

Statistical Report
NO 24 of 2018
2017/2018 AVAILABILITY AND UTILIZATION OF CEREALS
REPORT



Bureau of Statistics
PO Box 455, Maseru 100, Lesotho
Tel: +266 22 323 852, +266 22 326 393
Fax: +266 310177
E-mail: agric@bos.gov.ls
Website: www.bos.gov.ls

Mission: To coordinate the National Statistical System(NSS) and produce accurate, timely and reliable culturally relevant and internationally comparable statistical data for evidence-based planning, decision making, research, policy, program formulation and monitoring and evaluation to satisfy the needs of users and producers.

Table of Contents

Table of Contents.....	1
1.0 Introduction	2
1.1 Background.....	2
1.2 Objective	2
2.0 Sampling procedure and coverage	3
2.1 Data Collection	3
3.0 Results and Findings	4
3.1 Availability of Cereals.....	4
3.2 Utilization of Cereals	5
4.0 Surplus and Deficit of Cereals.....	8
5.0 ANNEX.....	10

1.0 Introduction

Cereals have been the staple human diet or food from historic time because of their wide cultivation, good keeping qualities and blend flavor. The three common cereals in Lesotho are Maize, Sorghum and Wheat.

1.1 Background

The Bureau of Statistics (BOS) is mandated with the responsibility of collecting, processing, analyzing and disseminating statistical information. BOS conducts Annual Agricultural Production Survey (APS), which provides agricultural statistics for agricultural variables that are subject to frequent and seasonal changes.

The government of Lesotho has made efforts to sustain and improve agriculture in the country. Main emphasis has been on areas of crop production, livestock production and agro-based industries. Availability and Utilization of Cereals Report concentrates on activities that contribute to the supply and demand of food in the Marketing Year, which commences on the 1st of April to the 31st of March. The report covers the information on Maize, Sorghum and Wheat, where the main focus is on availability within households, their utilization, and total food consumption. Thus, showing the overall cereal surplus and deficit within farming households, this is obtained from expected consumption and forecasted production of mentioned cereals.

Cereals that were available, utilized and consumed in the previous Marketing year (2017/2018) were those produced in the previous Agricultural year while the expected consumption (2018/2019) marketing year is based on crop forecasts (2017/2018) agricultural year.

1.2 Objective

Government and data users need reliable statistics concerning the agricultural resources in the country, thus presenting status of their utilization and potentialities, for effective government economic policy decision and formulation of sound and realistic development programs.

The main objective of Availability and Utilization of Cereals Report provides basis for formulating and executing timely food security measures, to alert policy-makers about food situation that contribute to food national balance sheet within the country. This is done to permit timely and orderly planning of cereal imports in cases of shortage and exports in cases of surplus.

2.0 Sampling procedure and coverage

A stratified multi-stage sampling scheme was adopted for the selection of the sample for the APS. Large enumeration areas constituted Primary Sampling Units (PSUs) and individual agricultural holdings (farming households) constituted Secondary Sampling Units (SSUs) for the estimation of land use, crop areas and livestock population. Fields under Maize, Sorghum and wheat formed the third sampling unit for the estimation of crop yield. Two sub-plots for crop cutting in each selected field formed the ultimate units for yield estimation. About 100 PSUs in the rural areas that covered about 2,000 farming households were selected. A maximum of five fields, each for Maize, Sorghum and their mixtures per PSU constituted the sample for the crop forecasting exercise. Wheat which had already reached its maturity stage covers 10 fields per PSU following the APS sampling procedure. The PSUs have been selected with probability proportional to size, the size estimate being the number of households being obtained from the 2016 Population and Housing Census. In each PSU, an average of 20 agricultural households was selected through systematic sampling from a list of all agricultural households.

2.1 Data Collection

Data collection on availability and utilization of cereals within selected farming households was conducted on the 1st of April through face-to-face interviews. Secondary data from Crop Forecasting Survey was also used.

3.0 Results and Findings

Total availability refers to quantity of cereals available in the households for use in a Marketing Year. Total utilization refers to the quantity of cereals used by households during the year. Production in this case refers to the total production reported by farmers in 2016/2017 Agricultural Year.

