

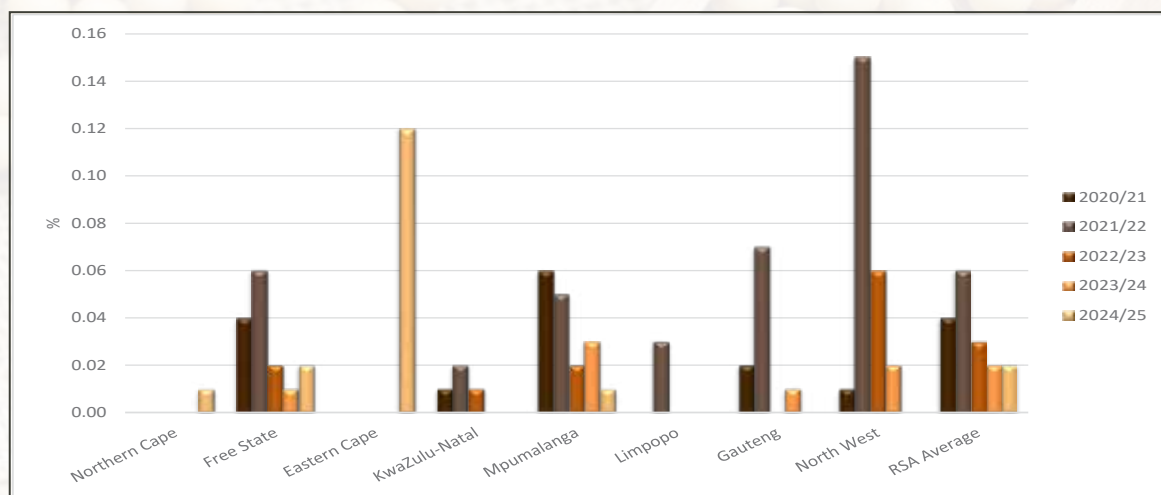
## Soybean Crop Quality 2024/25 – Summary of results

Eighty-four percent (211) of the 250 samples analysed for the purpose of this survey were graded as Grade SB1, while 39 (16%) of the samples were downgraded to COSB (Class Other Soya Beans). During the previous two seasons, 18% (2023/24) and 17% (2022/23) of the samples were downgraded to COSB.

- Six of the 39 samples were downgraded as a result of the percentage other grain exceeding the maximum permissible deviation of 0.5%.
- Seven samples exceeded the maximum permissible deviation of 0.1% sunflower seed.
- Five samples exceeded the maximum permissible deviation of 10% defective soybeans on the 4.75 mm round hole screen.
- Nine samples exceeded the maximum permissible deviation of 10% soiled soybeans.
- Seven samples exceeded the maximum permissible number (1/1000 g) of *Crotolaria* sp. or *Datura* sp. poisonous seeds.
- Three samples were downgraded to Class Other due to a combination of two or more of the percentages foreign matter, other grain, sunflower seed and stones, as well as the number of poisonous seeds, exceeding the maximum permissible deviation.
- One sample was downgraded to Class Other as a result of the presence of live insects.

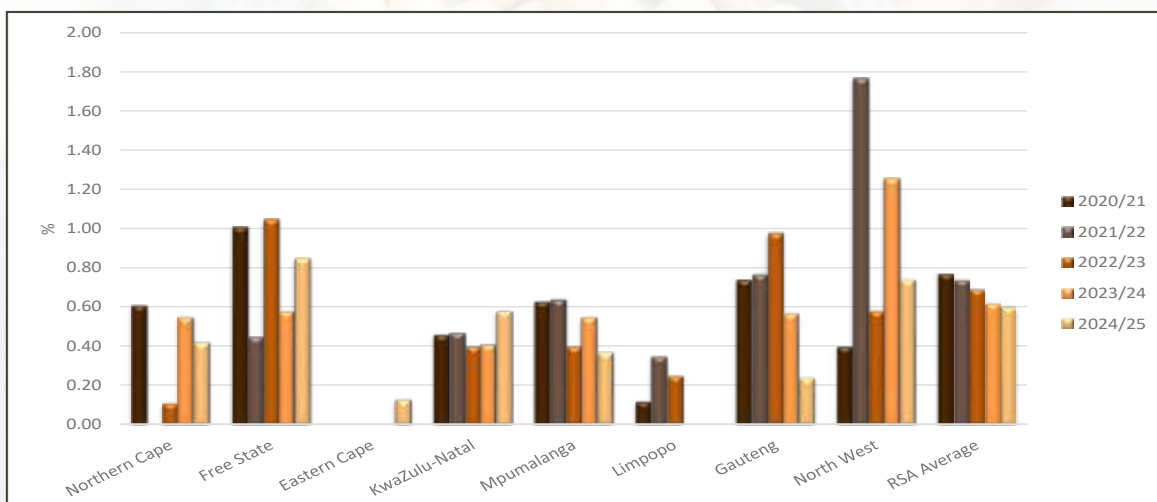
Twenty percent of the samples contained sclerotia from the fungus *Sclerotinia sclerotiorum*, compared to the 26% of the previous two seasons. 51% of the samples that contained sclerotia this season originated in Mpumalanga, 39% in the Free State, with single samples from the Eastern Cape, Northern Cape, North West and Gauteng.

