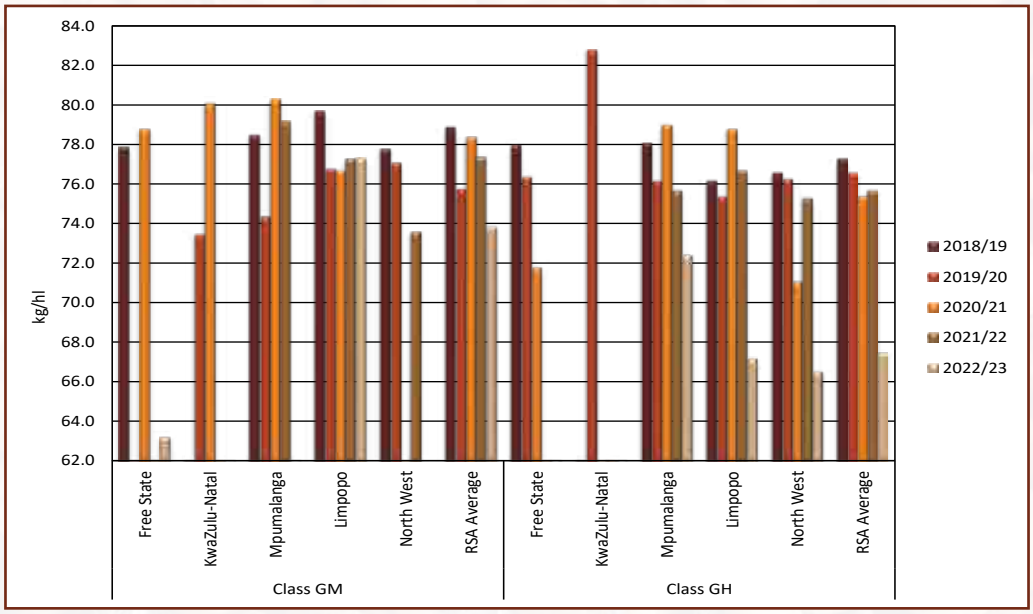
Graph 19: Average test weight per class per province over five seasons




The image analysis results showed that the GM sorghum on average had slightly longer kernels, while the kernel width was similar for GM and GH sorghum. The variation (indicated by the standard deviation) in these parameters is similar for both GM and GH sorghum. Kernel elongation, defined as W/L% (width divided by length, expressed as a percentage) showed a wider variation as the length and width parameters as can be expected, with average standard deviations of 5.3% for GM and 4.6% for GH sorghum. A totally round kernel will have a W/L% of 100. GM sorghum's volume to surface ratio was over the last five seasons on average 3.5% higher than that of GH sorghum.

As shown in Graph 20, North West had the highest protein average of 12.2% for GM sorghum, while Limpopo averaged the lowest with 9.0%. North West also had the highest protein average for GH sorghum namely 11.0%. Limpopo also had the lowest GH average namely 9.0%. Nationally, GM and GH sorghum averaged 9.7% and 10.6% respectively. Graph 21 shows that the highest average total starch content for GM sorghum was reported in Limpopo (76.1%) and the lowest (66.6%) in North West. The highest total starch content for GH sorghum, namely 71.1%, was reported in Mpumalanga and the lowest 69.8% in Limpopo. The weighted total starch content of GM sorghum was 74.0% and that of GH sorghum 70.9%.

Graph 20: Average percentage crude protein per class per province over five seasons