



# South African

## Commercial Wheat Quality of the 2021/2022 Season

### *Acknowledgements*

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- South African Grain Information Service (SAGIS) for providing supply and demand figures relating to wheat and wheat products.

### *Summary*

The 2021/22 season's commercial wheat crop, set at 2 285 000 tons, was the largest crop in 20 years and almost 8% higher than the previous season's crop, which was the largest since the 2008/09 season. A total area of 523 500 hectares was utilised for wheat production during the 2021/22 season and the average yield was 4.36 tons per hectare (Figures obtained from the CEC).

The whole wheat protein average of 11.9% decreased by 0.1% compared to the previous season. The percentage samples from this crop survey with a protein content equal or higher than 12.5% (minimum protein content for Super Grade) was 37% (42% and 64% during the previous two seasons respectively). The hectoliter mass averaged 79.9 kg/hl, an increase of 1 kg/hl compared to the previous two seasons. 5% of the samples reported values below the minimum requirement of 76 kg/hl for Super Grade, Grade 1 and Grade 2. The ten-year national average is 80.3 kg/hl.

The average falling number this season was 341 seconds. 11% (37) of the samples analysed gave falling number values below 250 seconds and of these 29 (almost 9%) were below 220 seconds. The average mixogram peak time was equal to the 3.2 minutes of the previous season. The ten-year average is 2.9 minutes.

### *Introduction*

This report provides the results of the twenty-fourth annual wheat crop quality survey performed by the Southern African Grain Laboratory NPC (SAGL).

SAGL was established in 1997 on request of the Grain Industry. SAGL is an ISO 17025 accredited testing laboratory and participates in a number of proficiency testing schemes, both nationally and internationally as part of our ongoing quality assurance procedures to demonstrate technical competency and international comparability.

During the harvesting season (October to December for the southern production regions and November to January for the northern production regions), a representative sample of each delivery of wheat was taken according to the prescribed wheat regulation by the commercial grain storage companies.

A sub-sample of each of these grading samples was collected in a container according to class and grade per silo bin/bag/bunker/dam at each depot. This composite sample was then divided and a 3 kg sample was forwarded to SAGL for the annual wheat crop quality survey. SAGL analysed 335 samples to provide as best possible a proportional representation of the production of wheat in all the different production regions.

The samples were graded and the thousand kernel mass determined. Sub-samples were milled on a Quadromat Junior mill for mixograph analyses. Composite samples per class and grade for each production region, 65 samples in total, were milled on a Bühler MLU 202 laboratory mill. Moisture, protein, ash and colour determinations were done and RVA analyses conducted. Rheological analyses, namely gluten, mixogram, farinogram, alveogram, extensogram and 100-gram baking tests, were then performed. Multi-mycotoxin