

18 August 2016

Agbiz Grain Mini Symposium

Some 120 delegates attended the Agbiz Grain Mini Symposium at the Centurion Country Club on Wednesday 10 August. This industry-wide event brought a wide range of role players together to discuss issues of importance in grain handling and storage. This year's theme was TRIPLE BOTTOM LINE: People, Profit, Planet.

Some of the highlights of the day included the following:

- An overview of grain imports and exports over the last season (May 2015 to April 2016) focused on volumes and trading partners. Information regarding commodity movements per province within South Africa illustrated the transport of crops being imported as well as from local production areas to processing sites. The presentation also included valuable information about infrastructure at the harbours.
- A presentation on a choice of four possible methods to calculate the value of silo structures as well as municipal valuations resulted in much discussion amongst the owners of storage facilities. Current methods are: comparable sales method of valuation; income capitalization method of valuation; discounted cash flow method of valuation and depreciated replacement cost method of valuation.
- The development of a Crop Condition Assessment by SA National Space Agency and Airbus will provide an early warning system for crop monitoring as well as damage/stress assessment in plants before it becomes visible to the naked eye. The use of remote sensing to determine the extent and degree of damage to crops while still on the land and can lead to risk management for micro insurance. Further uses of the system are crop area estimation, crop condition monitoring, crop yield estimation/forecasting and crop type identification and mapping. Various end-users are envisaged.
- Information about climate change and the resultant shift in crop areas depicted what changes can be expected for grain production in future. Current crop suitability maps used are based on environmental criteria only. As climate changes, the following may occur:
 - *New cultivars*: Development of new cultivars could make it possible to plant in higher temperatures, which would change the production areas correspondingly.
 - *Plant diseases*: Climate change will affect the fecundity, dispersal and distribution of plant diseases and pests. Higher temperatures will increase overwintering of pathogens and pests, modify host susceptibility to infection, accelerate pathogen and vector life cycles and increase the sporulation and infectiousness of fungi.
 - *Effect of increased CO₂*: Increased CO₂ levels are likely to have a positive effect on potential water use efficiency and crop productivity. Crops such as potato, cotton, wheat, and soybeans benefit substantially from additional atmospheric CO₂, while crops such as maize, sorghum and sugarcane are more limited.
- Climate change and climate variability were discussed. Long term forecasting of climate and rainfall was demonstrated as well as the importance of using appropriate data in crop

modelling. A major problem for South African researchers, is that weather stations are often not located where the crops are. Current limitations of climate data for crop modelling are spatial representation (linking the rainfall data to the fields); missing rainfall data; no measured temperature (Min and Max) data; and no measured solar radiation data.

All the presentations that were made, are now available on the Agbiz Grain website at <http://agbizgrain.co.za/en/information/mini-symposium-2016>. If you would like to make contact with any of the speakers to pursue further information or discussions, kindly call us for their details.

ENQUIRIES

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