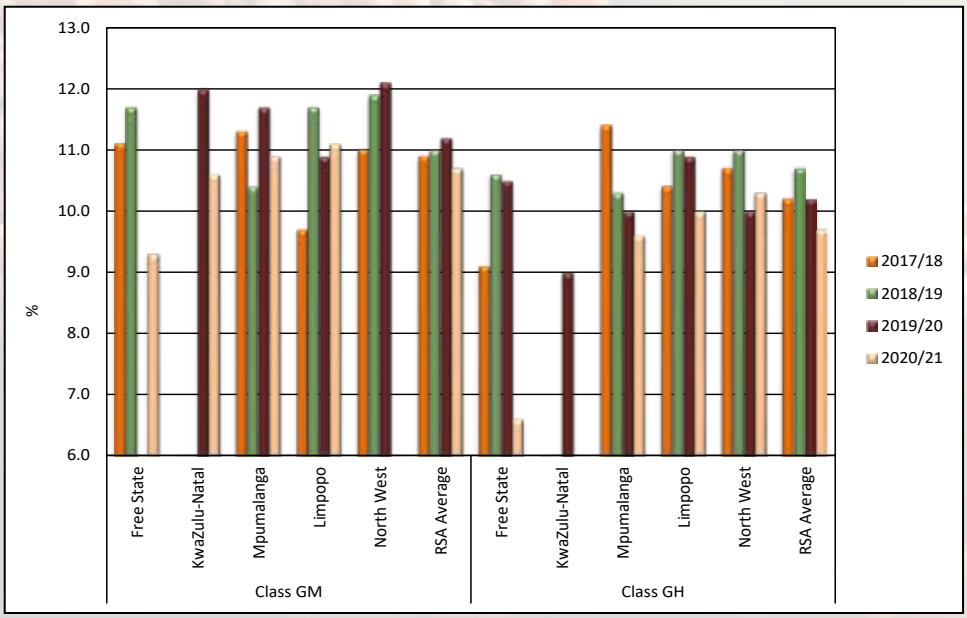
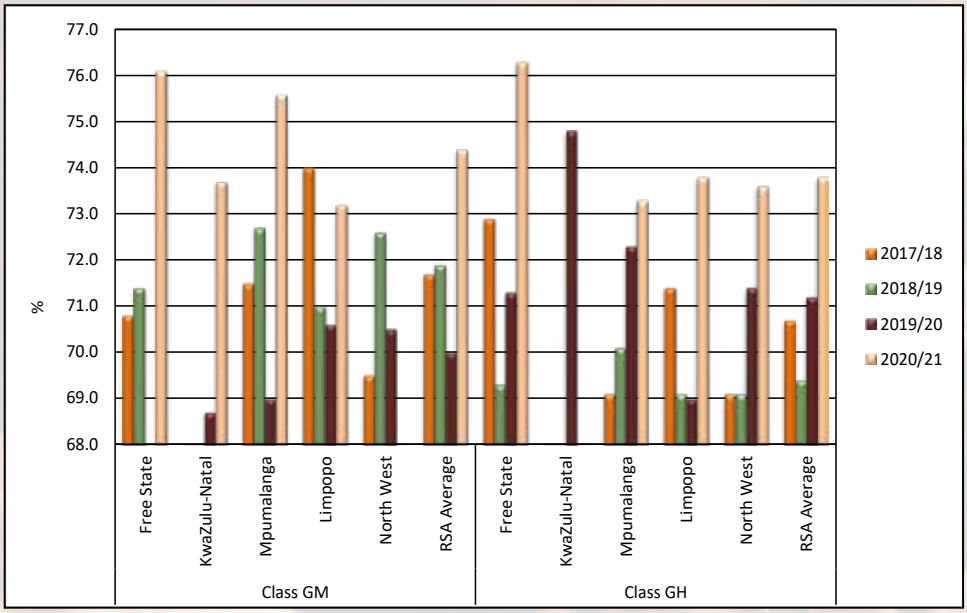
The crude protein and total starch contents of the samples were calculated and reported on a dry basis. Limpopo had the highest protein average of 11.1% for GM sorghum, while the Free State averaged the lowest with 9.3%. North West had the highest average for GH sorghum with 10.3% and the Free State again averaged the lowest with 6.6%. Nationally, GM and GH sorghum averaged 10.7% and 9.7% respectively. The highest average total starch content for GM sorghum was reported in the Free State (76.1%) and the lowest (73.2%) in Limpopo. The highest average total starch content for GH sorghum, namely 76.3%, was reported in the Free State as with GM sorghum. The weighted total starch content of GM sorghum was 74.4% and that of GH sorghum 73.8%. In the 2019/20 season, these values were 70.0 % and 71.2% respectively. Please see Graphs 20 and 21.

Graph 20: Average percentage crude protein per class per province



Graph 21: Average percentage total starch per class per province



Hunterlab colour determinations were done on a milled fraction of dehulled sample above the 1.8 mm slotted sieve. The Hunterlab spectrophotometer separates the components of reflected color into a three-dimensional colour scale, namely the Hunter L, a, b scale where L represents lightness (100 being white and 0 being black), a represents green to red variation and b represents variation from blue to yellow.

Please see Graphs 22 to 27 for a comparison of the ranges in the L, a, b values obtained on GM and GH sorghum over four seasons. The minimum and maximum values are based on a single composite sample's result in a specific season.