

# South African

Commercial Maize Quality for the 2022/2023 season

## Acknowledgments

With gratitude to:

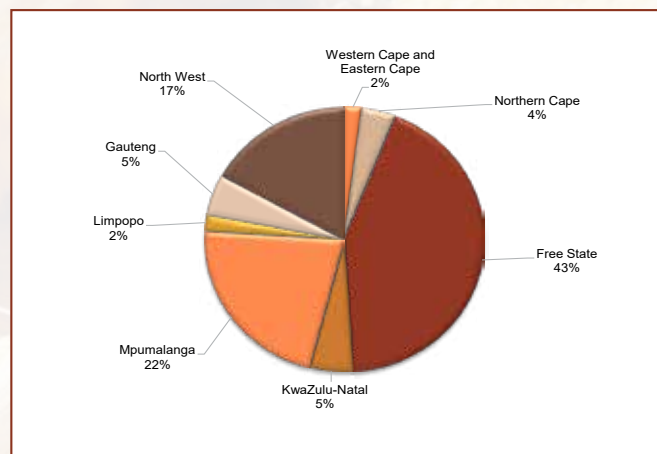
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## Introduction

During the 2023 harvesting season, a representative sample of each delivery of maize at the various grain intake points was taken according to the prescribed grading regulation. The sampling procedure for the samples used in this survey is described on page 102. A total of 1 000 composite samples, representing white and yellow maize of each production region, were received and analysed to determine the quality. The samples consisted of 520 white and 480 yellow maize samples.

**Graph 1: Provincial contribution to the production of the 2022/23 maize crop**



Figures provided by the CEC.

The quality attributes tested, include:

**RSA grading:** 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.

**USA grading:** Samples were graded according to the American grading regulations 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.

**Nutritional values:** Moisture, crude protein, crude fat, crude fibre and starch.

**Physical quality factors:** Test weight (kg/hl), 100 kernel mass, kernel size, breakage susceptibility, stress cracks, milling index and grit yield.

All white maize samples were milled on the Roff laboratory mill and the whiteness index of the maize meal determined.

Mycotoxin analyses were performed on 350 samples representative of white and yellow maize produced per region.