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 - 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 556 500 tons (38 %) (CEC).

The hectolitre mass averaged 79.8 kg/hl. The thousand kernel mass averaged 39.9 gram, which is equal to the previous season. The average falling number was 391 seconds. The average protein content of 11.75 % (12 % mb) was the lowest of the different production areas.

Fairly favourable climatic conditions were experienced in the Swartland. Growing conditions in the Rûens were the worst experienced over a period of four years.



The screenings of 1.82 % was lower than the previous season's 2.02 %. The Bühler extraction averaged 74.7 % (average of wheat grades B1 to B4, UT and COW) and the average colour of the flour was -2.2 KJ units. This colour indicates a very white flour that is preferred by millers and bakers.

The mixogram peak time (Quadromat mill) averaged 2.7 minutes. The average farinogram absorption was 61.9 %. The average alveogram strength was 30.3 cm² and the average strength on the extensogram was 85 cm². The alveogram strength in the Free State was 41.2 cm² and in the irrigation areas 36.0 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, had the second highest production, namely 377 400 tons (26 %) (CEC).

The 1.9 tons/ha average yield in the Free State was lower than the 2.7 tons/ha of the previous season.

The average hectolitre mass was 79.7 kg/hl. The physical characteristic thousand kernel mass (38.1 g) was lower than the previous season's 38.4 g. The average screenings was 1.51 %. The average protein content increased from 11.93 % the previous season to 12.59 % (12 % mb) this season. Although the average falling number was 314 seconds, twenty four samples gave falling numbers lower than 250 seconds and twenty one samples were below 220 seconds. These low falling numbers were caused by preharvest sprouting due to late rains.

The mixogram (Quadromat) peak time of 3.5 minutes was similar to the previous season, 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 73.7 % (75.6 % previous season). The Kent Jones flour colour was -0.9 KJ units (-2.3 KJ units in the previous season).

The average farinogram water absorption was 64.3 %, the highest of all four areas. The average alveogram strength of 41.1 cm^2 and extensogram strength of 107 cm^2 were also the highest reported for all four areas.

The 100-gram baking test showed that the relationship between protein content and bread volume was good on average 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 428 420 tons of wheat this season (29 % of total production) with an average yield of 5.4 tons/hectare.

Due to the significant decrease in wheat produced under dryland conditions over the past ten years, the stable production situation of wheat under irrigation has proven to be an increasingly important stabilising factor in the total production of wheat in the RSA.

The average hectolitre mass was 81.3 kg/hl and the thousand kernel mass was 40.3 g (38.6 g the previous season). The average falling number was 407 seconds. The average screenings was 1.69 % and the protein averaged 12.11 % (12 % mb).

The average mixogram (Quadromat) peak time was 2.8 minutes which was more or less the same as the previous season.

The average Bühler extraction percentage was 76.0 (73.9 % during the previous season), with an average flour colour of -2.4 KJ units.

The average farinogram water absorption was 62.8 % (61.6 % during previous season), with an average farinogram development time of 5.7 minutes.

The average alveogram strength was 36.0 cm^2 and the average P/L $1.01 (40.0 \text{ cm}^2 \text{ and } 1.68 \text{ respectively})$ the previous season).

The average extensogram strength was 100 cm². The relationship between protein content and bread volume (with the 100-gram baking test) was shown to be very good.

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

Other summer rainfall regions, excluding the Free State, are mainly regions 29, 30, 32, 33 (Mpumalanga), 34 (Gauteng) and 35 (Limpopo). They produced in total 102 650 tons during this season (7 % of the total production).

The average hectolitre mass was 81.6 kg/hl, the highest of the four production areas. The average thousand kernel mass was 41.4 g (40.6 g the previous season), also the highest of the four areas.

The average falling number was 425 seconds, with the average percentage screenings 1.89 %. The average protein content was 11.78 % (12 % mb), which is similar to the previous year.

The average mixogram (Quadromat) peak time was 2.6 minutes (3.1 minutes the previous season).

The average Bühler extraction was 76.0 %, with an average colour of -2.0 KJ units (76.2 % and -2.1 KJ units the previous season). The farinogram average water absorption was 63.3 % (60.1 % the previous season) and had an average development time of 5.0 minutes.

The average alveogram strength was 31.9 cm² and the average extensogram strength 78 cm².

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