As in previous years, sclerotia was present at very low levels in the samples received, ranging between 0.01% and 0.29%. The national weighted average percentage this season was 0.02%, equal to the previous season. The maximum permissible level of sclerotia is 4%. See Graph 16.



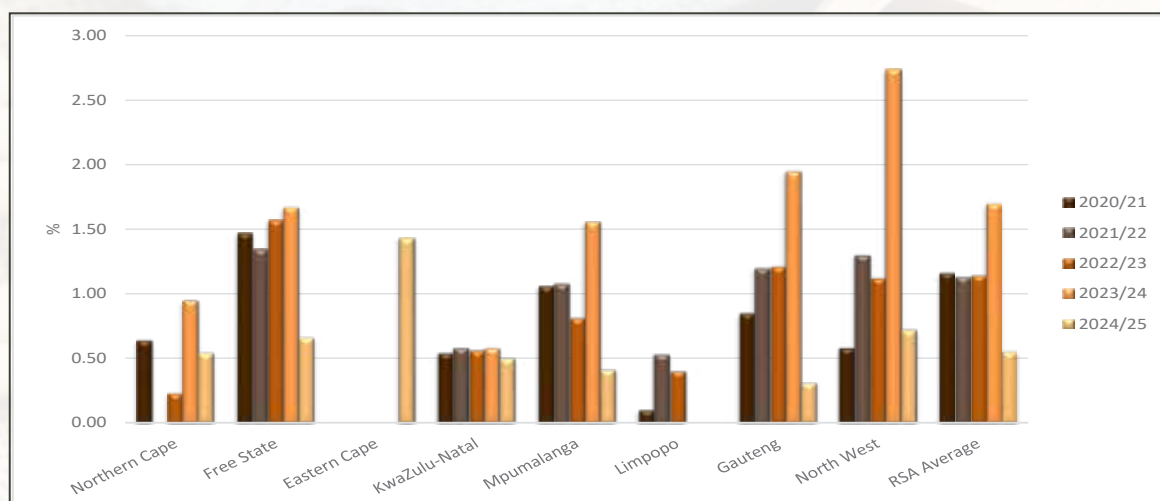
Graph 16: Average percentage sclerotia per province over five seasons

The 98 samples received from the Free State province had the highest weighted average percentage foreign matter (0.85%) and the sample from the Eastern Cape the lowest with 0.13%. North West (27 samples) averaged 0.74%. The weighted averages for Gauteng (11 samples), Mpumalanga (101 samples), the Northern Cape (5 samples) and KwaZulu-Natal (7 samples) ranged between 0.24% to 0.58%. The national weighted average of 0.60% was the lowest since the 2012/13 season. Please refer to Graph 17.



