

AFGRI Grain Management

A division of AFGRI Agri Services Proprietary Limited

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AFGRI Grain Management physical loss deduction on grain revised:

Dear Stakeholder,

During the past decade, the increase in production of cereals and grains focusing on increased yield per hectare as well as fast growing varieties to make maximum use of short rainfall periods, have resulted in cultivars often producing seeds that are perceived to be softer and therefore less robust during handling and storage. Upon receipt, handling and movement of grain, breakage occurs, and a physical loss is realized in the form of broken grains. There has been a perception amongst grain handlers that in recent years, the percentage of broken grains is increasing in the dockage fractions and during handling (transfer to, in and from silos, transfer to processors etc).

AFGRI contacted SAGL (The Southern African Grain Laboratories) about the perception and impact on AFGRI. The question was raised as to whether the current physical loss deduction for handling (breakage or dockage) and moisture loss during storage is still valid. The discussion also focused on whether the SAGL crop quality data over many seasons may reveal any gradual changes in quality traits such as Milling Index or stress cracks (white and yellow maize) and any other physical or grading changes (for example hectolitre mass) that can be seen for crops such as maize, sorghum, wheat, soybeans and sunflower which may point towards an increased tendency for the grain to break during handling and moisture loss.

The SAGL have been conducting annual National crop quality surveys since the 1998/1999 season. Initially the focus was only on maize and wheat as the major staple crops but as the project continued to grow, crops such as soybeans, sorghum and sunflower have been added in later years. These quality tests consist of a battery of traits measured which are tailored for each crop and approved by Industry. Samples taken from silo points in the various regions in each province are received annually by the SAGL. These regions are identified by their unique number representing a certain area with a specific collection point. The SAGL conducts these surveys nationwide and the results are annually published to be available in the public domain since it is funded by the Agricultural Trusts.

The data being collected over the years contains a wealth of information and is unique in the world as it allows for trend analyses and data mining because of its large size with many samples collected over many years and regions. AFGRI approached SAGL with a request to analyse in more detail the data relevant to the AFGRI production regions and to evaluate possible trends that will explain increases in grain breakage susceptibility in combination with AFGRI's own data collected over time by their Ronin ART Inventory Management System.

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Based on the outcome of SAGL data mining and AFGRI's own data, AFGRI made the decision to increase the percentage physical loss deduction as follow:

Grain	Current percentage	Revised percentage	Implementation date
Maize	0,75%	0,97%	1 May 2021
Sorghum	1,50%	1,75%	1 May 2021
Soya bean	0,30%	0,47%	1 March 2021



Jerry Maritz
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