), %	0.61	0.60	0.61	0.63	0.60	-	0.74	0.58	0.63	-
Colour, Konica Minolta CM5 (dry)										
L*	93.44	93.64	93.55	93.61	93.46	-	93.29	93.74	93.28	-
a*	0.59	0.60	0.55	0.55	0.51	-	0.58	0.60	0.51	-
b*	10.78	10.92	11.29	11.19	10.98	-	10.96	11.20	11.02	-
RVA										
Peak Viscosity, cP	2304	2195	2245	2227	2474	-	2213	2186	2264	-
Minimum viscosity (Trough), cP	1822	1760	1721	1744	1983	-	1822	1722	1850	-
Final Viscosity, cP	2543	2471	2544	2520	2762	-	2459	2479	2544	-
Peak Time, min	7.00	7.00	7.00	7.00	7.00	-	7.00	7.00	7.00	-
GLUTEN										
Wet gluten (14% mb), %	31.9	30.9	27.1	26.7	27.5	-	31.1	29.2	27.2	-
Dry gluten (14% mb), %	10.8	9.8	8.7	8.5	8.8	-	9.8	9.4	8.7	-
Gluten Index	88	89	94	95	95	-	94	93	96	-
FARINOGRAM										
Water absorption (14% mb), %	61.5	61.8	60.5	60.0	58.4	-	61.1	60.7	59.9	-
Development time, min	6.5	5.1	5.5	5.1	5.1	-	4.3	4.4	5.2	-
Stability, min	12.3	9.4	8.4	8.2	9.0	-	8.2	6.5	7.4	-
Mixing tolerance index, BU	32	41	48	54	44	-	43	49	50	-
EXTENSOGRAM (45 min pull)										
Area, cm²	121	102	98	95	105	-	88	-	95	-
Maximum height, BU	439	380	422	408	453	-	292	-	366	-
Extensibility, mm	206	194	172	172	172	-	215	-	191	-
ALVEOGRAM										
Strength (S), cm²	45.1	39.4	42.0	40.5	36.4	-	31.8	34.9	33.6	-
Stability (P), mm	84	80	94	85	77	-	66	74	74	-
Distensibility (L), mm	130	122	102	111	111	-	133	124	110	-
Configuration ratio (P/L)	0.65	0.66	0.92	0.77	0.69	-	0.50	0.60	0.67	-
MIXOGRAM										
Peak time, min	2.9	2.5	2.8	3.0	3.3	-	2.4	2.4	3.1	-
100 g BAKING TEST										
Loaf volume, cm³	1053	1077	931	937	968	-	1042	1027	928	-

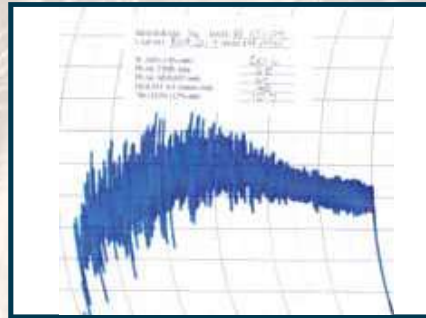
Rheological Graphs Per Production Region

