

REGIONAL QUALITY

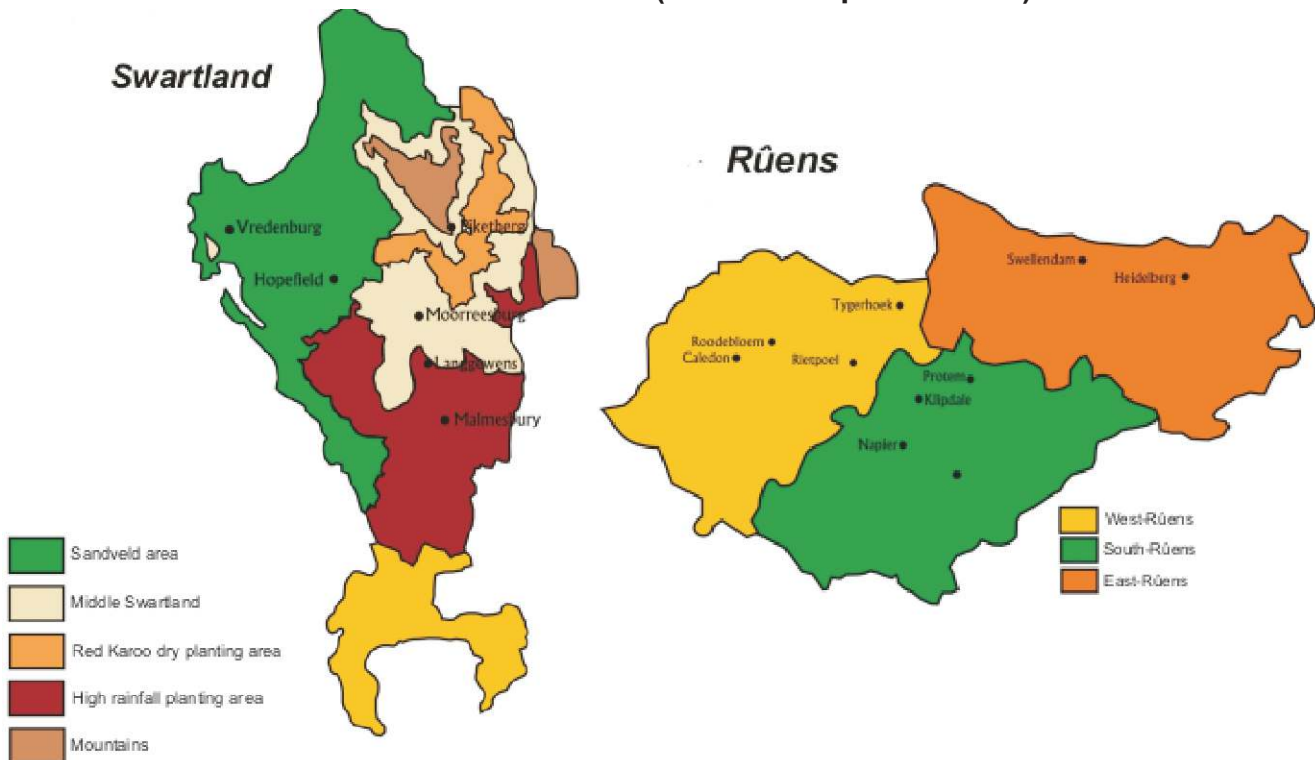
WINTER RAINFALL AREA (Western Cape)

Production regions 1 to 7 fall within the winter rainfall area, regions 1 to 6 are the southern and western Western Cape province and region 7 is the southern coastal areas of the Eastern Cape province.

The hectolitre mass averaged 77.6 kg/hl and is the same as the previous year (77.5 kg/hl). The thousand kernel mass averaged 34.7 gram, which is better than the previous year's 32.4 gram. Two samples from Napier in production region number 5 had falling numbers below 250 seconds. The average falling number was 371 seconds.

The protein averaged 12.72 % (12 % mb) and is 0.74 % higher than the previous year (11.98 %). The Ruëns had a normal crop while the Swartland was drought-stricken. The drought in the Swartland resulted in poor yield as well as poor quality wheat. The average protein in the Swartland was 13.1 % (12.6 % the previous year) and the average protein in the Ruëns was 11.9 % (10.8 % in 2003/2004). Only one sample was received from the Eastern Cape (production region 7) and had a protein of 11.75 %. The hectolitre mass of the Ruëns and Swartland was 77.78 kg/hl and 77.54 kg/hl respectively.

