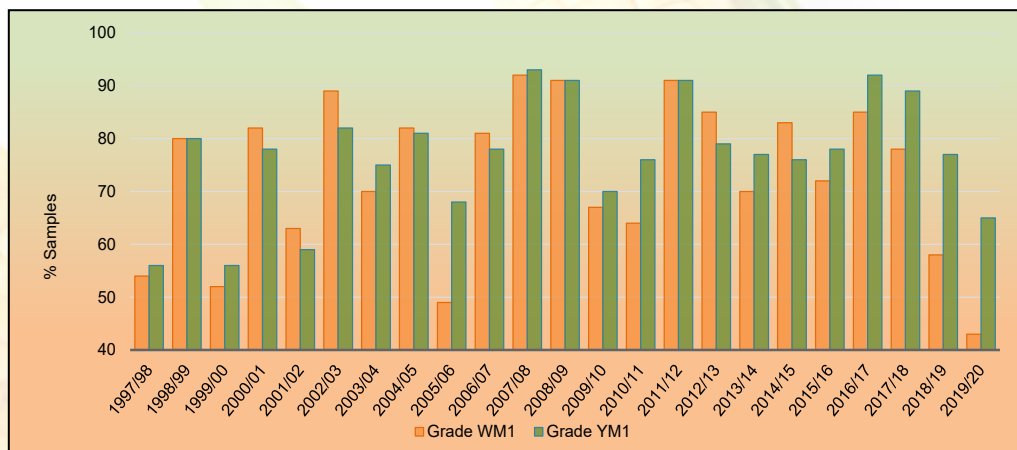


# Maize Crop Quality 2019/20 - summary of results

## RSA Grading

The maize crop, although the second largest in history, was of below average quality for the second consecutive season. Only 43% of white maize was graded as maize grade one, last season this figure was 58%. 65% of yellow maize was graded as grade one, compared to the 77% of the previous season. Please see Graph 33 for the percentages of samples (white and yellow) per season graded as grade 1, since commencement of the annual maize crop quality survey in 1998.

Graph 33: Percentage samples graded as Grade 1 over seasons



The percentage total defective kernels above and below the 6.35 mm sieve, 10.1% for white and 6.6% for yellow maize, was respectively 1.4% and 1.2% higher than the previous season. Defective white maize kernels above the 6.35 mm sieve made the largest contribution to the increase in the percentage total defective kernels, increasing from 6.8% last season to 8.1% this season. The percentage defective kernels below the 6.35 mm sieve for white maize increased from 1.8% to 2.0% and that of yellow maize from 1.7% to 2.3%. The average percentage Diplodia infected kernels in white maize decreased from 0.4% to 0% this season and in yellow maize from 0.9% to 0%. Fusarium infected kernels increased for both white and yellow maize compared to the previous season, from 0.3% in both white and yellow maize to 0.8% and 0.7% respectively.

The number of white maize samples that were downgraded to class other maize as a result of the percentage foreign matter exceeding 0.75%, increased from 23 samples to 38 samples this season. The number for yellow maize decreased from 18 samples to 14 samples this season. Two white and three yellow maize sample were downgraded as a result of other colour maize that exceeded 10% and 5% (maximum permissible deviation for grade 3) respectively. The average percentage combined deviations of white maize was 10.7% compared to the 9.3% of the 2018/19 season and that of yellow maize 6.9% compared to 5.7% previously.

Please refer to Tables 3 to 7 and Graphs 34 to 36 on pages 34 to 46.

## USA Grading

Of the 890 maize samples graded according to USA grading regulations, 30% were graded US1, 25% US2, 16% US3, 11% US4, 7% US5, while sample grade and class mixed corn represented 9% and 2% respectively. The percentage samples graded as US1 varies substantially over seasons, varying from 41% to 51%, 71%, 58% and 64% over the previous five seasons. The percentage samples graded as US2 compared well with the 27% and 29% of the previous two seasons respectively. The main reason for downgrading the samples was (as in previous seasons) the percentage total damaged kernels exceeding the maximum limit per grade, followed by broken corn and foreign material. Please see Tables 8 and 9 on pages 47 to 53.

## Physical Quality characteristics

Bushel weight/Test weight is applied as a grading factor in the USA grading regulations and is also routinely done at most intake points locally for stock verification purposes. White maize had an average test weight of 75.6 kg/hl compared to the 76.3 kg/hl of yellow maize. White and yellow maize's average test weight was respectively 0.3 kg/hl and 0.6 kg/hl lower than in the previous season. The test weight in total varied from 63.4 kg/hl to 82.4 kg/hl.