MIXOGRAM

10

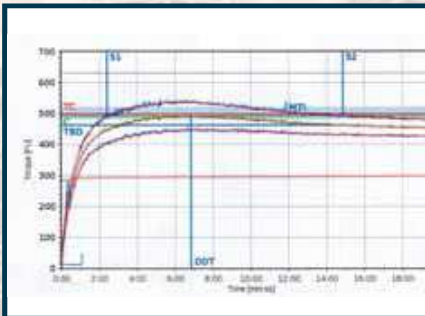


11

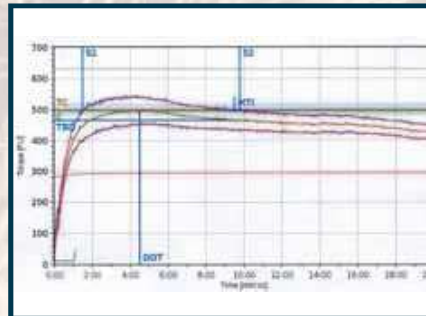


FARINOGRAM

10

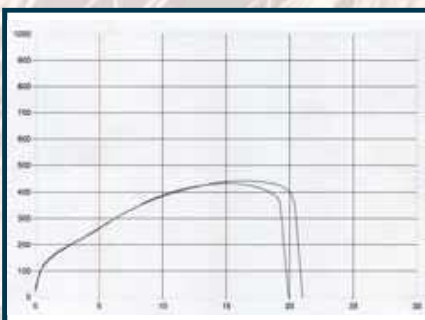


11

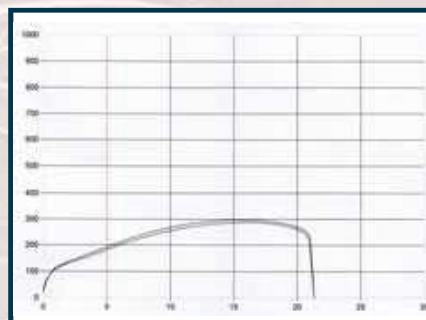


EXTENSOGRAM

10

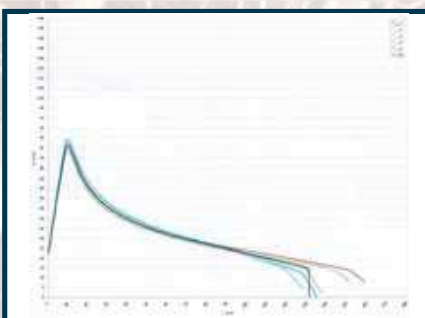


11

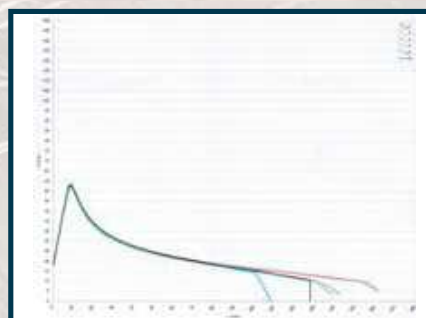


ALVEOGRAM

10



11



South African quality data per production region

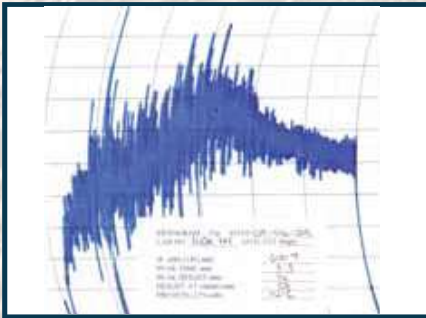
IRRIGATION WHEAT

PRODUCTION REGION	(14) North West Southern Region				(15) North West South-Eastern Region					
WHEAT										
	ave	min	max	stdev	ave	min	max	stdev		
Protein (12% mb), %	15.6	15.5	15.7	0.14	12.5	11.4	13.6	1.56		
Falling number, sec	447	415	478	44.55	385	384	385	0.71		
Moisture, %	11.2	11.1	11.3	0.14	11.0	11.0	11.0	0.00		
1000 Kernel mass (13% mb), g	33.1	30.5	35.6	3.61	43.7	43.0	44.3	0.92		
Hectolitre mass (dirty), kg/hl	78.8	76.4	81.1	3.32	81.0	81.0	81.0	0.00		
Screenings (<1.8 mm sieve), %	2.19	0.89	3.49	1.84	0.45	0.34	0.56	0.16		
Total damaged kernels, %	0.39	0.30	0.48	0.13	0.24	0.06	0.41	0.25		
Combined deviations, %	3.05	1.19	4.91	2.63	0.86	0.51	1.21	0.49		
Number of samples	2				2					
MIXOGRAM (Quadromat Junior)										
	ave	min	max	stdev	ave	min	max	stdev		
Peak time, min	4.1	3.3	4.8	1.06	3.5	3.3	3.7	0.28		
Tail height (6 min), mm	61	58	64	4.24	50	50	50	0.00		
Number of samples	2				2					
CLASS AND GRADE	COMPOSITE SAMPLES									
	Super	Grade 1	Grade 2	Grade 3	COW	Super	Grade 1	Grade 2	Grade 3	COW
Bühler Extraction, %	70.2	-	-	-	-	70.1	-	72.3	-	-
FLOUR										
Protein (12% mb), %	14.7	-	-	-	-	11.5	-	10.0	-	-
Moisture, %	13.8	-	-	-	-	13.4	-	12.9	-	-
Ash (db), %	0.59	-	-	-	-	0.46	-	0.43	-	-
Colour, Konica Minolta CM5 (dry)										
L*	93.47	-	-	-	-	93.57	-	93.81	-	-
a*	0.56	-	-	-	-	0.40	-	0.34	-	-
b*	9.62	-	-	-	-	10.95	-	10.87	-	-
RVA										
Peak Viscosity, cP	2441	-	-	-	-	2338	-	2371	-	-
Minimum viscosity (Trough), cP	1858	-	-	-	-	1857	-	1943	-	-
Final Viscosity, cP	2596	-	-	-	-	2713	-	2813	-	-
Peak Time, min	7.00	-	-	-	-	7.00	-	7.00	-	-
GLUTEN										
Wet gluten (14% mb), %	38.4	-	-	-	-	32.1	-	26.7	-	-
Dry gluten (14% mb), %	13.2	-	-	-	-	10.7	-	8.9	-	-
Gluten Index	97	-	-	-	-	93	-	97	-	-
FARINOGRAM										
Water absorption (14% mb), %	61.5	-	-	-	-	64.6	-	61.5	-	-
Development time, min	10.1	-	-	-	-	6.2	-	8.2	-	-
Stability, min	20.0	-	-	-	-	10.0	-	20.0	-	-
Mixing tolerance index, BU	12	-	-	-	-	39	-	25	-	-
EXTENSOGRAM (45 min pull)										
Area, cm²	223	-	-	-	-	104	-	116	-	-
Maximum height, BU	594	-	-	-	-	353	-	461	-	-
Extensibility, mm	273	-	-	-	-	211	-	186	-	-
ALVEOGRAM										
Strength (S), cm²	81.5	-	-	-	-	47.6	-	48.8	-	-
Stability (P), mm	101	-	-	-	-	120	-	124	-	-
Distensibility (L), mm	166	-	-	-	-	82	-	79	-	-
Configuration ratio (P/L)	0.61	-	-	-	-	1.46	-	1.57	-	-
MIXOGRAM										
Peak time, min	3.9	-	-	-	-	2.8	-	3.7	-	-
100 g BAKING TEST										
Loaf volume, cm³	1239	-	-	-	-	1005	-	955	-	-

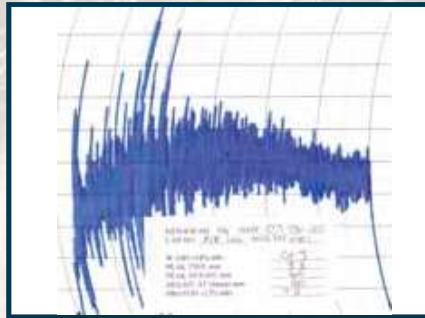
Rheological Graphs Per Production Region

