Regional Quality Summary

Winter Rainfall Area

(Western Cape)

The Western Cape Province has a Mediterranean climate, characterised by cool, wet winters and hot dry summers. More than 80% of the rainfall occurs in winter between April and September, making the Western Cape a predominantly winter rainfall area. Arable land in this area covers approximately 1.5 million hectares, with winter cereals (wheat, barley, canola and oats) the major crops cultivated. This season, the Western Cape accounted for almost half of the wheat produced in South Africa. The Swartland (on the West Coast) and the Rûens (Southern Cape) are the main distinguishable geographic regions of the winter rainfall area.

These two separate wheat farming regions are divided into sub regions according to soil and climatic characteristics. The Swartland region is divided into four sub regions: High Rainfall, Middle Swartland, Koringberg and Sandveld. The Rûens region is divided into three sub regions namely the Western Rûens, Southern Rûens and Eastern Rûens.

The Rûens generally receives higher rainfall than the Swartland, but some areas of the Swartland have better, deeper soils. Wheat is generally planted from the second half of April until the middle of June and harvested during October and November.

The hectolitre mass averaged 79.8 kg/hl compared to the previous season's 79.2 kg/hl. The thousand kernel mass averaged 37.3 g, 2.8 g lower than the previous season and just above the national average of 37.0 g. The average falling number was 395 seconds, again the highest of the three production areas. The whole wheat protein content averaged 11.8% (12% mb), a 0.7% increase compared to the previous season.

The average percentage screenings of 1.78% was 0.35% higher than in the 2021/22 season. This season is the third consecutive season in which the Winter rainfall area's screening percentage is not the highest of the three production areas. The average mixogram peak time (Quadromat Junior mill) equalled the 3.1 minutes of the previous season. The Bühler extraction averaged 72.4% (average of wheat grades Super to Grade 3 and COW), compared to the 73.1% in 2021/22. The average Konica Minolta CM-5 L* value (indicating lightness) equalled the previous 93.97. This colour value indicate a white/light flour that is preferred by millers and bakers and which also compares well to previous seasons. The average ash content was 0.60%.

The flour protein content averaged 10.8%, slightly higher than the 10.6% of the previous season. The average wet and dry gluten values were 29.2% and 9.7% (14% mb). The gluten index average of 96 was the same as the previous season. The average farinogram absorption was 59.6% and the development time 4.8 minutes, the stability averaged 14.4 minutes. The average alveogram strength was 42.4 cm² (39.1 cm² previously) and the P/L value averaged 0.72. The average strength on the extensogram was 106 cm² compared to 91 cm² last season. The mixogram peak time on the Bühler milled flour averaged 3.0 minutes, compared to the 2.7 minutes in the previous season. The 100-gram baking test showed on average an excellent relationship between protein content and bread volume.

Summer Rainfall and Irrigation Area

(Free State)

The summer rainfall area (predominantly the Free State Province) is a major dryland wheat production region of South Africa. Considerable variation in precipitation, soil types and average temperature occurs from east to west. The Free State is therefore commonly divided into four distinct dryland wheat production regions, namely: the South Western Free State, North Western Free State, Central Free State and Eastern Free State.

Rainfall, particularly the distribution thereof through the growing season, is important for successful wheat production in the summer rainfall areas. Planting dates vary from early to late according to region and commences in May and continues until July. Harvesting takes place from late November/early December to January.

The average hectolitre mass was 79.0 kg/hl, the lowest average of the three production areas. The average in 2021/22 was 78.8 kg/hl. The thousand kernel mass of 35.9 g was 3.8 g lower than the previous season and still the lowest of the three areas. The average percentage screenings was 2.38%, the highest average of the different production areas. The average whole wheat protein content of 11.9% was 0.3% lower than in the previous season. The falling number averaged 307 seconds, again the lowest average of the three production areas.

The mixogram (Quadromat Junior) peak time of 3.7 minutes was slightly longer than the 3.5 minutes of the previous season. The national average was 3.3 minutes. The average Bühler extraction percentage in the Free State was 73.3% compared to this season's national average of 73.5%. The Konica Minolta CM-5 L* value of 93.50 equaled the 2021/22 season's value. The average ash content was 0.57% and the average flour protein content 0.3% lower than the previous season at 10.7%. The wet gluten content (14% mb) was 29.1%, the dry gluten 9.5% and the gluten index averaged 97.

The average farinogram water absorption of 59.4% showed a 0.9% decrease compared to the previous season's 60.3% but equaled the national average value. The development time averaged 5.6 minutes and the stability 11.5 minutes, compared to the 5.9 and 9.9 minutes respectively in 2021/22. The average alveogram strength of 39.7 cm² was almost 4 cm² lower than in the previous season, while the extensogram strength decreased by 5 cm² to 101 cm² compared to last season. The Bühler milled flour had an average mixograph peak time of 3.2 minutes, the same as in the previous season. The national average is 3.1 minutes this 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, Mpumalanga, Gauteng, Limpopo and KwaZulu-Natal)

The irrigation wheat production area of South Africa can generally be divided into four main geographic regions – the Cooler Central irrigation region in the Northern Cape, the Warmer Northern irrigation region in the North West, Limpopo and Gauteng provinces, the Highveld region in Mpumalanga and the Free State and lastly, the KwaZulu-Natal region.

Planting commences as early as the second half of May and continues until July depending on the region. Harvesting takes place from the end of October to December also depending on the specific region.

As in the previous season, the irrigation wheat had the highest weighted average hectolitre mass of the three production areas, namely 80.3 kg/hl. This value is however 1 kg/hl lower than in the 2021/22 season. The thousand kernel mass decreased by 3.8 g to 37.2 g. The average falling number was 344 seconds, 327 seconds in the previous season. The screenings averaged 1.15%, again the lowest of the three areas as observed in the previous five seasons.

The whole wheat protein content was on average 12.6% and similar to the 12.5% of the previous season. The flour protein content was 11.3%, equal to the previous season. The mixogram (Quadromat Junior) peak time averaged 3.4 minutes, similar to the previous season and the national average. The average Bühler extraction was 75.7%, again the highest of the three areas.

The dry colour L* value was 93.56, similar to the previous season. The ash content averaged 0.61%. The average wet and dry gluten values as well as the gluten index were 30.1%, 10.1% and 96 respectively, all equal to the previous season. The average farinogram water absorption was 59.2% (60.1% during the previous season), the development time and stability averaged 5.8 minutes and 11.8 minutes respectively.

Alveogram strength averaged 42.0 cm² and the P/L 0.49 (44.5 cm² and 0.62 respectively the previous season). The average extensogram strength was 119 cm², 8 cm² higher than last season. The mixogram peak time averaged 3.2 minutes. The relationship between protein content and 100 g bread volume was shown to be excellent.

Production area and climatic condition information were obtained from the ARC-Small Grain's National Small Grain Cultivar Evaluation Programme reports.