3.1 Availability of Cereals

Availability of cereals includes; closing stock attained from the past Marketing Year, production, cereals purchased by the households, those received as gifts and incoming exchange of cereals with other commodities during the current Marketing Year.

Figure 1 reveals Percentage Distribution of Available Cereals by District, 2017/2018 Marketing Year. Leribe recorded the highest availability of Maize (26.0 percent) followed by Maseru with 16.1 percent, while Qacha's Nek recorded the lowest percentage of availability of maize (1.8 percent). Availability of wheat had highest records in Mafeteng with 30.0 percent followed by Mokhotlong with 26.1 percent and the least was observed in Qacha's Nek and Botha-Bothe with 0.7 percent and 0.3 percent respectively. Considering availability of Sorghum, Leribe recorded the highest percentage of 23.3 percent while Qacha's Nek recorded the lowest with 0.7 percent.

Figure1: Percentage Distribution of Available Cereals (mt) by District, 2017/2018 Marketing Year

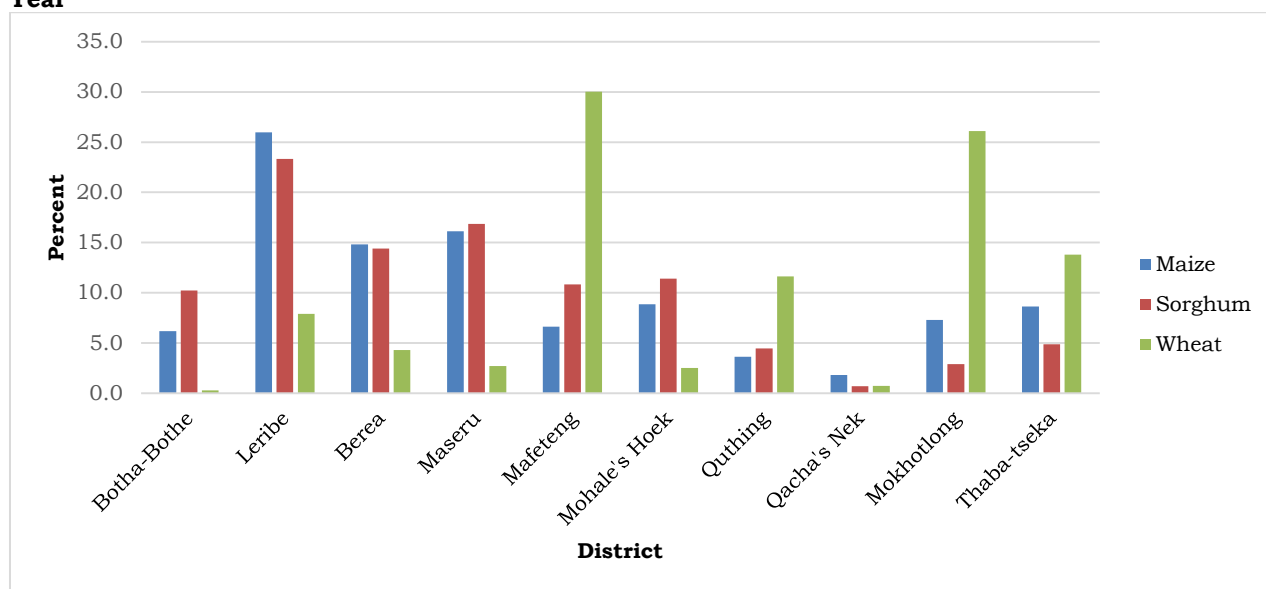


Table 1 presents percentage distribution of three major cereals available at households in 2016/2017 and 2017/2018 Marketing Years. For all crops, production contribution to availability of cereals was highest for all years while the incoming exchange with other commodities was the lowest.