MIXOGRAM

14

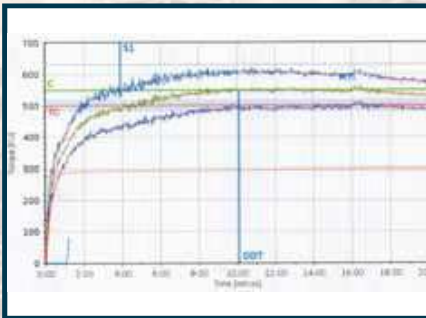


15

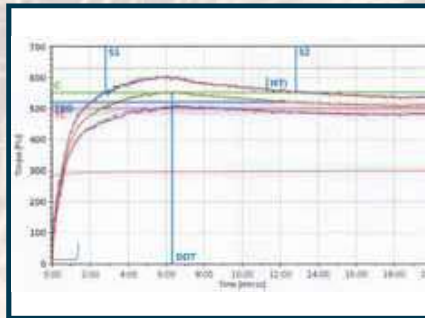


FARINOGRAM

14

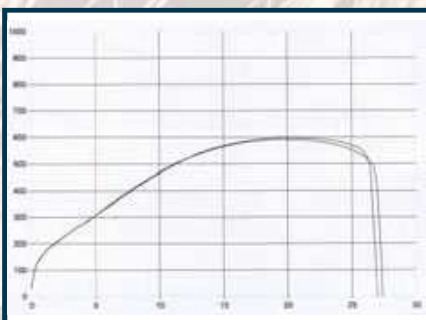


15

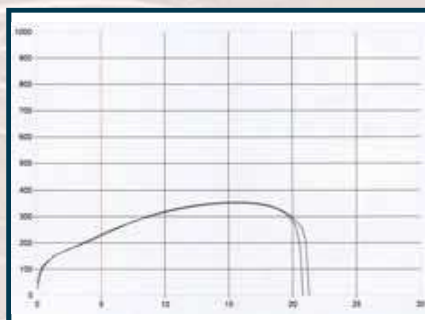


EXTENSOGRAM

14

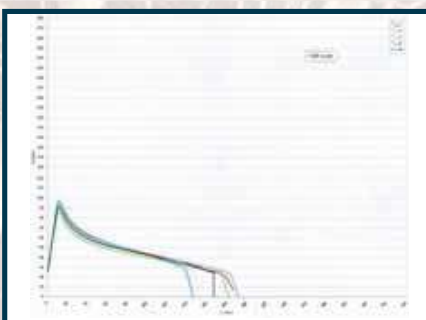


15

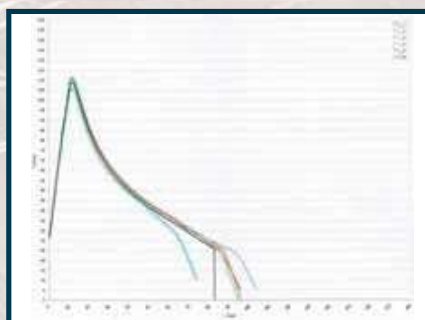


ALVEOGRAM

14



15



South African quality data per production region

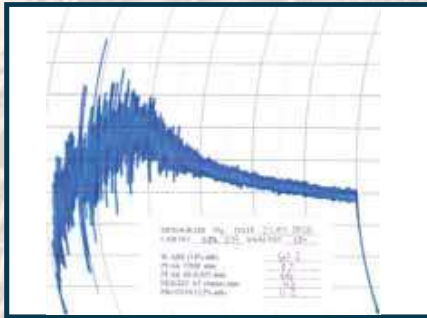
IRRIGATION WHEAT

PRODUCTION REGION	(19)				(20)					
	North West Central Region (Lichtenburg)				North West Eastern Region					
WHEAT										
	ave	min	max	stdev	ave	min	max	stdev		
Protein (12% mb), %	12.2	-	-	-	13.3	12.8	13.7	0.47		
Falling number, sec	405	-	-	-	495	473	509	19.29		
Moisture, %	9.0	-	-	-	9.2	8.0	10.8	1.46		
1000 Kernel mass (13% mb), g	43.9	-	-	-	40.0	32.8	48.8	8.13		
Hectolitre mass (dirty), kg/hl	86.3	-	-	-	84.1	82.0	85.8	1.93		
Screenings (<1.8 mm sieve), %	0.13	-	-	-	0.71	0.27	1.00	0.39		
Total damaged kernels, %	0.72	-	-	-	0.09	0.06	0.13	0.04		
Combined deviations, %	0.85	-	-	-	1.03	0.67	1.49	0.42		
Number of samples	1				3					
MIXOGRAM (Quadromat Junior)										
	ave	min	max	stdev	ave	min	max	stdev		
Peak time, min	1.7	-	-	-	2.9	2.4	3.2	0.44		
Tail height (6 min), mm	43	-	-	-	48	46	51	2.65		
Number of samples	1				3					
COMPOSITE SAMPLES										
CLASS AND GRADE	Super	Grade 1	Grade 2	Grade 3	COW	Super	Grade 1	Grade 2	Grade 3	COW
Bühler Extraction, %	75.6	-	-	-	-	75.8	-	-	-	-
FLOUR										
Protein (12% mb), %	11.1	-	-	-	-	12.3	-	-	-	-
Moisture, %	13.3	-	-	-	-	12.7	-	-	-	-
Ash (db), %	0.53	-	-	-	-	0.62	-	-	-	-
Colour, Konica Minolta CM5 (dry)										
L*	93.60	-	-	-	-	93.40	-	-	-	-
a*	0.47	-	-	-	-	0.57	-	-	-	-
b*	9.32	-	-	-	-	10.50	-	-	-	-
RVA										
Peak Viscosity, cP	2803	-	-	-	-	2361	-	-	-	-
Minimum viscosity (Trough), cP	2391	-	-	-	-	1865	-	-	-	-
Final Viscosity, cP	3126	-	-	-	-	2596	-	-	-	-
Peak Time, min	6.87	-	-	-	-	7.00	-	-	-	-
GLUTEN										
Wet gluten (14% mb), %	34.3	-	-	-	-	33.8	-	-	-	-
Dry gluten (14% mb), %	11.5	-	-	-	-	10.9	-	-	-	-
Gluten Index	92	-	-	-	-	86	-	-	-	-
FARINOGRAM										
Water absorption (14% mb), %	62.9	-	-	-	-	61.8	-	-	-	-
Development time, min	3.3	-	-	-	-	7.0	-	-	-	-
Stability, min	7.2	-	-	-	-	12.3	-	-	-	-
Mixing tolerance index, BU	38	-	-	-	-	33	-	-	-	-
EXTENSOGRAM (45 min pull)										
Area, cm²	70	-	-	-	-	117	-	-	-	-
Maximum height, BU	227	-	-	-	-	414	-	-	-	-
Extensibility, mm	216	-	-	-	-	205	-	-	-	-
ALVEOGRAM										
Strength (S), cm²	29.1	-	-	-	-	42.2	-	-	-	-
Stability (P), mm	67	-	-	-	-	75	-	-	-	-
Distensibility (L), mm	143	-	-	-	-	143	-	-	-	-
Configuration ratio (P/L)	0.47	-	-	-	-	0.52	-	-	-	-
MIXOGRAM										
Peak time, min	2.0	-	-	-	-	2.7	-	-	-	-
100 g BAKING TEST										
Loaf volume, cm³	1110	-	-	-	-	1113	-	-	-	-

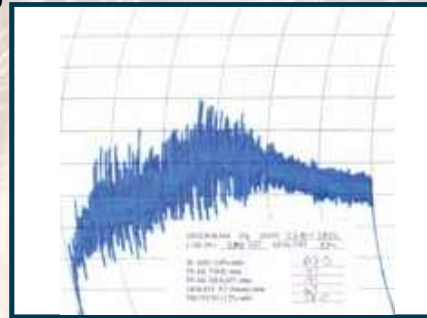
Rheological Graphs Per Production Region