Winter Rainfall Area (Western Cape Province)



The screenings of 1.63 % were much lower than the previous season's 2.47 %. The screenings in the Swartland averaged 1.34 % and that of the Ruëns 2.27 %. The Bühler extraction averaged 74.3 % (average of wheat grades B1 to B4) and the average colour of the flour was -1.2 KJ units. Both these characteristics were better than those of the wheat of the Free State, but not as good as those of the wheat from the Other Rainfall areas and the Vaal and Orange River irrigation wheat.

The dough quality was the same as the previous year. The mixogram peak time (Quadromat mill) averaged 2.8 minutes. The average farinogram absorption was 60.0 %. The average strength of the alveogram was 37.0 cm² (Free State area was 49.0 cm²) and the average strength of the extensogram was 105 cm², which is average to the other production regions but weaker than the wheat from the Free State (139 cm²).

SUMMER RAINFALL AREA (Free State)

Production regions 21 to 28 fall within the Free State province, which had the highest production of all the provinces, namely 525 000 tons (CEC).

The physical characteristics such as hectolitre mass (76.3 kg/hl), thousand kernel mass (32.0 gram) and screenings (2.17%) were more or less the same as in the previous year.

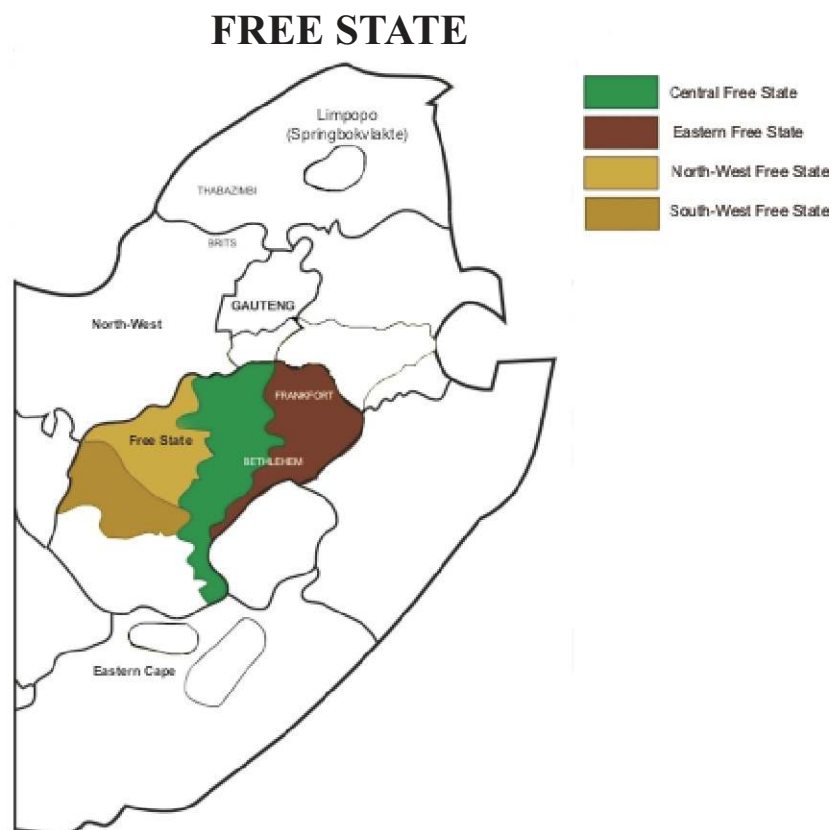
The average protein content was 14.59 % (12 % mb), which is 0.65 % higher than the previous year's 13.94 %. The Free State, except for the southern Free State, experienced a drought because of the absence of spring rain. Although the southern Free State had rain in the beginning of August, the average protein was 14.0 % (12 % mb) and the average hectolitre mass was 76.2 kg/hl. This does not differ significantly from the central Free State, with an average of 14.75 % protein and 76.2 kg/hl mass, eastern Free State with an average of 14.93 % protein and 76.2 kg/hl mass and the north-west Free State with an average of 14.34 % protein and 76.7 kg/hl mass. The eastern Free State experienced the worst conditions.

