REGIONAL QUALITY

WINTER RAINFALL AREA (Western Cape)

Production regions 1 to 6 fall within the winter rainfall area (Western Cape Province). Region 1 is Namaqualand, regions 2 to 4 are the Swartland area and regions 5 and 6 the Rûens area. The Western Cape had the highest production of all the provinces this season, namely 675 750 tons (35%) (CEC).

The hectolitre mass averaged 80.9 kg/hl. The thousand kernel mass averaged 38.2 gram, which is 1.7 g lower than the previous season. The average falling number was 412 seconds. The average whole wheat protein content of 11.6% (12% mb) was the lowest of the different production areas together with that of the Irrigation areas.



The screenings of 1.65% was lower than the previous season's 1.82%. The Bühler extraction averaged 73.3% (average of wheat grades B1 to B4, UT and COW) and the average colour of the flour was -2.9 KJ units. This colour indicates a very white flour that is preferred by millers and bakers.

The mixogram peak time (Quadromat mill) averaged 3.0 minutes. The average farinogram absorption was 61.2%. The average alveogram strength was 33.0 cm² and showed an 3.0 cm² increase on the previous season. The average strength on the extensogram was 78 cm². The alveogram strength in the Free State was 37.3 cm² and in the irrigation areas 33.6 cm².

The 100-gram baking test showed a very good relationship between protein content and bread volume.

SUMMER RAINFALL AREA (Free State)

Production regions 21 to 28, which fall within the Free State Province, made the second highest contribution to the total production figure, namely 551 250 tons (29%) (CEC).

The 2.5 tons/ha average yield in the Free State was higher than the 1.9 tons/ha of the previous season, but still the lowest yield overall.

The average hectolitre mass was 79.8 kg/hl. The physical characteristic thousand kernel mass (35.1 g) was lower than the previous season's 38.1 g. The average screenings was 1.60%. The average protein content decreased from 12.6% the previous season to 12.0% (12% mb) this season. Despite the fact that the samples which gave the lowest falling number values overall in this survey originated in the Free State production regions, the average falling number of 339 seconds was still within the ideal range.

The mixogram (Quadromat) peak time of 3.3 minutes was slightly shorter than the previous season, still giving the Free State the longest average mixogram peak time of the different production areas.

The average Bühler extraction percentage in the Free State was 73.3% (73.7% previous season). The Kent Jones flour colour was -2.5 KJ units (-0.9 KJ units in the previous season).

The average farinogram water absorption was 61.2%, compared to the 64.3% of 2010/2011. The overall farinogram water absorption decreased by 2% this season. The average alveogram strength was 37.3 cm^2 and extensogram strength 96 cm², both decreased from the previous season.

The 100-gram baking test showed that the relationship between protein content and bread volume was excellent between the different grades.



IRRIGATION AREAS (Northern Cape, North West (plus other irrigation areas))



Production regions 7, 10 - 12, 14 - 20 and 36 falls within the irrigation areas. These areas produced 465 550 tons of wheat this season which is 24% of the total production.

The average hectolitre mass was 81.5 kg/hl and the thousand kernel mass was 40.7 g (40.3 g the previous season). The average falling number was 395 seconds. The average screenings was 1.45% and the protein averaged 11.6% (12% mb), 0.5% lower than in 2010/2011.

The average mixogram (Quadromat) peak time was 2.8 minutes which was equal to the previous season.

The average Bühler extraction percentage was 75.0 (76.0% during the previous season), with an average flour colour of -2.9 KJ units.

As with the average protein content, the average wet and dry contents also decreased this year, as can be expected. The Irrigation areas had the highest average wet and dry gluten content (29.4% and 10.1% respectively) this season, with the Western Cape the lowest (28.1% and 9.7%).

The average farinogram water absorption was 61.7% (62.8% during previous season), with an average farinogram development time of 4.4 minutes.

The average alveogram strength was 33.6 cm^2 and the average P/L 0.84 (36.0 cm^2 and 1.01 respectively the previous season).

The average extensogram strength was 89 cm^2 . The relationship between protein content and 100 g bread volume was shown to be excellent.

OTHER SUMMER RAINFALL AND IRRIGATION AREAS (Mpumalanga, Limpopo and Gauteng)

Other summer rainfall regions, excluding the Free State, are mainly regions 30, 32, 33 (Mpumalanga), 34 (Gauteng) and 35 (Limpopo). They produced in total 212 730 tons during this season (11% of the total production).

The average hectolitre mass was 81.7 kg/hl, the highest of the four production areas. The average thousand kernel mass was 39.5 g (41.4 g the previous season).

The average falling number was 442 seconds, with the average percentage screenings 1.36%. The average protein content was 12.1% (12% mb), which is 0.3% higher than the previous season.

The average mixogram (Quadromat) peak time was 3.1 minutes, 0.5 minutes longer than in the 2010/2011 season.

The average Bühler extraction was 75.2%, with an average colour of -2.7 KJ units (76.0% and -2.0 KJ units the previous season). The farinogram average water absorption was 60.9% (63.3% the previous season) and had an average development time of 4.4 minutes.

The average alveogram strength was 36.9 cm^2 and the average extensogram strength 98 cm², both significantly higher than in 2010/2011. The P/L values over the four production areas ranged from 0.82 locally to 0.98 in the Winter rainfall area. These four averages all fell within the optimum range.

The 100-gram baking test showed a very good relationship between protein content and bread volume.