MIXOGRAM

19

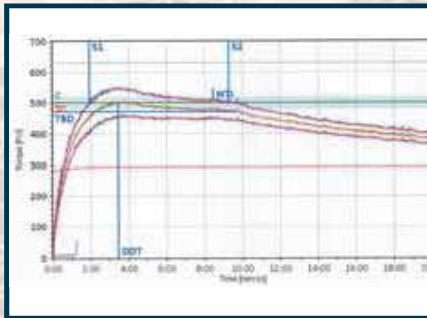


20

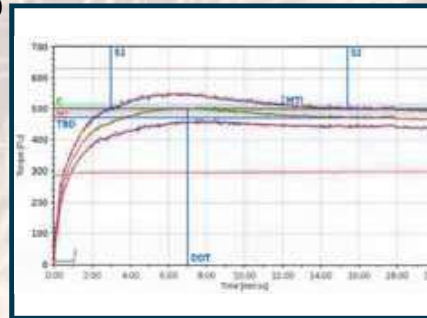


FARINOGRAM

19

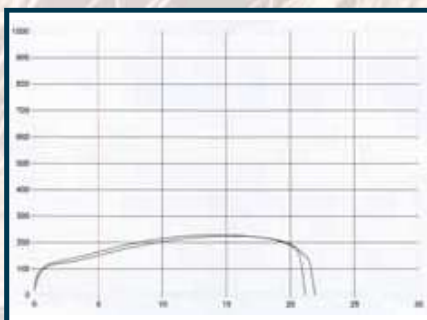


20

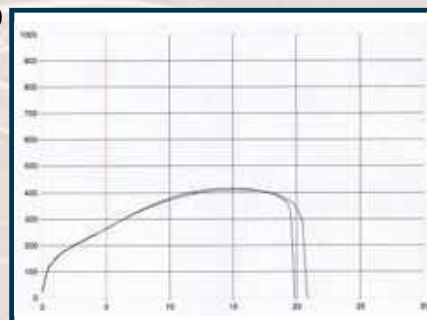


EXTENSOGRAM

19

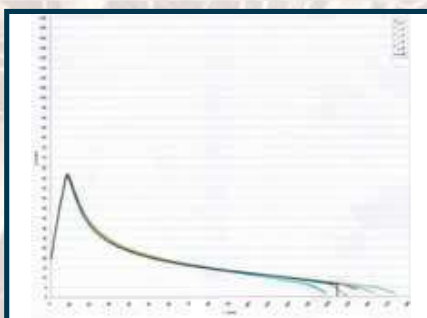


20

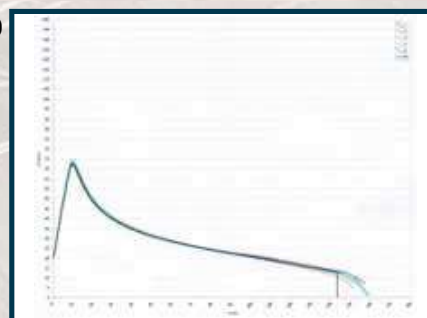


ALVEOGRAM

19



20



South African quality data per production region

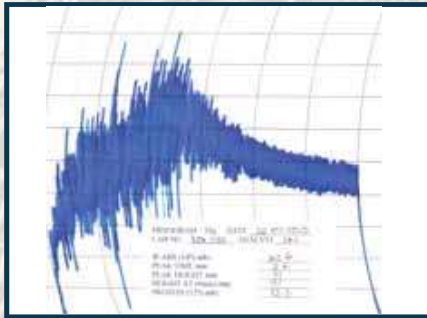
SUMMER RAINFALL AND IRRIGATION

PRODUCTION REGION	(21)				(22)					
	Free State North-Western Region (Viljoenskroon)				Free State North-Western Region (Bothaville)					
WHEAT										
	ave	min	max	stdev	ave	min	max	stdev		
Protein (12% mb), %	13.6	11.8	16.3	1.98	13.4	-	-	-		
Falling number, sec	374	342	445	48.46	427	-	-	-		
Moisture, %	11.1	10.9	11.4	0.24	7.6	-	-	-		
1000 Kernel mass (13% mb), g	38.5	33.5	46.5	5.75	40.1	-	-	-		
Hectolitre mass (dirty), kg/hl	81.2	78.4	84.5	2.66	85.8	-	-	-		
Screenings (<1.8 mm sieve), %	2.71	1.97	3.56	0.65	0.07	-	-	-		
Total damaged kernels, %	0.37	0.11	0.65	0.23	0.10	-	-	-		
Combined deviations, %	4.40	2.39	6.78	1.81	0.20	-	-	-		
Number of samples	4				1					
MIXOGRAM (Quadromat Junior)										
	ave	min	max	stdev	ave	min	max	stdev		
Peak time, min	2.7	2.6	2.8	0.10	2.7	-	-	-		
Tail height (6 min), mm	50	47	52	2.16	45	-	-	-		
Number of samples	4				1					
COMPOSITE SAMPLES										
CLASS AND GRADE	Super	Grade 1	Grade 2	Grade 3	COW	Super	Grade 1	Grade 2	Grade 3	COW
Bühler Extraction, %	73.2	-	-	-	-	75.9	-	-	-	-
FLOUR										
Protein (12% mb), %	13.7	-	-	-	-	12.4	-	-	-	-
Moisture, %	12.4	-	-	-	-	13.6	-	-	-	-
Ash (db), %	0.64	-	-	-	-	0.60	-	-	-	-
Colour, Konica Minolta CM5 (dry)										
L*	93.16	-	-	-	-	93.60	-	-	-	-
a*	0.54	-	-	-	-	0.62	-	-	-	-
b*	10.45	-	-	-	-	10.94	-	-	-	-
RVA										
Peak Viscosity, cP	2290	-	-	-	-	2289	-	-	-	-
Minimum viscosity (Trough), cP	1824	-	-	-	-	1923	-	-	-	-
Final Viscosity, cP	2432	-	-	-	-	2497	-	-	-	-
Peak Time, min	7.00	-	-	-	-	6.93	-	-	-	-
GLUTEN										
Wet gluten (14% mb), %	39.0	-	-	-	-	34.4	-	-	-	-
Dry gluten (14% mb), %	12.7	-	-	-	-	11.1	-	-	-	-
Gluten Index	82	-	-	-	-	91	-	-	-	-
FARINOGRAM										
Water absorption (14% mb), %	63.4	-	-	-	-	61.5	-	-	-	-
Development time, min	8.3	-	-	-	-	6.1	-	-	-	-
Stability, min	10.4	-	-	-	-	10.5	-	-	-	-
Mixing tolerance index, BU	39	-	-	-	-	37	-	-	-	-
EXTENSOGRAM (45 min pull)										
Area, cm²	133	-	-	-	-	82	-	-	-	-
Maximum height, BU	382	-	-	-	-	330	-	-	-	-
Extensibility, mm	251	-	-	-	-	179	-	-	-	-
ALVEOGRAM										
Strength (S), cm²	44.5	-	-	-	-	43.7	-	-	-	-
Stability (P), mm	70	-	-	-	-	72	-	-	-	-
Distensibility (L), mm	180	-	-	-	-	154	-	-	-	-
Configuration ratio (P/L)	0.39	-	-	-	-	0.47	-	-	-	-
MIXOGRAM										
Peak time, min	2.4	-	-	-	-	2.7	-	-	-	-
100 g BAKING TEST										
Loaf volume, cm³	1293	-	-	-	-	1149	-	-	-	-

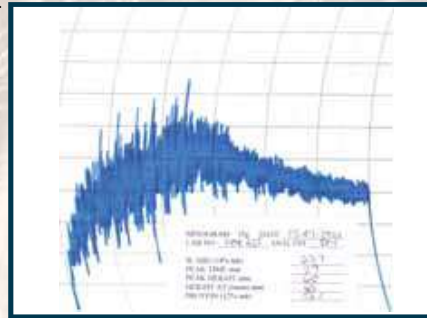
Rheological Graphs Per Production Region

