

# South African

## Commercial sorghum quality for the 2022/2023 Season

### Acknowledgements

With gratitude to:

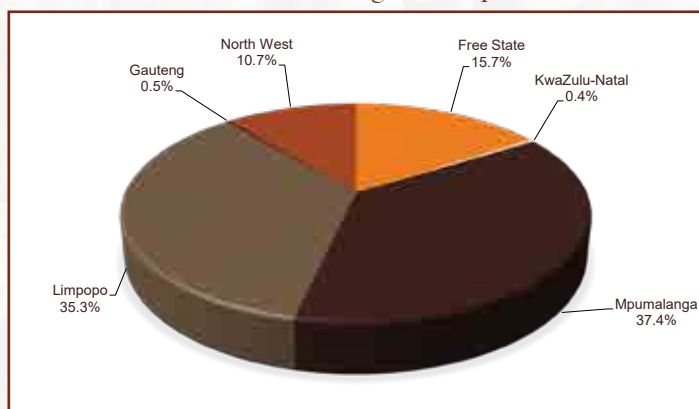
- The Sorghum Trust for its financial support in conducting this survey.
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- The Crop Estimates Committee (CEC) of the Department of Agriculture, Land Reform and Rural Development (DALRRD) for providing production related figures.
- South African Grain Information Service (SAGIS) for providing supply and demand figures relating to sorghum.



## Introduction

The final commercial sorghum crop figure of the 2022/23 production season as overseen by the National Crop Estimates Liaison Committee (CELC) is 94 360 tons. This figure represents a year-on-year decrease of 8.5% (8 780 tons). Mpumalanga, the major sorghum producing province this season, contributed 37% of the total crop, followed closely by Limpopo with a contribution of 35%. The national yield average of 2.78 t/ha was similar to the 2.77 t/ha of the previous season.

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



Figures provided by the CEC.

During the harvesting season, a representative sample of each delivery of sorghum at the various grain intake points, was taken according to the prescribed grading regulations. The sampling procedure for the samples used in this survey is described on page 35. Eighteen (18) composite sorghum samples, representing different production regions, were analysed for quality. In addition, fifteen (15) sorghum cultivar trial samples were included in this survey for comparison purposes.

The samples were graded, test weight and thousand kernel mass were determined. Sub-samples were milled and analysed for moisture, crude protein, crude fat and starch content. After sieving and dehulling by means of a Barley pearler, the fraction of the sample larger than 1.8 mm were milled and Hunter Lab colour analyses conducted. Multi-mycotoxin analyses as well as Image analyses (kernel size distribution, length, width, relative roundness and volume to surface ratio on the whole kernels) were also performed on these samples. Twelve of the crop samples were selected and submitted to Microchem Lab Services (Pty) Ltd for Pesticide Multi-Residue analysis.

This is the sixth annual sorghum crop quality survey performed by The Southern African Grain Laboratory NPC (SAGL). SAGL was established in 1997 on request of the Grain Industry. SAGL is an ISO 17025 accredited testing laboratory and participates in various proficiency testing schemes, both nationally and internationally, as part of our ongoing quality assurance procedures to demonstrate technical competency and international comparability.

The goal of this crop quality survey is the compilation of a detailed database, accumulating quality data collected over several seasons on the national commercial sorghum crop. The data reveal general tendencies and highlight quality differences in the commercial sorghum produced in different local production regions. A detailed database containing reliable analytical data collected over several seasons, is essential in enabling industry to comment on proposed legislative levels and to supply reliable data for targeted research projects.

In addition to the quality information, production figures (obtained from the Crop Estimates Committee (CEC)) relating to hectares planted, tons produced and yields obtained on a national as well as provincial basis, over an eleven season period, are provided in this report. SAGIS (South African Grain Information Service) supply and demand information is provided in table and graph format. Import and export figures over several seasons are also included.

The national sorghum grading regulations as published in the Government Gazette of 8 January 2016 are provided as the last section of the report.

## Production

Sorghum is a tropical grass grown primarily in semi-arid regions of the world. Sorghum can grow in areas too dry for maize and is deemed to be the fifth most important grain crop grown in the world (after maize, wheat, rice and barley).

World sorghum production for the 2023/24 season was 58.0 million tons, with the United States of America, the largest contributor (8.1 million tons). See Table 1a for the world sorghum trade (export and import figures) as well as production, consumption and stocks figures in Table 1b.

Table 1a: World Sorghum Trade					
October/September Trade Year, Thousand Metric Tons					
	2019/20	2020/21	2021/22	2022/23	2023/24
<b>Exports</b>					
<b>Australia</b>	102	1 235	2 267	2 753	1 400
<b>Argentina</b>	426	1 973	1 800	800	1 100
<b>Brazil</b>	1	11	10	1	125
<b>India</b>	31	56	41	37	30
<b>Nigeria</b>	50	50	50	50	50
<b>Ukraine</b>	145	59	72	66	40
<b>Paraguay</b>	8	1	21	38	40
<b>Others</b>	222	247	165	70	84
<b>Subtotal</b>	<b>985</b>	<b>3 632</b>	<b>4 426</b>	<b>3 815</b>	<b>2 869</b>
<b>United States</b>	<b>5 404</b>	<b>6 926</b>	<b>7 387</b>	<b>2 965</b>	<b>6 200</b>
<b>World Total</b>	<b>6 389</b>	<b>10 558</b>	<b>11 813</b>	<b>6 780</b>	<b>9 069</b>
<b>Imports</b>					
<b>China</b>	3 709	8 669	10 991	4 863	7 500
<b>Japan</b>	426	299	258	241	190
<b>Mexico</b>	567	133	362	176	175
<b>Kenya</b>	52	181	79	152	100
<b>South Africa</b>	21	8	1	29	100
<b>Eritrea</b>	35	65	95	63	70
<b>South Sudan</b>	81	71	55	35	50
<b>Somalia</b>	80	50	50	50	50
<b>Sudan</b>	150	125	75	110	50
<b>Taiwan</b>	40	56	55	50	50
<b>Others</b>	467	310	508	294	333
<b>Subtotal</b>	<b>5 628</b>	<b>9 967</b>	<b>12 529</b>	<b>6 063</b>	<b>8 668</b>
<b>Unaccounted</b>	<b>760</b>	<b>590</b>	<b>- 716</b>	<b>717</b>	<b>400</b>
<b>United States</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>World Total</b>	<b>6 389</b>	<b>10 558</b>	<b>11 813</b>	<b>6 780</b>	<b>9 069</b>

**Note:**

Unaccounted: This term includes grain in transit, reporting discrepancies in some countries and trade to countries outside the USDA database.

All trade tables contain Trade Year (TY) data which puts all countries on a uniform, 12-month period for analytical comparisons (Sorghum Oct/Sep), irrespective of the different local marketing years. TY 2022/23 corresponds to Oct 2022 to Sep 2023.