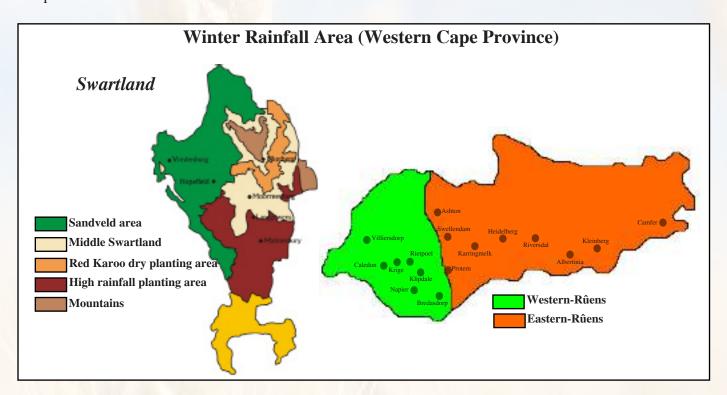
## **REGIONAL QUALITY**

# WINTER RAINFALL AREA (Western Cape)

Production regions 1 to 6 fall within the winter rainfall area (Western Cape Province). Regions 1 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 812 500 tons (44 %) (CEC).

The hectolitre mass averaged 77.7 kg/hl (the previous season 77.3 kg/hl). The thousand kernel mass averaged 38.9 gram, which is a little better than the previous season's 38.0 gram. The average falling number was 370 seconds.

The Western Cape had dry winters for a few previous seasons followed by a wet winter during this production season. This resulted in a very low average protein of 10.55 % (12 % mb) compared to the previous two season's 11.13 % and 11.53 %.



The screenings of 1.58 % were lower than the previous season's 1.80 %. The Bühler extraction averaged 74.4 % (average of wheat grades B1 to B4, UT and COW) and the average colour of the flour was -2.5 KJ units. This colour indicates a very white flour that is preferred by millers and bakers. The Free State gave a little higher Bühler extraction (75.0 %), but the flour colour (-1.6 KJ units) were not as good as that of the Western Cape.

The dough quality was the same as in the previous season. The mixogram peak time (Quadromat mill) averaged 2.9 minutes. The average farinogram absorption was 59.1 %. The average strength of the alveogram was 36.7 cm<sup>2</sup> and the average strength of the extensogram was 88 cm<sup>2</sup>, compared to the Free State (104 cm<sup>2</sup>) and 100 cm<sup>2</sup> in the irrigation areas.

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 516 000 tons (28 %) (CEC). The lower production this season compared to previous seasons, were because of negative planting conditions.

The Free State gave a little better yield of 2.4 tons/ha (2.2 tons/ha the previous season) because of very good spring rain.

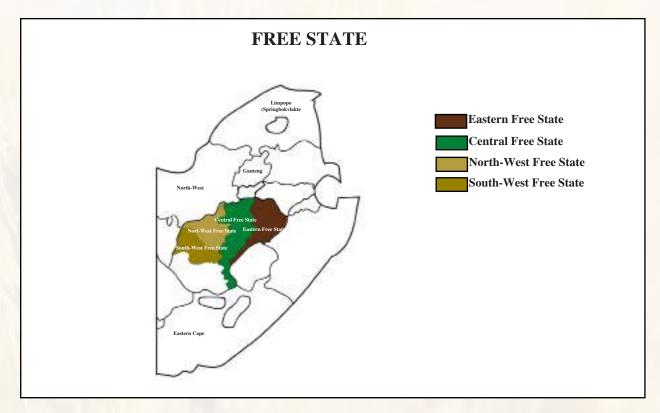
The average hectolitre mass (78.7 kg/hl) was the same as the previous seasons's. The physical characteristic thousand kernel mass (38.4 gram) were better than the previous season's 35.9 gram. The average screenings were 1.60 %. The average protein dropped from 11.71 % (12 % mb) to an average of 11.16 %. Although the average falling number was 337 seconds, eight samples gave a falling number lower than 250 seconds.

The mixogram (Quadromat) peak time was 3.3 minutes (3.0 minutes previous season), giving the Free State the longest average mixogram peak time of the different regional qualities.