Graph 17: Average percentage foreign matter per province over five seasons

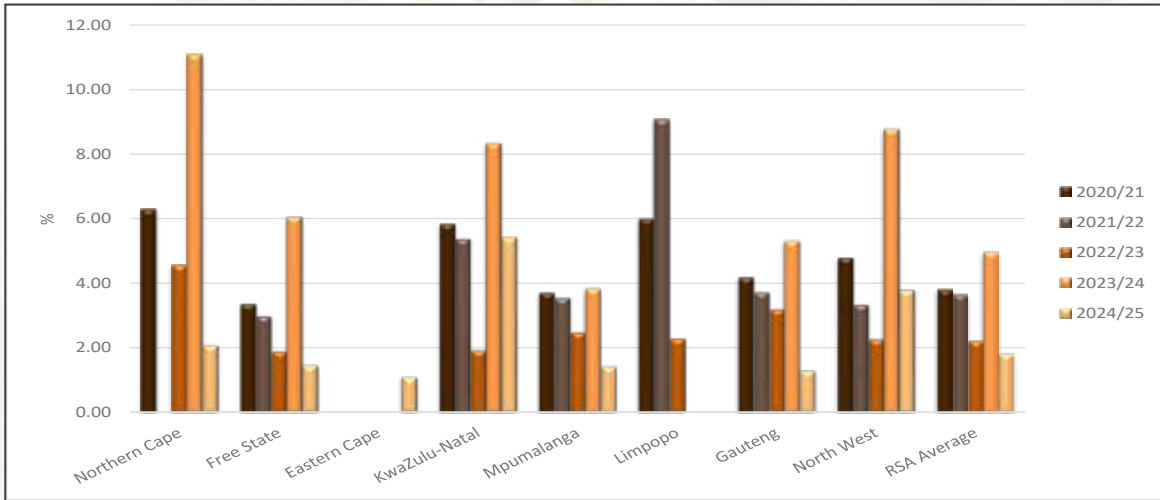
The sample from the Eastern Cape reported the highest weighted average percentage soybeans and parts of soybeans above the 1.8 mm slotted sieve which pass through the 4.75 mm round hole sieve, namely 1.43%, followed by 0.72% from North West and 0.66% from the Free State. The lowest weighted average value reported was 0.31% on the samples from Gauteng. The national weighted average percentage of 0.55% was the lowest since the start of this survey in the 2012/13 season. Please see Graph 18.



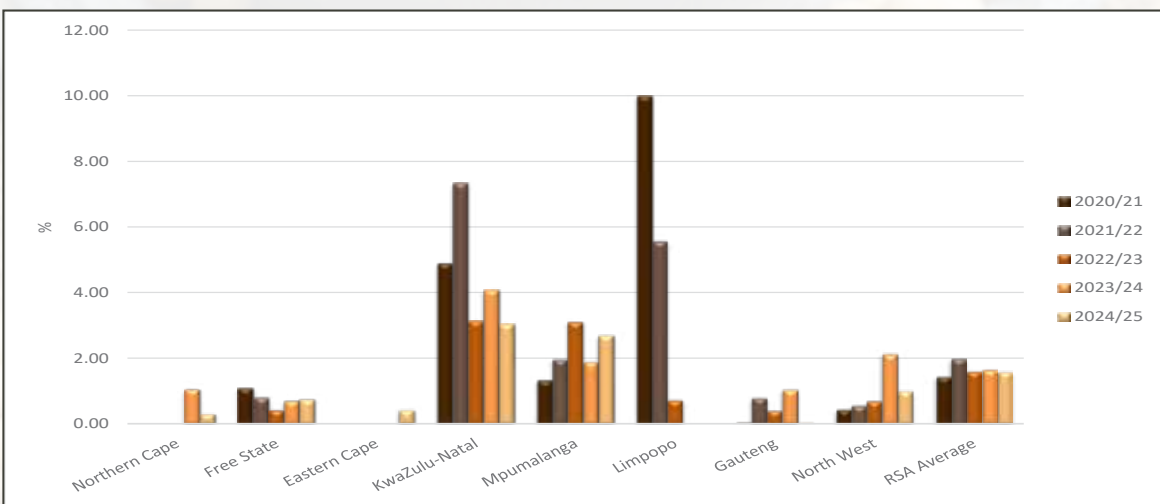
Graph 18: Average percentage soybeans and parts of soybeans above the 1.8 mm slotted sieve which pass through the 4.75 mm round hole sieve per province over five seasons

The highest weighted average percentages defective soybeans on the 4.75 mm sieve, was reported on the samples from KwaZulu-Natal (5.45%) followed by North West (3.80%) and the Northern Cape (2.09%). The lowest percentage, namely 1.11% was observed on the single sample from the Eastern Cape. The averages in the other provinces ranged from 1.31% to 1.47%. The national weighted average decreased from 4.98% last season to 1.83% this season. This is the lowest average reported since the 2013/14 season. Please see Graph 19.