Table 1: Percentage Distribution of Available Cereals, 2016/2017 and 2017/2018 Marketing Year

Availability	Maize		Sorghum		Wheat	
	2016/2017	2017/2018	2016/2017	2017/2018	2016/2017	2017/2018
Previous Stock	21.5	6.7	18.3	7.3	11.3	33.1
Production	47.0	84.7	43.4	80.7	65.6	57.1
Purchases	25.6	5.6	32.7	4.3	16.7	3.5
Received as gift	4.1	2.0	3.6	4.8	5.5	4.5
Incoming exchange with other commodities	1.8	1.0	2.0	2.9	0.9	1.9
Total	100	100	100	100	100	100

3.2 Utilization of Cereals

Utilization of cereals includes; sales of cereals and those given to friends or relatives, outgoing exchange of cereals with other commodities, other uses of cereals (seeds, feeds) and current stock available at the date of interview.

Table 2 depicts Percentage Distribution of Utilization of Cereals by District, 2017/2018 Marketing Years. Leribe recorded the highest percentage of Maize utilized (30.0 percent) followed by Maseru with 18.0 percent. Leribe utilized the largest quantity of Wheat (22.0 percent) followed by Mafeteng with 20.0 percent. It is further revealed from the figure that Sorghum was mostly utilized in Leribe and Botha-Bothe with 30 percent and least in Qacha's Nek with 0.2 percent.

Table 2: Percentage Distribution of Utilization of Cereals by District, 2017/2018 Marketing Years

Districts	Maize	Sorghum	Wheat
Bothe-Bothe	5.3	17.5	0.7
Leribe	30.4	30.0	22.4
Berea	14.4	11.9	4.3
Maseru	18.2	17.5	5.8
Mafeteng	5.2	8.9	19.9
Mohale'sHoek	6.8	7.2	3.8
Quthing	4.8	3.3	8.9
Qacha's Nek	1.7	0.2	0.1
Mokhotlong	6.1	1.6	20.2
Thaba-tseka	7.0	2.1	13.8
Lesotho	100	100	100

Figure 2 shows total utilization of cereals from 2013/2014 to 2017/2018 Marketing Years. Utilization of Maize increased by 304.7 percent from 4,571mt in 2013/2014 Marketing Year to 18,499mt in 2014/2015 Marketing Year. It further increased by 8.7 percent to 28,760mt in 2015/2016 Marketing Year. In 2016/2017 marketing year, a decrease of 87.6 percent was observed to 3,569mt and there was an increase of 8.5 percent in 2017/2018. The same fluctuations were observed for both Sorghum and Wheat.

Figure 2: Total Utilization of Cereals (mt), 2013/2014 to 2017/2018 Marketing Year