The average Bühler extraction percentage in the Free State was 75 % (74.5 % previous season). The Kent Jones flour colour was -1.6 KJ units (-1.2 KJ units in previous season). The wheat of the Free State usually yields a little darker flour than the other regions, the three main producing areas yielded a weighted average colour of -1.9 KJ units this season.

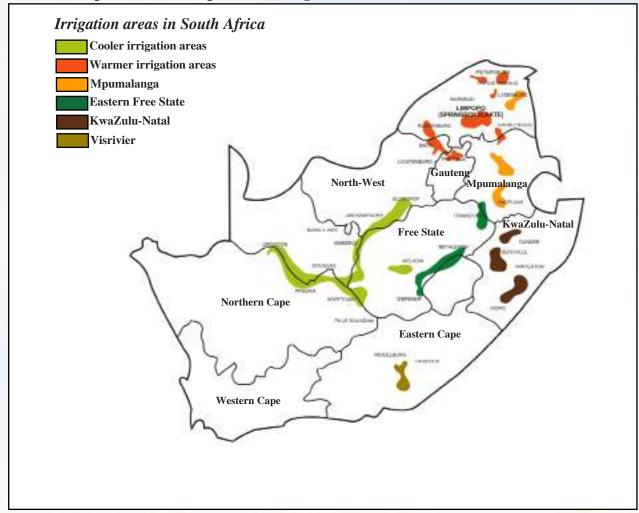
The average farinogram water absorption was 61.8 % (61.6 % the previous season), more or less the same as the other regions. The wheat from the Free State usually tends to give a stronger dough than the other regions, with an alveogram strength of 47.7 cm<sup>2</sup> and an extensogram strength of 104 cm<sup>2</sup>.

The 100-gram baking test showed that the relationship between protein content and bread volume was ranging from very good to poor, between the different grades.



#### **IRRIGATION AREAS**

(Northern Cape, North West (plus other irrigation areas).



Production regions 10 - 12, 14 - 20 and 36 falls within the irrigation areas. These areas produced 406 200 tons of wheat this season (22 % of total production) with a average yield of 5.8 tons/hectare.

The average hectolitre mass was 77.8 kg/hl (79.2 kg/hl the previous season) and the thousand kernel mass was 38.8 g (37.6 g the previous season). The average falling number was 372 seconds. The average screenings was 1.58 % and the protein averaged 11.61 % (12 % mb). Five samples gave falling number values of less than 250 seconds (five samples gave a falling number value less than 250 seconds).

The average mixogram (Quadromat) peak time was 2.7 minutes which was more or less the same as the previous season.

The average Bühler extraction percentage was 76.8 (75.6 % during the previous season), with an average flour colour of -1.7 KJ units.

The average farinogram water absorption was 61.3 % (61.2 % during previous season), with an average farinogram development time of 4.3 minutes.

The average alveogram strength was 42.2 cm<sup>2</sup> and the average P/L was 0.66 (35.2 cm<sup>2</sup> and 0.81 respectively the previous season).

The average extensogram strength was 100 cm<sup>2</sup>. The relationship between protein content and bread volume was shown to be excellent by the 100-gram baking test.

#### OTHER SUMMER RAINFALL AND IRRIGATION AREAS

(Mpumalanga, Limpopo, Gauteng and Eastern Cape)

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 109 200 tons during this season (6 % of the total production). No samples were received from the Eastern Cape region.

The average hectolitre mass was 77.8 kg/hl (79.1 kg/hl the previous season) and the average thousand kernel mass was 38.9 g (37.8 g the previous season). This is more or less the same as in the Western Cape and irrigation areas.

The average falling number was 391 seconds. The average percentage screenings was 1.73 %. The average protein content was 11.59 % (12 % mb), which is more or less the same than the previous year.

The average mixogram (Quadromat) peak time was 2.6 minutes (2.7 minutes the previous season).

The average Bühler extraction was 76.9 %, with an average colour of -1.6 KJ units (75.6 % and -1.3 KJ units the previous season). The farinogram average water absorption was 60.6 % (61.8 % the previous season) and had an average development time of 3.8 minutes.

The average alveogram strength was 38.0 cm<sup>2</sup>, with an average P/L value of 0.62, and the average extensogram strength was 90 cm<sup>2</sup>.

The 100-gram baking test showed an excellent relationship between protein content and bread volume.