MIXOGRAM

21

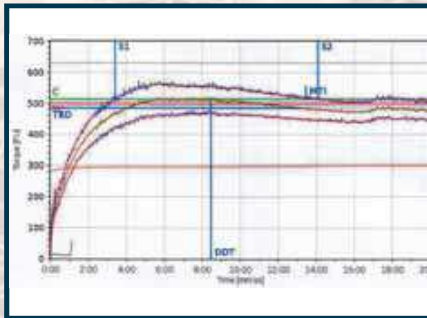


22

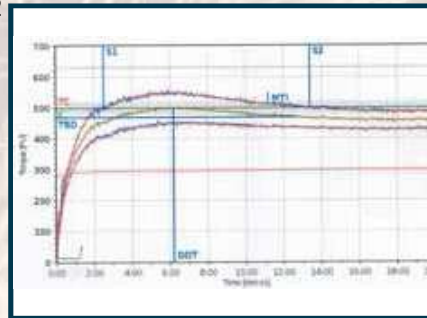


FARINOGRAM

21

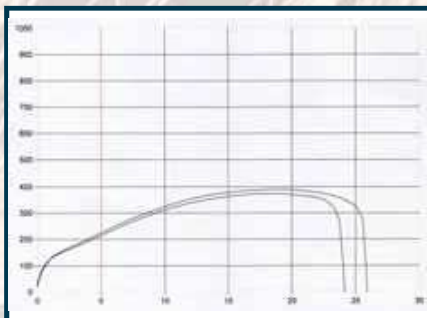


22

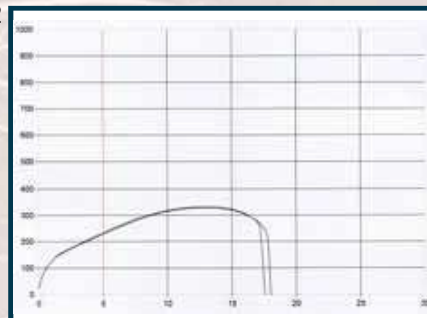


EXTENSOGRAM

21

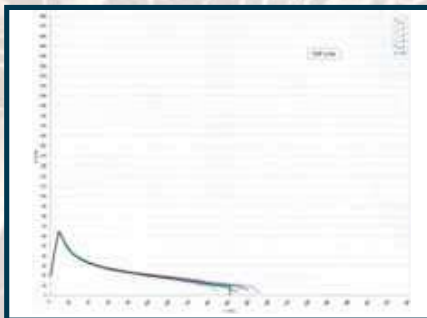


22

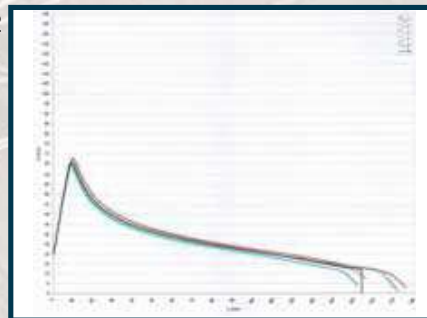


ALVEOGRAM

21



22



South African quality data per production region

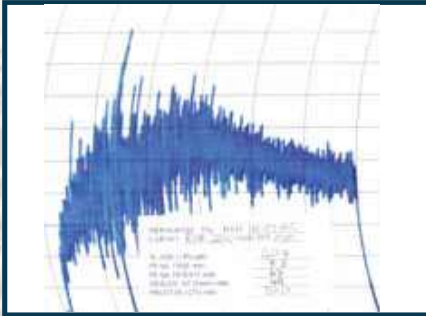
SUMMER RAINFALL AND IRRIGATION WHEAT

PRODUCTION REGION	(23) Free State North-Western Region (Bultfontein)					(24) Free State Central Region				
WHEAT										
	ave	min	max	stdev		ave	min	max	stdev	
Protein (12% mb), %	12.2	9.8	14.5	1.46		11.9	9.9	14.1	1.16	
Falling number, sec	377	331	513	50.34		369	296	495	54.29	
Moisture, %	9.7	8.1	11.0	0.93		10.5	8.5	11.3	0.75	
1000 Kernel mass (13% mb), g	38.1	33.7	44.2	3.31		37.1	29.9	47.5	4.02	
Hectolitre mass (dirty), kg/hl	81.7	80.4	85.1	1.59		81.2	76.8	85.5	1.94	
Screenings (<1.8 mm sieve), %	1.40	0.73	3.61	0.90		2.53	0.26	7.52	2.00	
Total damaged kernels, %	0.24	0.00	0.44	0.14		0.33	0.00	1.45	0.39	
Combined deviations, %	1.85	0.88	4.10	0.99		3.23	0.94	9.17	2.15	
Number of samples	11					20				
MIXOGRAM (Quadromat Junior)										
Peak time, min	3.1	2.4	4.0	0.47		3.3	2.2	5.3	0.85	
Tail height (6 min), mm	47	42	53	4.31		48	42	61	4.87	
Number of samples	11					20				
COMPOSITE SAMPLES										
CLASS AND GRADE	Super	Grade 1	Grade 2	Grade 3	COW	Super	Grade 1	Grade 2	Grade 3	COW
Bühler Extraction, %	73.2	73.0	70.5	75.6	-	72.5	71.6	73.0	74.6	74.3
FLOUR										
Protein (12% mb), %	12.4	10.9	10.4	9.3	-	12.4	11.0	9.8	9.3	11.1
Moisture, %	12.9	12.7	13.4	13.5	-	13.0	13.7	13.7	13.6	13.1
Ash (db), %	0.50	0.61	0.63	0.63	-	0.67	0.58	0.58	0.67	0.63
Colour, Konica Minolta CM5 (dry)										
L*	93.32	93.31	93.18	93.85	-	93.27	93.38	93.75	93.56	93.49
a*	0.45	0.51	0.51	0.51	-	0.55	0.57	0.51	0.56	0.52
b*	10.36	10.26	10.00	9.95	-	10.18	10.78	10.79	11.26	10.71
RVA										
Peak Viscosity, cP	2487	2251	2210	2581	-	2456	2522	2358	2553	2189
Minimum viscosity (Trough), cP	1911	1785	1825	2070	-	1890	2014	1854	2101	1771
Final Viscosity, cP	2795	2494	2409	2928	-	2732	2850	2671	2844	2362
Peak Time, min	7.00	7.00	7.00	7.00	-	7.00	7.00	7.00	7.00	7.00
GLUTEN										
Wet gluten (14% mb), %	34.6	31.4	29.2	25.5	-	35.2	29.4	26.7	25.4	30.7
Dry gluten (14% mb), %	11.4	10.0	9.4	8.2	-	11.4	9.6	8.8	8.2	9.7
Gluten Index	87	75	89	97	-	87	95	92	91	89
FARINOGRAM										
Water absorption (14% mb), %	63.6	61.1	59.6	58.9	-	62.7	59.9	59.9	55.6	58.9
Development time, min	5.4	4.2	4.4	4.1	-	4.5	7.2	5.4	4.3	5.4
Stability, min	8.4	7.3	6.2	5.5	-	9.4	8.1	7.6	6.1	8.6
Mixing tolerance index, BU	46	45	53	57	-	37	50	55	73	46
EXTENSOGRAM (45 min pull)										
Area, cm²	103	87	77	81	-	108	119	100	-	-
Maximum height, BU	367	322	354	316	-	378	445	402	-	-
Extensibility, mm	203	193	155	186	-	206	197	182	-	-
ALVEOGRAM										
Strength (S), cm²	47.9	35.9	32.0	27.8	-	37.6	43.7	37.9	25.1	36.9
Stability (P), mm	92	78	83	65	-	78	85	85	49	63
Distensibility (L), mm	130	121	93	124	-	119	127	108	163	165
Configuration ratio (P/L)	0.71	0.64	0.89	0.52	-	0.66	0.67	0.79	0.30	0.38
MIXOGRAM										
Peak time, min	2.5	2.3	2.6	2.5	-	2.2	2.9	3.0	2.9	3.2
100 g BAKING TEST										
Loaf volume, cm³	1110	993	907	1026	-	1070	965	900	1033	976

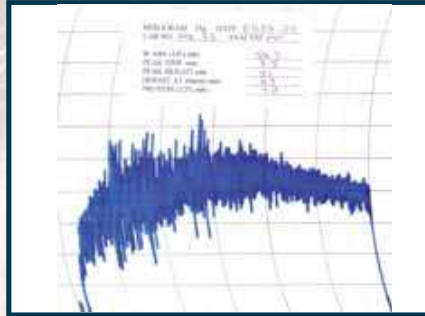
Rheological Graphs Per Production Region

