

# REGIONAL QUALITY

## WINTER RAINFALL AREA

(Western Cape)

Production regions 1 to 6 fall within the winter rainfall area, namely the southern and western Western Cape. Normal weather conditions prevailed in the Rûens area while drought resulted in a very low production in the Swartland area.

The final crop production estimation in the Western Cape was 487 500 tons (CEC), which is 48% lower than last year's production. The thousand kernel mass averaged 32,4 g (same as the wheat from the Free State, but less than the other summer rainfall and irrigation areas (36,5 g). Screenings on a 1,8 mm sieve averaged 2,47 %.

The protein averaged 12,0 % (12 % mb) which is higher than the previous season (11,2 %). The protein of the south-easterly planting area (Rûens) was much lower (10,8 %) than the drought-stricken western planting area (12,6 %).

The hectolitre mass averaged 77,5 kg/hl (78,5 kg/hl last season). The falling numbers were good (average of 392 seconds).

Mixogram peak time (wheat milled on quadromat) averaged 2,7 minutes (2,8 minutes the previous season).

Flour extraction averaged 73,8 %, which is 2,5 % lower than the previous season's 76,3 %. The extraction compares on average to the Free State but is about 1,5 % lower than the wheat from the other summer rainfall areas and irrigation areas.

The flour colour averaged -1,0 KJ units. Dough quality was good, with average water absorption (60,3 %), development time (4,0 minutes) and stability (5,9 minutes).

The relationship between protein content and bread volume was very good.

The alveogram strength gave a good average of 34,6 cm<sup>2</sup> with the strength increasing from 33,4 cm<sup>2</sup> (grade 4 wheat) to 39,1 cm<sup>2</sup> (grade 1 wheat).

## SUMMER RAINFALL AREA

(Free State)

Production regions 21 to 28 fall within the Free State province and were estimated to have a production of 455 000 tons (CEC). This is 40 % less than the previous year as a result of a drought. The thousand kernel mass averaged 32,0 g. The average screenings (1,8 mm sieve) were 2,03 %.

The protein averaged an abnormal high of 13,9 % because of the dry conditions. The average protein content in the northern and central Free State areas was slightly lower (13,6 %) than in the south-western and eastern Free State (14,3 %). The hectolitre mass averaged 76,7 kg/hl and was 1,2 kg/hl lower than the previous year.

The falling number values averaged 340 seconds.

Flour extraction (average 73,7 %) was about 2,4 % lower than the previous year.

The mixogram peak time (quadromat) decreased (average 2,9 minutes) this season, against 3,4 minutes the previous season and 3,9 during 2001/2002.

The flour colour averaged -0,2 KJ units. Dough quality was good, with water absorption averaging 62,6 % (62,9 % during 2002/2003), development time 5,4 minutes (4,0 minutes the previous season) and stability 8,0 minutes (6,6 minutes during 2002/2003).

The wheat from the summer rainfall area had very strong alveogram strengths averaging 50,0 cm<sup>2</sup>.

## **SUMMER RAINFALL AREA**

(Eastern Cape, North West, Mpumalanga, Gauteng, Limpopo and KwaZulu-Natal)

This includes regions 12, 14 to 20, 30 to 36. The estimated crop production for these regions was 234 100 tons (CEC), which is 34 % lower than last year's production.

The thousand kernel mass averaged 36,3 g (39,0 the previous season), which is about 4 g higher than that of the Western Cape and the Free State.

The average protein content was 12,8 % (1 % higher than the previous season). The hectolitre mass averaged 77,5 kg/hl (79,8 kg/hl in 2002/2003). The average falling number value was 377 seconds.

Flour extraction averaged 75,4 % against 78,4 % the previous season. This is mainly a result of the smaller / thinner kernels due to dry conditions.

The mixogram peak time (quadromat) average was 2,9 minutes (2,3 the previous season).

The flour colour averaged -0,6 KJ units. The water absorption on the farinograph averaged 60,7 % (64,5 % the previous season), development time 4,0 minutes (4,2 minutes the previous season) and stability 6,4 minutes (5,2 minutes the previous season).

The relationship between protein content and bread volume was excellent.

This area gave a good average alveogram strength of 37,6 cm<sup>2</sup>. The strength also increased from 28,0 cm<sup>2</sup> (grade 4 wheat) to 43,5 cm<sup>2</sup> (grade 1 wheat).

## **IRRIGATION AREA**

(Vaal and Orange Rivers)

The majority of irrigation intake silos are in regions 10 and 11, with an estimated crop production of 251 550 tons (CEC), which is 8 % lower than the previous year. Irrigation wheat is also produced in some dryland areas such as North West, Limpopo, Mpumalanga, Free State, Eastern Cape, Gauteng and KwaZulu-Natal.

The thousand kernel mass averaged 36,8 g (compared with 39,9 g last year), which is about 4,6 g better than the wheat of the Western Cape and Free State areas.

The protein averaged 11,60 %, which is the same than the previous year. The falling number averaged 357 seconds. The hectolitre mass average was 78,0 kg/hl (80,1 kg/hl during 2002/2003), the highest of all areas.

Büchler flour extraction had an average of 75,3 %, which is 2,9 % less than the previous season (78,2 %).

The mixogram peak time (quadromat) averaged 2,6 minutes (2,1 minutes during 2002/2003).

The flour from this area gave the brightest average colour of -1,2 KJ units. The relationship between protein content and bread volume was excellent. The farinograph water absorption averaged 61,7 % (64,4 % during 2002/2003), development time 3,6 minutes (4,0 minutes the previous season) and stability 5,1 minutes (4,7 minutes the previous season).

The alveogram strength was on average the lowest (32,6 cm<sup>2</sup>) of the four production areas discussed. The strength increased from grade 4 wheat (27,8 cm<sup>2</sup>) to grade 1 wheat (38,0 cm<sup>2</sup>).