The mixogram (Quadromat) peak time increased by 0.4 minutes to 3.3 minutes, giving the Free State the longest average mixogram peak time of the different regional qualities.

The average Bühler extraction percentage was the lowest of the regions, namely 73.6 %. The Kent Jones colour was -0.6 KJ units, which is darker than the averages of the other regions.

The average farinogram water absorption was a good 61.7 %, beating the other regions by about 1 %. The wheat from the Free State tends to give a stronger dough than the other regions, with a farinogram development time of 6.4 minutes, alveogram strength of 49.0 cm², and an extensogram strength of 139 cm².

The 100-gram baking test showed that the relationship between protein content and bread volume was very good, but not as good as the wheat from the other regions.



SUMMER RAINFALL AREA (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 about 64 000 tons during this season. No samples were received from the Eastern Cape.

The average hectolitre mass was 79.3 kg/hl. This is the highest of the four regions being discussed. The thousand kernel mass was also the highest, i.e. an average of 39.3 g.

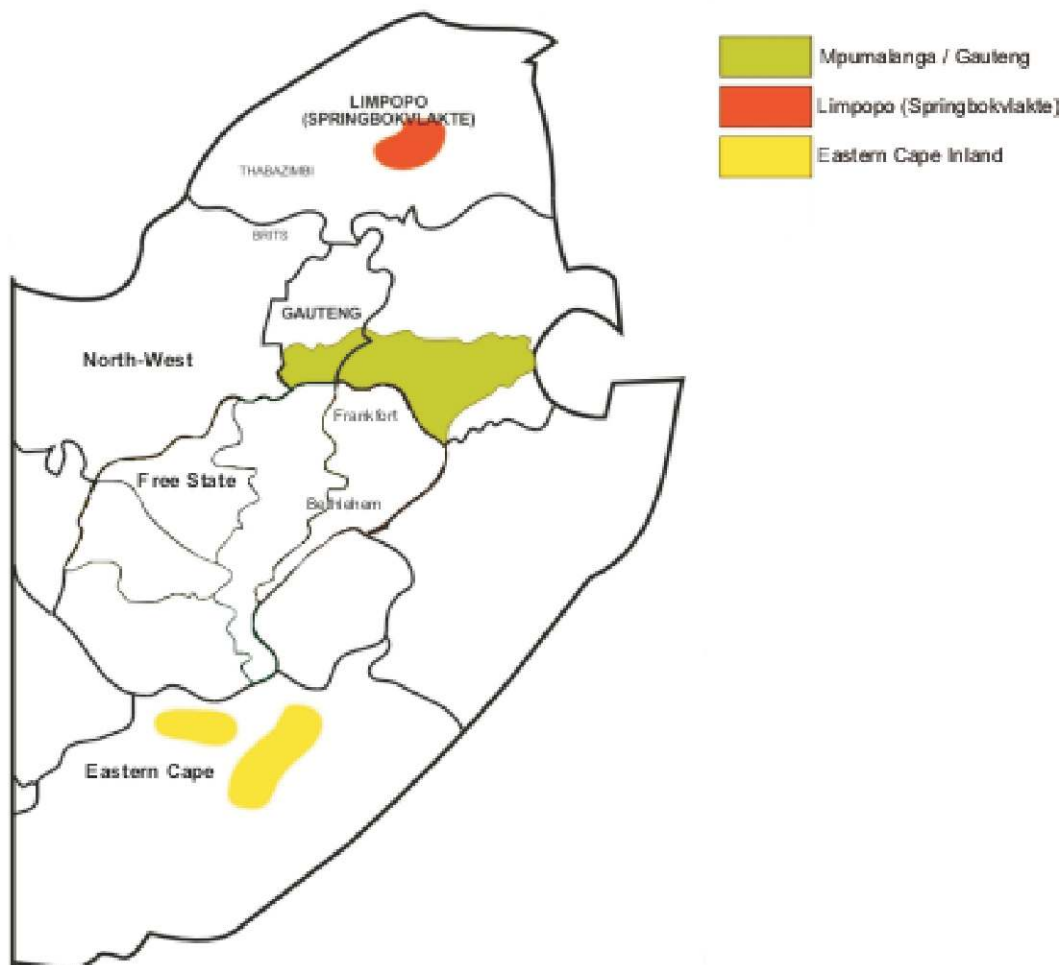
The average falling number was 389 seconds. The average percentage screenings were 1.91 %. The average protein content was 11.87 %.