MIXOGRAM

23

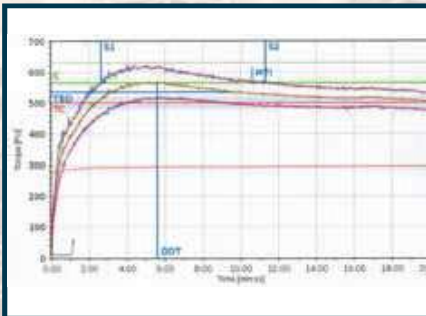


24

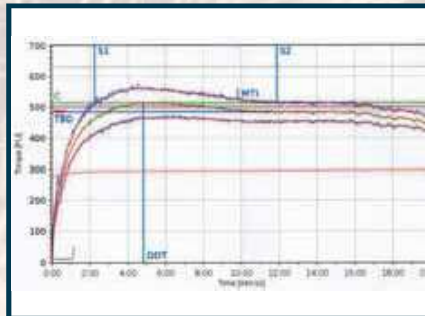


FARINOGRAM

23

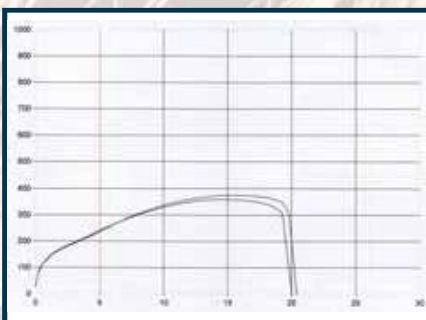


24

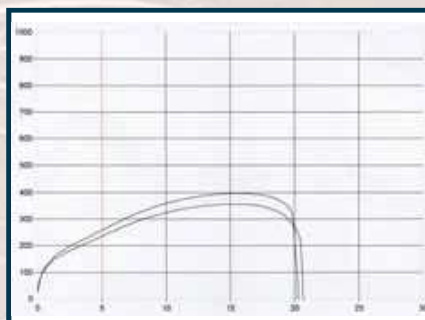


EXTENSOGRAM

23

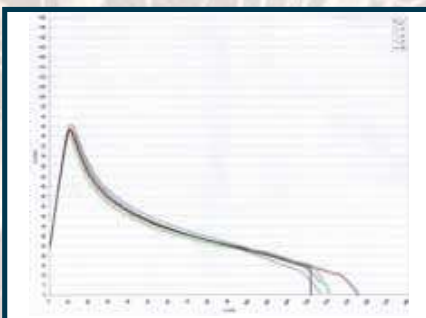


24

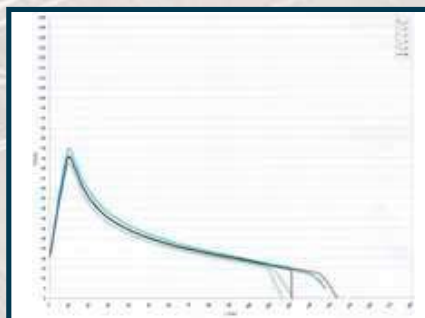


ALVEOGRAM

23



24



South African quality data per production region

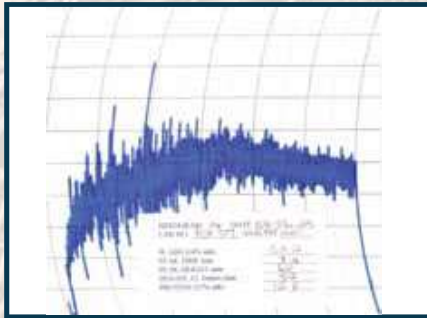
SUMMER RAINFALL AND IRRIGATION WHEAT

PRODUCTION REGION	(25)				(28)					
	Free State South-Western Region				Free State Eastern Region					
WHEAT										
	ave	min	max	stdev	ave	min	max	stdev		
Protein (12% mb), %	13.8	11.4	15.7	1.35	12.5	10.7	13.8	0.94		
Falling number, sec	357	245	413	42.51	370	282	514	60.97		
Moisture, %	11.3	10.0	13.4	0.90	11.4	10.4	12.4	0.54		
1000 Kernel mass (13% mb), g	36.3	25.0	50.2	7.66	38.1	30.6	41.7	3.58		
Hectolitre mass (dirty), kg/hl	78.3	66.5	85.4	5.09	81.4	76.7	85.3	2.55		
Screenings (<1.8 mm sieve), %	1.89	0.15	8.23	2.12	0.94	0.21	2.18	0.88		
Total damaged kernels, %	0.25	0.00	2.21	0.60	0.70	0.11	2.74	0.73		
Combined deviations, %	2.57	0.62	9.47	2.60	1.98	0.44	4.07	1.32		
Number of samples	13				11					
MIXOGRAM (Quadromat Junior)										
	ave	min	max	stdev	ave	min	max	stdev		
Peak time, min	3.4	2.8	5.4	0.67	3.6	2.3	5.2	1.02		
Tail height (6 min), mm	51	45	57	3.56	50	44	56	3.63		
Number of samples	13				11					
COMPOSITE SAMPLES										
CLASS AND GRADE	Super	Grade 1	Grade 2	Grade 3	COW	Super	Grade 1	Grade 2	Grade 3	COW
Bühler Extraction, %	71.2	74.8	74.4	70.7	-	74.4	72.6	74.5	-	-
FLOUR										
Protein (12% mb), %	12.4	10.6	10.4	13.4	-	12.4	11.0	10.0	-	-
Moisture, %	13.5	12.8	13.2	13.7	-	13.6	13.4	13.2	-	-
Ash (db), %	0.53	0.65	0.59	0.54	-	0.57	0.57	0.56	-	-
Colour, Konica Minolta CM5 (dry)										
L*	93.68	93.30	93.17	92.94	-	93.54	93.52	93.98	-	-
a*	0.39	0.54	0.54	0.39	-	0.46	0.43	0.42	-	-
b*	10.77	11.42	11.36	10.94	-	10.10	10.23	9.26	-	-
RVA										
Peak Viscosity, cP	2367	2119	2316	2262	-	2462	2537	2536	-	-
Minimum viscosity (Trough), cP	1790	1686	1869	1626	-	1974	1953	2114	-	-
Final Viscosity, cP	2724	2350	2550	2681	-	2749	2884	2879	-	-
Peak Time, min	7.00	7.00	7.00	7.00	-	7.00	7.00	7.00	-	-
GLUTEN										
Wet gluten (14% mb), %	32.9	25.1	28.5	35.0	-	33.8	27.3	26.3	-	-
Dry gluten (14% mb), %	10.8	8.1	9.1	11.4	-	11.0	9.0	8.6	-	-
Gluten Index	91	96	91	92	-	82	98	98	-	-
FARINOGRAM										
Water absorption (14% mb), %	63.3	61.6	60.9	62.4	-	61.8	60.1	59.6	-	-
Development time, min	9.3	4.2	5.5	8.5	-	5.1	8.3	5.4	-	-
Stability, min	20.0	6.1	9.2	20.0	-	8.5	17.1	10.6	-	-
Mixing tolerance index, BU	22	50	37	13	-	40	25	39	-	-
EXTENSOGRAM (45 min pull)										
Area, cm²	131	-	-	99	-	103	119	116	-	-
Maximum height, BU	444	-	-	364	-	340	467	424	-	-
Extensibility, mm	215	-	-	195	-	222	188	202	-	-
ALVEOGRAM										
Strength (S), cm²	55.5	32.4	34.6	45.7	-	41.9	44.8	37.0	-	-
Stability (P), mm	106	80	83	85	-	70	94	76	-	-
Distensibility (L), mm	113	109	100	123	-	175	100	122	-	-
Configuration ratio (P/L)	0.94	0.73	0.83	0.69	-	0.40	0.94	0.62	-	-
MIXOGRAM										
Peak time, min	3.0	2.6	2.9	3.4	-	2.2	3.9	2.9	-	-
100 g BAKING TEST										
Loaf volume, cm³	1126	947	940	1113	-	1168	979	1058	-	-

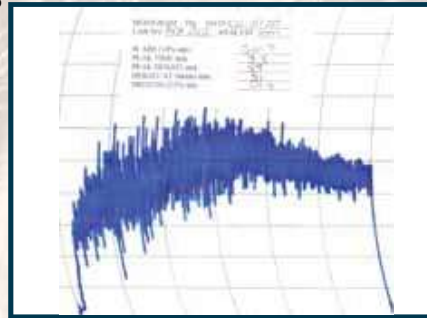
Rheological Graphs Per Production Region

