

- milling, 350 µg/kg.
- Maize intended for direct human consumption, maize-based snacks and maize-based breakfast cereals, 100 µg/kg.
- Processed maize-based foods for infants and young children, 20 µg/kg.
- Milling fractions and other milling products with particle size > 500 µm not used for direct human consumption, 200 µg/kg.
- Milling fractions and other milling products with particle size ≤ 500 µm not used for direct human consumption, 300 µg/kg.

In the USA, specified maximum levels for Fumonisin in maize and maize by-products used in animal feeds varies between 5 000 and 100 000 µg/kg based on the particular type of animal. Maximum levels in the final animal feed varies between 1 000 and 50 000 µg/kg, also depending on the type of animal. Suggested levels for DON in animal feed varies between 5 000 and 10 000 µg/kg in grains and grain by-products and between 1 000 and 5 000 µg/kg in final feeds depending on the category of animal.

2.7 Genetic Modification (GM)

The SAGL screened 77 (11 %) of the crop samples to test for the presence of Cry1Ab (based on MON810 which is a *Bt* maize event) and CP4 EPSPS (Roundup Ready).

The crop quality samples received by the SAGL are composite samples per class and grade, made up of individual deliveries to grain silos.

SAGL used the EnviroLogix QuickComb kit for bulk grain to quantitatively determine the presence of genetically modified maize.

The limit of detection for the Cry1Ab trait is 0.8 % and the detection range 0.4 % to 5 %. 97 % of the

samples tested positive for Cry1Ab with values larger than 0.4 % (Limit of quantification (LOQ)).

The limit of detection for the CP4 EPSPS trait is 0.5 % and the detection range 0.25 % to 5 %. 88 % of the samples tested positive for CP4 EPSPS with values larger than 0.25 % (LOQ).

Values higher than 5 %, the highest value of the detection range for both traits, are reported as > 5 %.

3. Production regions

The RSA is divided into 36 grain production regions. Regions 1 to 9 are winter rainfall areas (Western Cape), as well as the Eastern Cape and Karoo where very little commercial maize is being produced.

Region 10 is Griqualand West and region 11 Vaalharts. Region 34 falls within Gauteng, region 35 within the Limpopo Province and region 36 within KwaZulu-Natal.

The main production regions are:

- Regions 12 to 20 which are all within the North West province,
- Regions 21 to 28 in the Free State,
- Regions 29 to 33 in Mpumalanga.

The contribution of the three main production areas was as follows:

- The Free State contributed 39 % of which 64 % was white maize and 36 % yellow maize.
- North West contributed 23 % of which 78 % was white maize and 22 % yellow maize.
- Mpumalanga contributed 21 %. Yellow maize contributed 59 % compared to the 41 % of white maize.

South African Provinces