The average mixogram (Quadromat) peak time was the shortest of the four regions, namely 2.6 minutes.

The average Bühler extraction was 75.6 %, with an average colour of -1.5 KJ units. The farinogram had a good average water absorption of 61.6 % and an average development time of 4.5 minutes.

The average alveogram strength was 37.1 cm², with an average P/L value of 0.69, and the average extensogram strength was 109 cm².

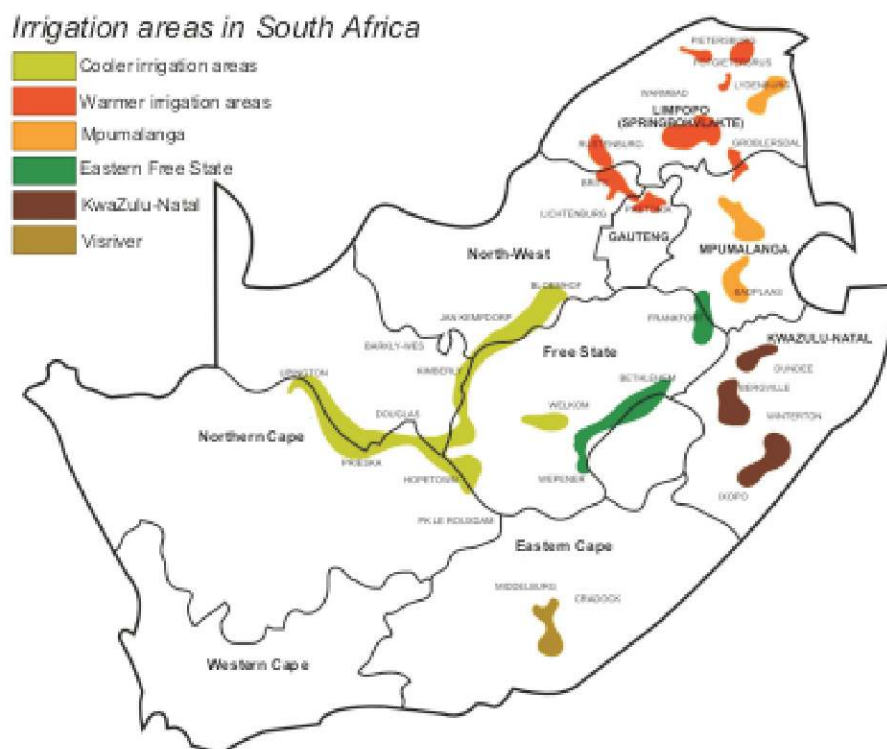
The 100-gram baking test showed a good relationship between protein content and bread volume.



(Regional maps kindly provided by the Small Grains Institute, ARC)

IRRIGATION AREAS

(Vaal and Orange River plus other irrigation areas. See map.)



The average hectolitre mass was 78.9 kg/hl and the thousand kernel mass was 37.7 g. The average falling number was the highest, namely 398 seconds. The average screenings were relatively low (1.82 %) and the protein had a normal average of 11.78 % (12 % mb).

The average mixogram (Quadromat) peak time was 2.7 minutes.

The average Bühler extraction percentage was 75.4, with an average flour colour of -2.0 KJ units.

The average farinogram water absorption was below 60 %, namely 59.8 %, with an average farinogram development time of 4.3 minutes.

The average alveogram strength was 32.7 cm² and the average P/L was 0.59.

The average extensogram strength was 100 cm². The relationship between protein content and bread volume was shown to be excellent by the 100-gram baking test.

SUMMARY OF THESE FOUR REGIONS

Given the drought conditions in the Western Cape and Free State, the crop in these two areas yielded abnormal high proteins, especially in the Free State, and also gave the lowest average hectolitre mass.

The Free State produced on average stronger flour, with higher alveogram and extensogram strengths.

The dough quality of the winter rainfall area and the other summer rainfall areas (excluding the Free State) was very similar.

The irrigation wheat gave on average dough of a little weaker quality than the other areas.