The national weighted average percentage soiled soybeans was 1.58%. The previous two seasons averaged 1.64% and 1.58% respectively. The highest weighted average percentages were observed in KwaZulu-Natal (3.05%) and Mpumalanga (2.69%). Gauteng averaged the lowest with 0.03%. The remaining weighted averages ranged between 0.30% and 1.00%. Please see Graph 20. Forty-eight percent (121) of samples graded contained soiled soybeans, the percentage last season was 64. Nine samples exceeded the maximum permissible deviation of 10% according to the grading regulations, compared to 5 samples the previous two seasons. The majority of these samples originated in Mpumalanga. The highest percentage soiled soybeans (32.24%) reported, also originated in Mpumalanga. The other samples originated in North West and the Free State.



Graph 19: Average percentage defective soybeans on the 4.75 mm round hole sieve per province over five seasons



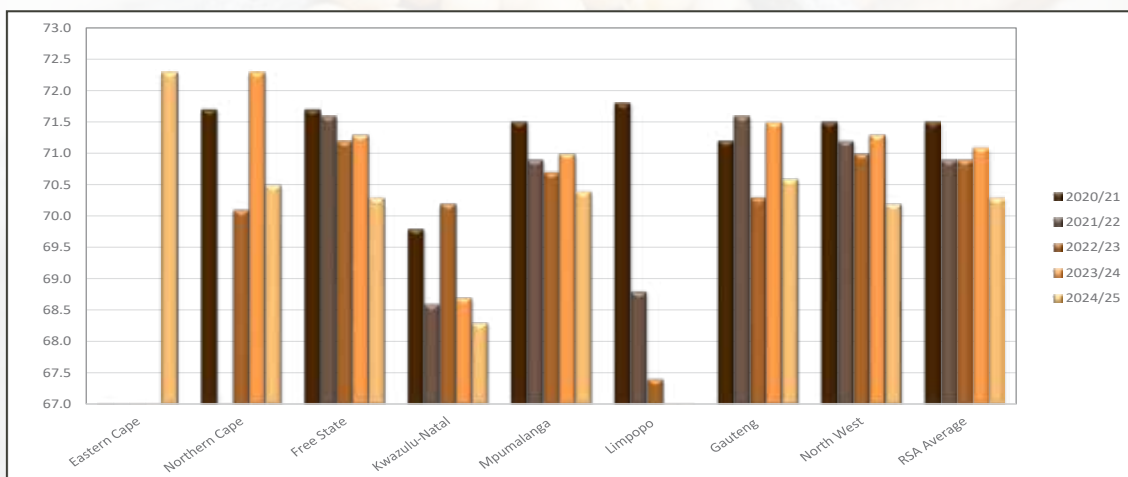
Graph 20: Average percentage soiled soybeans per province over five seasons

Test weight does not form part of the grading regulations for soybeans in South Africa. An approximation of the test weight of South African soybeans is provided in Table 2 for information purposes. The standard working procedure of the Kern 222 instrument, as described in ISO 7971-3:2019, was followed. The g/1 L filling mass of the soybean samples was determined and divided by two. The test weight was then extrapolated by means of the following formulas obtained from the Test Weight Conversion Chart for Soybean of the Canadian Grain Commission:  $y = 0.1898x + 2.2988$  (291 to 350 g/0.5 L) and  $y = 0.1895x + 2.3964$  (351 to 410 g/0.5 L). Please see Graph 21 for a comparison of the test weight per province over the last five seasons.

Table 2: Approximation of test weight per province over three seasons									
Province	Test weight, kg/hl								
	2024/25 Season			2023/24 Season			2022/23 Season		
	Weighted average	Range	No. of samples	Weighted average	Range	No. of samples	Weighted average	Range	No. of samples
Eastern Cape (Regions 7 - 8)	72.3	-	1						
Northern Cape (Regions 10 - 11)	70.5	69.1 - 71.7	5	72.3	-	1	70.1	70.0 - 70.2	2
Free State (Regions 21 - 28)	70.3	65.2 - 72.8	*97	71.3	68.4 - 74.2	44	71.2	64.3 - 73.2	*65
KwaZulu-Natal (Region 36)	68.3	67.3 - 70.0	7	68.7	68.2 - 69.4	3	70.2	69.0 - 72.1	9
Mpumalanga (Regions 29 - 33)	70.4	65.9 - 72.2	*100	71.0	68.3 - 73.0	**121	70.7	68.3 - 73.4	64
Limpopo (Region 35)	-	-	-	-	-	-	67.4	-	1
Gauteng (Region 34)	70.6	68.3 - 72.0	11	71.5	70.4 - 73.0	10	70.3	68.7 - 71.3	3
North West (Region 12 - 20)	70.2	64.6 - 72.1	27	71.3	66.5 - 73.1	19	71.0	68.6 - 72.8	29
<b>RSA</b>	<b>70.3</b>	<b>64.6 - 72.8</b>	<b>248</b>	<b>71.1</b>	<b>66.5 - 74.2</b>	<b>198</b>	<b>70.9</b>	<b>64.3 - 73.4</b>	<b>173</b>

\* One sample with an outlier value was not taken into account for calculation purposes.