MIXOGRAM

25

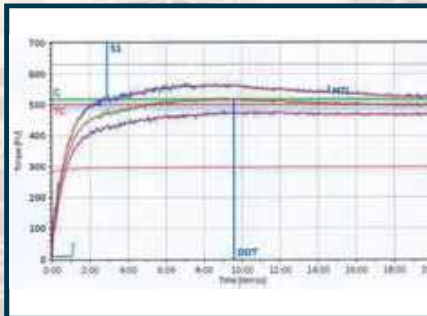


28

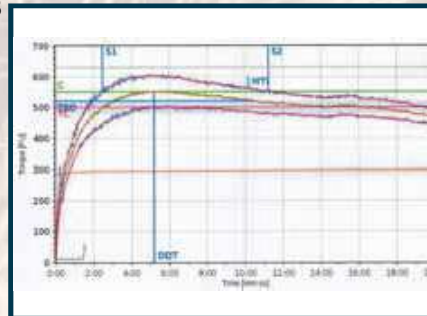


FARINOGRAM

25

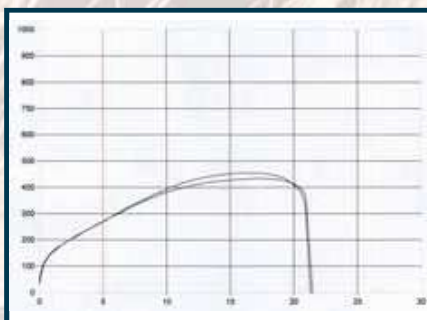


28

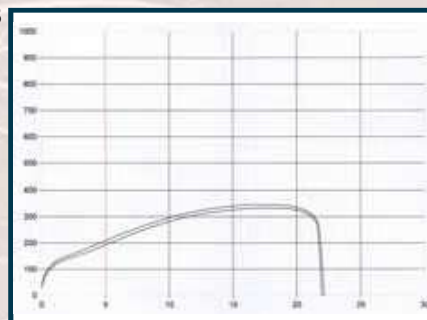


EXTENSOGRAM

25

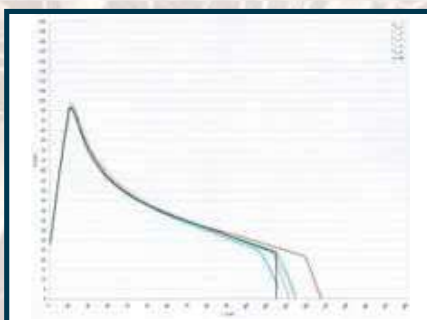


28

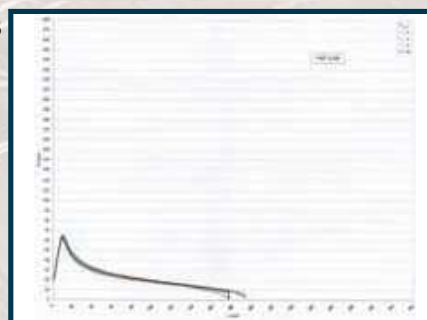


ALVEOGRAM

25



28



South African quality data per production region

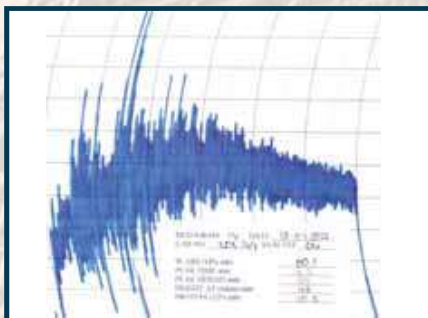
IRRIGATION WHEAT

PRODUCTION REGION	(33) Mpumalanga Northern Region					(35) Limpopo Region				
WHEAT										
	ave	min	max	stdev		ave	min	max	stdev	
Protein (12% mb), %	11.5	9.7	12.9	0.95		12.5	10.3	14.9	1.47	
Falling number, sec	335	194	419	51.20		388	322	485	55.69	
Moisture, %	11.0	10.5	12.0	0.42		10.0	8.9	11.3	0.72	
1000 Kernel mass (13% mb), g	38.0	30.2	42.8	3.11		38.8	33.4	45.8	4.47	
Hectolitre mass (dirty), kg/hl	83.0	80.9	85.4	1.37		82.8	78.4	85.6	2.05	
Screenings (<1.8 mm sieve), %	0.69	0.09	1.11	0.31		1.55	0.04	5.20	1.77	
Total damaged kernels, %	0.34	0.00	2.05	0.53		0.29	0.00	0.66	0.22	
Combined deviations, %	1.17	0.09	3.75	0.84		2.17	0.77	5.82	1.69	
Number of samples	19					12				
MIXOGRAM (Quadromat Junior)										
	ave	min	max	stdev		ave	min	max	stdev	
Peak time, min	3.5	2.8	4.1	0.39		3.1	2.4	4.0	0.58	
Tail height (6 min), mm	46	5	52	10.29		49	44	56	3.16	
Number of samples	19					12				
COMPOSITE SAMPLES										
CLASS AND GRADE	Super	Grade 1	Grade 2	Grade 3	COW	Super	Grade 1	Grade 2	Grade 3	COW
Bühler Extraction, %	74.7	75.0	74.5	74.8	73.5	73.6	73.0	73.9	74.4	-
FLOUR										
Protein (12% mb), %	11.8	10.9	10.0	9.2	11.3	12.7	10.7	10.3	9.3	-
Moisture, %	13.6	13.3	13.4	13.3	13.2	13.9	13.8	13.2	13.1	-
Ash (db), %	0.54	0.61	0.58	0.56	0.58	0.60	0.61	0.63	0.63	-
Colour, Konica Minolta CM5 (dry)										
L*	93.49	93.61	93.50	93.83	93.61	93.38	93.87	94.09	94.22	-
a*	0.48	0.53	0.48	0.48	0.51	0.59	0.51	0.45	0.41	-
b*	9.69	9.66	9.79	9.65	9.43	10.31	9.46	9.15	9.05	-
RVA										
Peak Viscosity, cP	2040	2562	2664	2749	1151	2532	2526	2829	2767	-
Minimum viscosity (Trough), cP	1722	2073	2209	2240	828	2027	1962	2090	2087	-
Final Viscosity, cP	2177	2770	2942	2933	1223	2768	2845	3221	3215	-
Peak Time, min	6.53	7.00	6.93	7.00	5.80	7.00	7.00	7.00	7.00	-
GLUTEN										
Wet gluten (14% mb), %	31.6	28.7	26.2	22.9	31.4	34.3	29.4	27.3	25.1	-
Dry gluten (14% mb), %	10.5	9.3	8.4	7.5	10.3	11.2	9.5	8.7	8.1	-
Gluten Index	92	95	95	98	93	95	94	96	94	-
FARINOGRAM										
Water absorption (14% mb), %	59.2	60.5	60.1	58.3	59.7	61.4	61.6	62.2	62.0	-
Development time, min	5.6	5.4	5.0	6.2	5.4	6.0	4.4	5.3	4.2	-
Stability, min	10.3	9.4	7.5	9.3	8.3	11.2	9.3	11.2	8.2	-
Mixing tolerance index, BU	39	45	54	46	50	28	42	30	46	-
EXTENSOGRAM (45 min pull)										
Area, cm²	128	113	101	93	123	140	102	121	100	-
Maximum height, BU	469	435	404	407	424	440	384	412	368	-
Extensibility, mm	205	190	181	166	212	235	195	213	194	-
ALVEOGRAM										
Strength (S), cm²	43.3	42.5	35.5	33.9	39.9	48.8	41.4	45.1	37.3	-
Stability (P), mm	72	89	82	78	71	75	87	94	98	-
Distensibility (L), mm	150	115	108	102	153	156	116	127	93	-
Configuration ratio (P/L)	0.48	0.77	0.76	0.76	0.46	0.48	0.75	0.74	1.05	-
MIXOGRAM										
Peak time, min	3.0	3.1	2.8	3.6	2.7	2.9	2.9	2.5	2.5	-
100 g BAKING TEST										
Loaf volume, cm³	1134	1064	997	924	1076	1116	960	1026	949	-

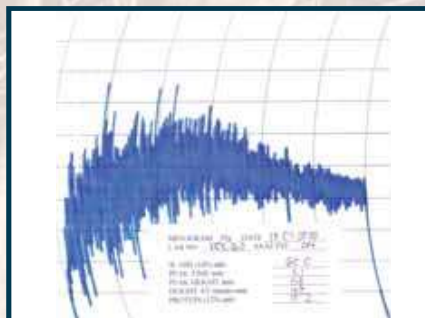
Rheological Graphs Per Production Region