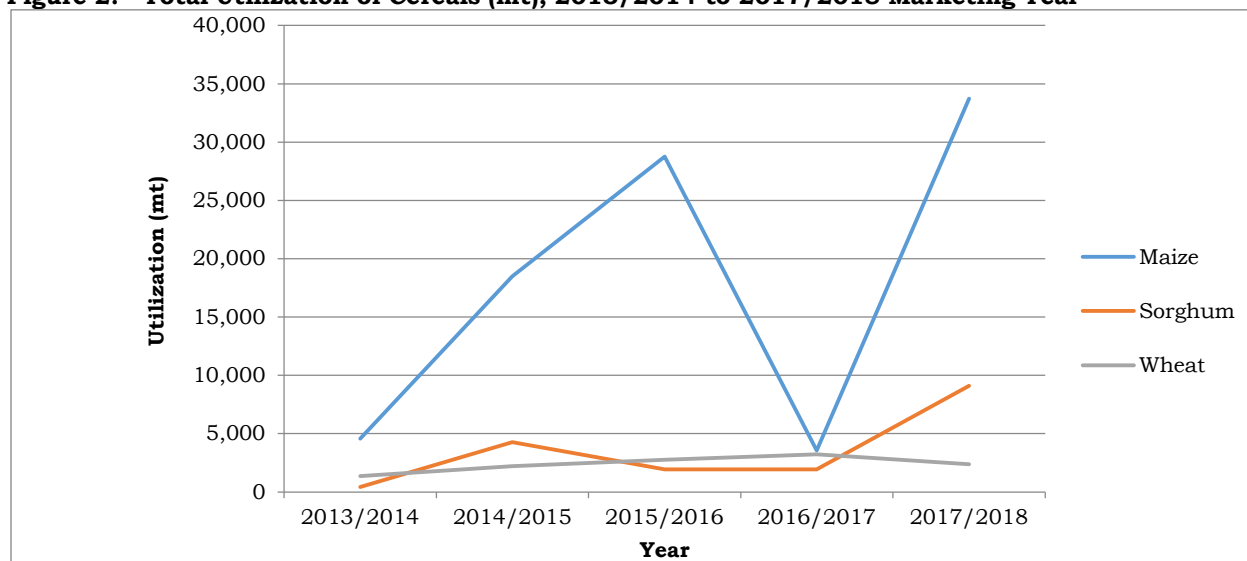


Table 3 presents percentage distribution of total utilization of cereals during 2017/2018 Marketing Year. It is observed that 15.9 percent of Maize was used for feeds and seeds. About 19.3 percent of Sorghum was sold while 32.4 percent of Wheat was remaining at the end of Marketing year.

Table 3: Total Utilization of Cereals, 2017/2018 Marketing Year

Utilization	Maize	Sorghum	Wheat
Sold	6.6	19.3	17.0
Given to friends	15.8	13.4	14.6
Outgoing exchange	3.3	3.1	4.8
Other uses (feeds, seeds)	15.9	7.5	31.3
Closing stock	58.3	56.7	32.4
Total	100	100	100

4.0 Surplus and Deficit of Cereals

Table 4 shows Expected consumption, forecasted production and their imbalance as shown by table 4. The forecasted production of Maize in 2017/2018 was estimated to 64,652mt and the expected consumption is 65,471mt, indicating that there will be a deficit of 819mt within the farming households.

It is observed that Maseru had the highest forecasted production of 13,266mt and expected consumption of 9,869mt indicating a highest surplus of 3,396mt. Leribe also had a higher forecasted production of 13,103mt while Qacha's Nek had the lowest expected consumption of 1, 239mt.

Table 4: Maize Forecasted Production, Expected Consumption and Surplus/Deficit by District

District	Forecasted Production (mt)	Expected Consumption (mt)	Surplus/deficit (mt)
	2017/2018	2018/2019	2018/2019
Botha Bothe	4,075	4,346	-271
Leribe	13,103	15,524	-2,421
Berea	8,675	9,842	-1,167
Maseru	13,266	9,869	3,396
Mafeteng	5,808	4,813	995
Mohale's hoek	4,872	6,499	-1,627
Quthing	2,659	1,991	668
Qacha's nek	1,594	1,239	356
Mokhotlong	3,622	5,168	-1,546
Thaba Tseka	6,980	6,181	799
Lesotho	64,652	65,471	-819

Table 5 presents the expected consumption, forecasted production and surplus with deficit of Sorghum in metric tonnes (mt) by district. The overall forecasted production of Sorghum is 3,837mt while expected consumption is 11,563mt, showing a deficit of 7,726mt.

The table further shows that Maseru had the highest forecasted Sorghum production of 1,214mt while Qacha's Nek had the lowest forecasted production (5mt). The highest expected consumption was registered in Leribe (2,102mt) followed by Berea with 1,896mt.

Table 5: Sorghum Forecasted Production, Expected Consumption and Surplus/Deficit by District

District	Forecasted Production (mt)	Expected Consumption (mt)	Surplus/deficit (mt)
	2017/2018	2018/2019	2018/2019
Botha-Bothe	286	538	-252
Leribe	427	2,102	-1,675
Berea	523	1,896	-1,373
Maseru	1,214	1,890	-676
Mafeteng	331	1,423	-1,092
Mohale's Hoek	827	1,696	-870
Quthing	42	624	-581
Qacha's Nek	5	127	-122
Mokhotlong	91	451	-360
Thaba-Tseka	91	816	-725
Lesotho	3,837	11,563	-7,726

Table 6 illustrates the expected consumption, actual production and surplus/deficit in metric tonnes (mt) of Wheat by district. The total wheat production for the year 2017/2018 was 6,910mt, with expected consumption of 4,501mt, implicating a surplus of 2,409mt.