\*\*Two samples with outlier values were not taken into account for calculation purposes.



Graph 21: Comparison of the test weight per province over five seasons

The nutritional component analyses, namely crude protein, - fat, - fibre and ash are reported on a dry/moisture-free basis (db) for the current as well as the previous surveys. For comparison purposes the national average 'as is' or wet basis results for the last five seasons are provided in Table 3. These 'as is' average values were calculated by converting each individual value from dry basis to 'as is'.

	2024/25		2023/24		2022/23		2021/22		2020/21	
	7.6		7.6		8.2		8.2		7.5	
<b>Moisture basis</b>	Dry basis	As is	Dry basis	As is	Dry basis	As is	Dry basis	As is	Dry basis	As is
Crude protein, %	39.89	36.86	40.26	37.21	40.19	36.90	39.54	36.31	39.96	36.95
Crude fat, %	20.0	18.4	20.5	19.0	19.9	18.3	19.6	18.0	19.5	18.0
Crude fibre, %	7.4	6.9	6.6	6.1	7.1	6.5	7.2	6.6	6.8	6.3
Ash, %	4.68	4.32	4.61	4.26	4.54	4.17	4.63	4.25	4.55	4.21
<b>No. of samples</b>	250		200		174		150		150	

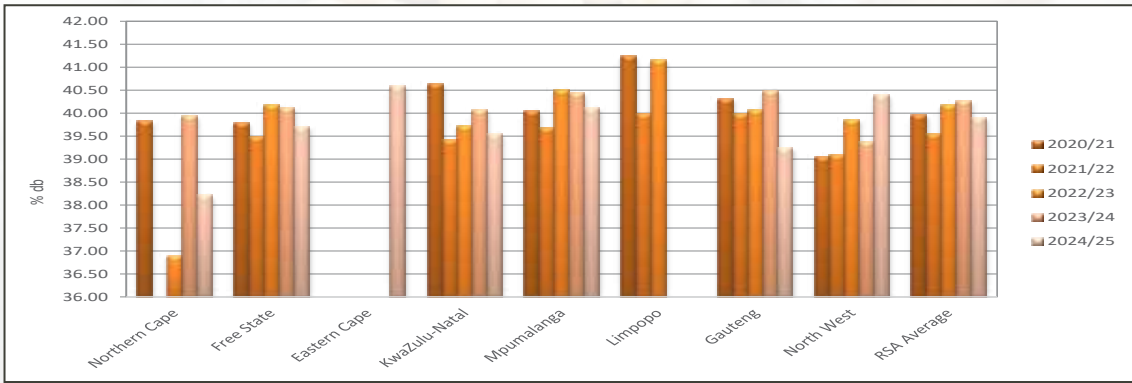
The weighted average crude protein content this season was 39.89%, similar to the 40.26% of the previous season. The averages between provinces ranged from 38.21% in the Northern Cape to 40.59% in the Eastern Cape. The weighted average crude fat percentage of 20.0% was the second highest since the 2011/12 season when this survey commenced. The highest average (20.5%) was reported last season. The samples from KwaZulu-Natal and the Northern Cape had the highest combined average crude fat content, namely 21.10%. The lowest fat average was observed in Gauteng province with 19.50% and North West with 19.56%.

The weighted average percentage crude fibre varied from 6.5% in KwaZulu-Natal to 8.5% in the Northern Cape. The RSA weighted average was 7.4% compared to the 6.6% and 7.1% of the previous two seasons. This season, the weighted average ash content was 4.68%, last season's average was 4.61%. Averages ranged from 4.65% in Mpumalanga and North West to 4.97% in the Northern Cape.