MIXOGRAM

33

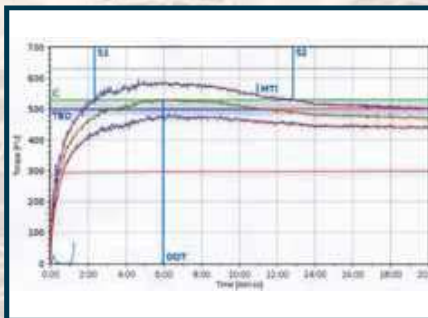


35

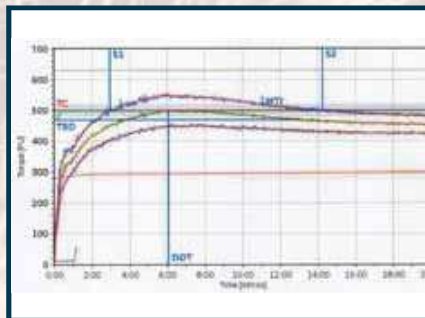


FARINOGRAM

33

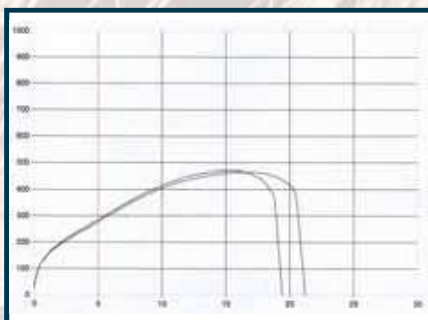


35

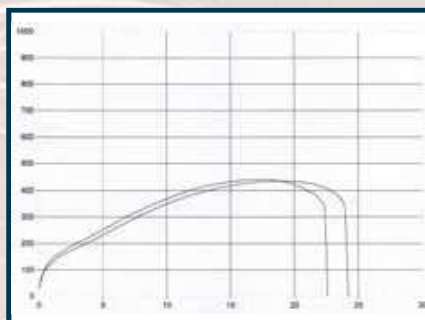


EXTENSOGRAM

33

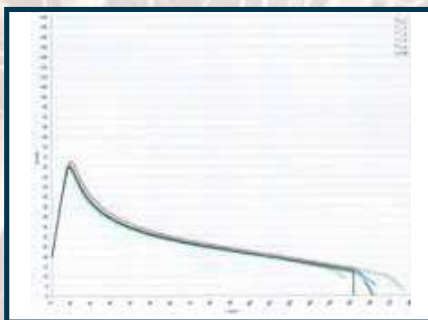


35

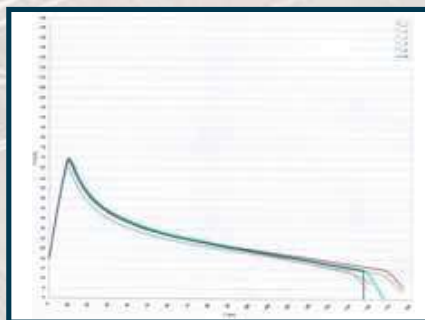


ALVEOGRAM

33



35



South African quality data per production region

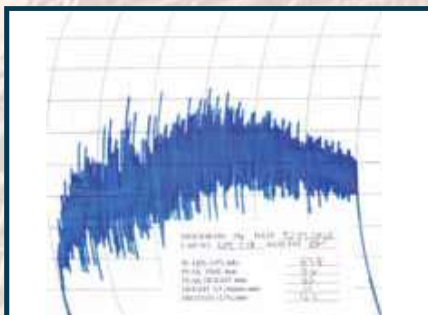
IRRIGATION WHEAT

PRODUCTION REGION		(36) KwaZulu-Natal				
WHEAT						
	ave	min	max	stdev		
Protein (12% mb), %	13.6	12.4	14.9	0.84		
Falling number, sec	310	215	374	58.41		
Moisture, %	10.8	9.9	11.3	0.44		
1000 Kernel mass (13% mb), g	37.5	33.8	40.6	2.74		
Hectolitre mass (dirty), kg/hl	80.7	77.2	84.2	2.45		
Screenings (<1.8 mm sieve), %	0.79	0.40	1.45	0.34		
Total damaged kernels, %	0.72	0.20	2.06	0.64		
Combined deviations, %	1.59	0.60	2.78	0.73		
Number of samples	9					
MIXOGRAM (Quadromat Junior)						
	ave	min	max	stdev		
Peak time, min	4.1	3.0	5.5	0.78		
Tail height (6 min), mm	53	51	56	2.26		
Number of samples	8					
CLASS AND GRADE		COMPOSITE SAMPLES				
		Super	Grade 1	Grade 2	Grade 3	COW
Bühler Extraction, %		74.5	73.8	-	-	-
FLOUR						
Protein (12% mb), %	12.6	11.4	-	-	-	
Moisture, %	13.3	12.9	-	-	-	
Ash (db), %	0.61	0.60	-	-	-	
Colour, Konica Minolta CM5 (dry)						
L*	93.33	93.72	-	-	-	
a*	0.51	0.50	-	-	-	
b*	9.06	9.30	-	-	-	
RVA						
Peak Viscosity, cP	1751	2259	-	-	-	
Minimum viscosity (Trough), cP	1396	1705	-	-	-	
Final Viscosity, cP	1851	2308	-	-	-	
Peak Time, min	6.27	6.27	-	-	-	
GLUTEN						
Wet gluten (14% mb), %	33.4	30.4	-	-	-	
Dry gluten (14% mb), %	11.2	10.2	-	-	-	
Gluten Index	96	96	-	-	-	
FARINOGRAM						
Water absorption (14% mb), %	62.3	58.7	-	-	-	
Development time, min	8.1	5.2	-	-	-	
Stability, min	13.5	15.6	-	-	-	
Mixing tolerance index, BU	27	16	-	-	-	
EXTENSOGRAM (45 min pull)						
Area, cm²	170	-	-	-	-	
Maximum height, BU	484	-	-	-	-	
Extensibility, mm	259	-	-	-	-	
ALVEOGRAM						
Strength (S), cm²	56.3	49.1	-	-	-	
Stability (P), mm	83	96	-	-	-	
Distensibility (L), mm	162	102	-	-	-	
Configuration ratio (P/L)	0.51	0.94	-	-	-	
MIXOGRAM						
Peak time, min	3.2	3.8	-	-	-	
100 g BAKING TEST						
Loaf volume, cm³	1105	1046	-	-	-	

Rheological Graphs Per Production Region

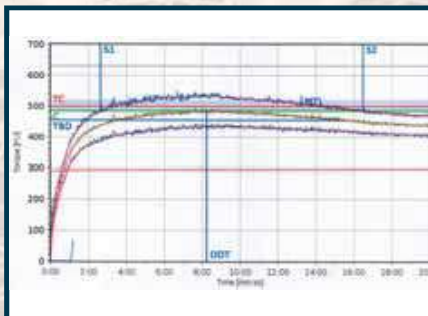
MIXOGRAM

36



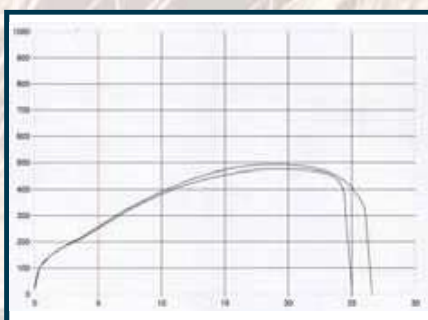
FARINOGRAM

36



EXTENSOGRAM

36



ALVEOGRAM

36