The highest wheat production is observed in Mokhotlong (3,139mt) followed by Qacha's Nek and Thaba Tseka with 1,576mt and 1,436mt respectively. The highest consumption of 1,587mt is expected in Mafeteng followed by Mokhotlong with 1,312mt.

Table 6: Wheat Expected Consumption, Actual Production and Surplus/Deficit by District

District	Actual Production (mt)	Expected Consumption (mt)	Deficit/Surplus (mt)
	2017/2018	2018/2019	2018/2019
Botha Bothe	128	2	126
Leribe	319	16	303
Berea	0	194	-194
Maseru	143	50	93
Mafeteng	0	1,587	-1,587
Mohale's Hoek	135	84	51
Quthing	176	586	-410
Qacha's Nek	1,576	47	1,529
Mokhotlong	3,139	1,312	1,827
Thaba Tseka	1,436	623	813
Lesotho	7,052	4,501	2,552

Note: Zeros (0) means the selected farmers didn't plant wheat in 2017/2018 agricultural year.

5.0 ANNEX

Table 1: Total Available Cereals by District, Zone 2017/2018 Marketing Year

DISTRICTS	ZONE	MAIZE	SORGHUM	WHEAT
Botha Buthe	Lowlands	1561	666	5
	Foothills	2891	1456	0
	Mountains	1774	13	15
	Total	6226	2135	20
Leribe	Lowlands	14779	3210	353
	Foothills	6947	1571	16
	Mountains	4365	89	181
	Total	26091	4871	550
Berea	Lowlands	11560	1966	179
	Foothills	3337	1045	121
	Total	14896	3011	299
Maseru	Lowlands	9834	1871	117
	Foothills	5599	1647	21
	Mountains	774	0	52
	Total	16207	3517	190
Mafeteng	Lowlands	4597	1612	2090
	Foothills	2069	648	0
	Total	6666	2260	2090
Mohale's Hoek	Lowlands	1125	449	106
	Foothills	937	362	27
	Mountains	2678	247	15
	Senqu River Valley	4176	1323	27
Quthing	Total	8916	2382	176
	Lowlands	0	0	0
	Foothills	0	0	0
	Mountains	2164	624	321
Qacha's Nek	Senqu River Valley	1483	311	488
	Total	3647	936	810
	Mountains	1246	7	38
	Senqu River Valley	579	139	14
Mokhotlong	Total	1825	146	52
	Mountains	7326	604	1817
	Total	7326	604	1817
	Mountains	7625	379	926
Thaba Tseka	Senqu River Valley	1044	640	37
	Total	8668	1019	962
LESOTHO	TOTAL	100,468	20,879	6,965

Table 2: Total Utilized Cereals by District, Zone 2017/2018 Marketing Year

DISTRICTS	ZONE	MAIZE	SORGHUM	WHEAT
Botha Bothe	Lowlands	406	138	0
	Foothills	1186	1445	1
	Mountains	203	3	16
	Total	1795	1586	18
Leribe	Lowlands	6317	1489	500
	Foothills	2900	1211	0
	Mountains	1046	27	34
	Total	10263	2728	533
Berea	Lowlands	3546	664	56
	Foothills	1315	413	46
	Mountains	0	0	0
	Total	4861	1077	101
Maseru	Lowlands	3322	776	74
	Foothills	2584	812	40
	Mountains	238	2	25
	Total	6144	1590	139
Mafeteng	Lowlands	1674	766	472
	Foothills	85	43	0
	Total	1759	809	472
Mohale's Hoek	Lowlands	204	101	81
	Foothills	308	142	2
	Mountains	842	32	0
	Srv	936	377	7
Quthing	Total	2289	652	90
	Mountains	1028	267	61
	Srv	589	32	151
	Total	1617	300	212
Qacha's Nek	Mountains	452	1	1
	Srv	110	15	3
	Total	562	16	4
Mokhotlong	Mountains	2056	144	480
	Total	2056	144	480
	Mountains	2168	98	300
	Srv	198	89	27
Thaba Tseka	Total	2366	187	327
LESOTHO	TOTAL	33712	9090	2377