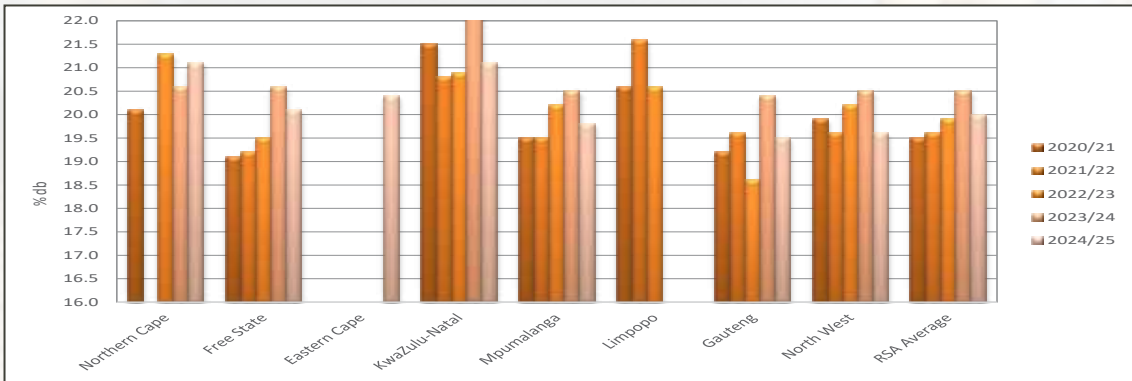
Graphs 22 to 25 on page 20 provide comparisons between provinces over seasons for the nutritional components mentioned above.

A summary of the RSA Soybean Crop Quality averages of the 2024/25 season compared to those of the 2023/24 season, is provided in Table 4 on page 21.

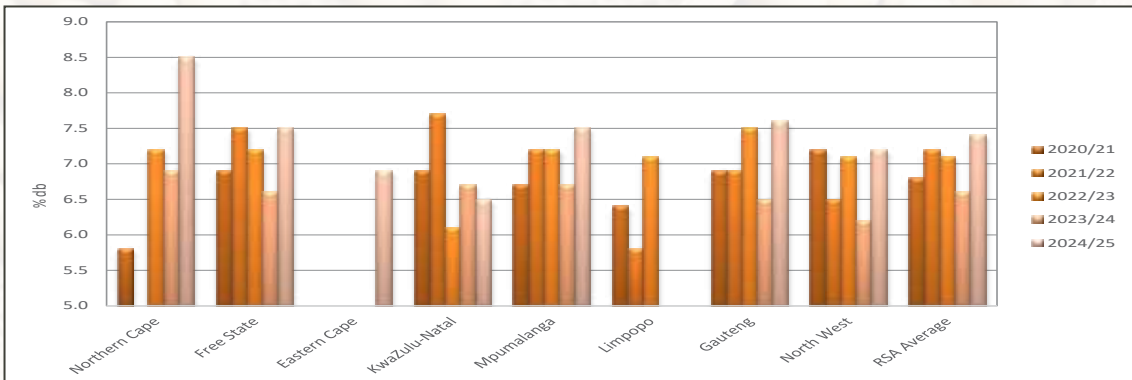
Please see pages 25 to 31 for the average soybean quality per region.



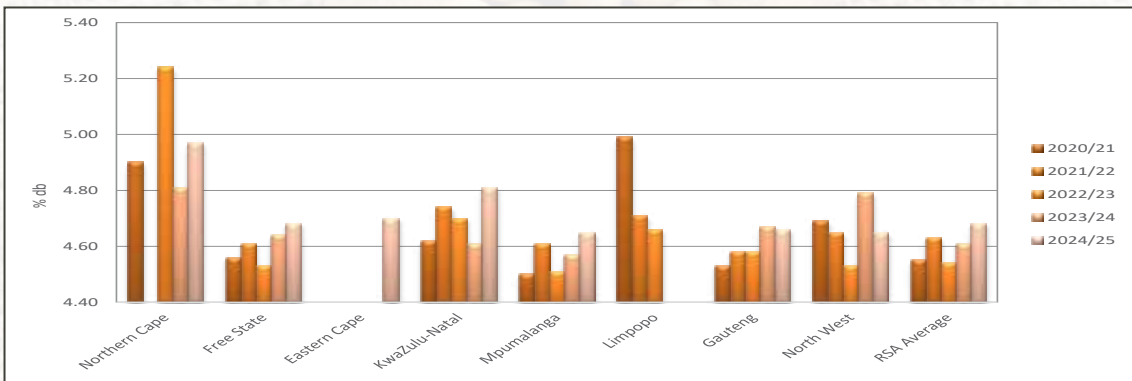
Graph 22: Average crude protein content per province over five seasons



Graph 23: Average crude fat content per province over five seasons



Graph 24: Average crude fibre content per province over five seasons



Graph 25: Average ash content per province over five seasons