

# South African COMMERCIAL WHEAT QUALITY FOR THE 2016/2017 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 commercial wheat crop of the 2016/2017 season was set at 1.910 million tons which is 470 000 tons (32.6%) higher than the previous season's crop. A total area of 508 365 hectares was utilized for wheat production and the average yield was 3.76 tons per hectare (Figures obtained from the CEC).

The whole wheat protein average of 12.0% decreased by 0.8% compared to the previous season, the ten year national average is 11.8%. The percentage of samples having protein contents higher than 12.0% decreased from 68.2% last season to 47.8%, in the 2014/2015 season the percentage was 45.5%. The average hectolitre mass was 81.5 kg/hl, slightly higher than the 81.1 kg/hl of the 2015/2016 season. The hectoliter mass of only 3.9% of the samples was below the minimum Grade 1 requirement of 77 kg/hl.

The average falling number this season was 356 seconds. Four of the samples analysed gave falling number values below 250 seconds and of these two were below 220 seconds. The average mixogram peak time of 2.7 minutes was equal to the previous season and lower than the ten year average of 2.9 minutes.

## Introduction

This report provides the results of the nineteenth 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.

A sub-sample of each of these grading samples was collected in a bin according to grade and class per silo bin at each silo. This composite bin sample was then divided and a 3 kg sample was sent to SAGL for the annual wheat crop quality survey. SAGL analysed 337 samples to provide as best possible a proportional representation of the production of wheat in all the different production regions.

Cultivar identification was performed on these samples and sales figures of seed sold by the commercial grain silo owners were requested. The samples were graded and the thousand kernel mass determined. Sub-samples were milled on a Quadromat Junior mill for mixograph analyses.

Composite samples were made up per class and grade for each production region and milled on a Bühler MLU 202 laboratory mill. Moisture, protein, ash and colour were determined and RVA analyses conducted. Rheological tests, namely gluten, mixogram, farinogram, alveogram, extensogram and 100-gram baking tests, were then performed.