

South African COMMERCIAL MAIZE QUALITY



Acknowledgments

2015/2016

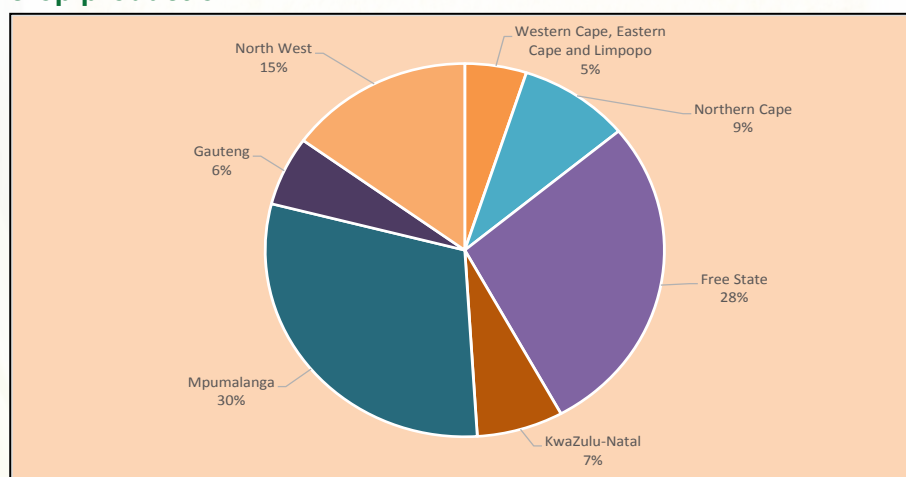
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Introduction

During the harvesting season (April to August 2016), a representative sample of each delivery of maize at the various silos was taken according to the prescribed grading regulations. The sampling procedure for the samples used in this survey is described on page 89. A total of 920 composite samples, representing white and yellow maize of each production region, were received and analysed for quality. The samples consisted of 415 white and 505 yellow maize samples.

Graph 1: Contribution of the nine provinces to the 2015/2016 maize crop production



Figures provided by the CEC.

The quality attributes which were tested for, include:

1. RSA grading: All samples were graded according to the following factors, as defined in the South African grading regulation: defective kernels above and below the 6.35 mm sieve, total defective kernels, foreign matter, other colour kernels, combined deviations and pinked kernels.
2. USA grading according to regulations on all samples to determine the following factors: Test weight per bushel (pounds), heat damaged kernels, total damaged kernels, broken corn and foreign matter (BCFM) and other colour.
3. Nutritional values (on all samples): Crude protein, crude fat and starch.
4. Physical Quality factors (on all samples): Test weight (kg/hl), 100 kernel mass, kernel size, breakage susceptibility, stress cracks and milling index.
5. All white maize samples were milled on the Roff laboratory mill and the whiteness index of the maize meal determined.