

# South African

## COMMERCIAL MAIZE QUALITY 2016/2017



### Acknowledgments

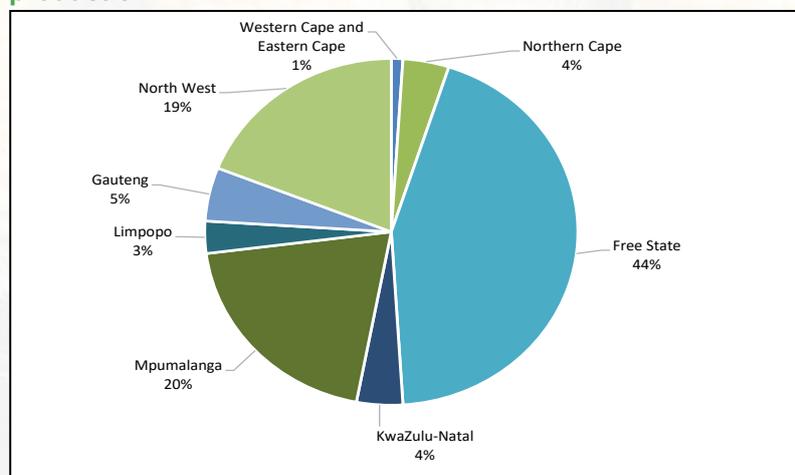
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- The Bureau for Food and Agricultural Policy (BFAP) for providing research based market analysis.
- South African Weather Service for providing seasonal climate watch and rainfall information.

### Introduction

During the harvesting season (April to August 2017), a representative sample of each delivery of maize at the various silos was taken according to the prescribed grading regulation. The sampling procedure for the samples used in this survey is described on page 92. A total of 1 000 composite samples, representing white and yellow maize of each production region, were received and analysed for quality. The samples consisted of 549 white and 451 yellow maize samples.

**Graph 1: Contribution of the nine provinces to the 2016/2017 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 regulation 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): Moisture, 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, milling index and grit yield all.
5. All white maize samples were milled on the Roff laboratory mill and the whiteness index of the maize meal determined.