

















Tomato Round Tomato Jam Carrot

Green Pepper

Pumpkin

Spinach

Sweet corr

Mushroom

HORTICULTURE: PRODUCT PRODUCTION FORECAST

REPORT NO 2

FORECASTED PERIOD: 01 JULY TO 30 NOVEMBER 2020

Agronomy and Horticulture Market Development Division

Horticulture Market Development Subdivision

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1. INTRODUCTION

Report no. 2, covers the local production forecast for the four special controlled products i.e. Tomato, Green Pepper, Carrot, and Pumpkin as well as the three monitored crops i.e. Spinach, Sweet corn and Mushroom. The production of the special controlled products is monitored by NAB and involves close border period whenever sufficient local production is expected, and this scheme is implemented in line with the market share promotion scheme. Monitored crops are those horticultural crops whose production is closely monitored, and have the greatest potential to be converted as special controlled products in the future. The production forecast covers a period of five (5) months and it is updated on a monthly basis, while field verifications are carried out on a quarterly basis. The special controlled products in this report are divided into the following categories: Inclusion and Exclusions: Inclusion involves all the specific sub- product types of special controlled products and can only be imported through the Special Import Permit during open border periods (see table 1A). Exclusion involves sub-product type of special controlled products that does not form part of the special controlled product scheme and can be imported using the mixed fruits and vegetable import permit. The objective the special controlled product scheme is stimulate local production of horticultural products in Namibia, as a growth at home strategy implemented by the NAB. Therefore, this report discusses the abovementioned controlled crops production forecast per area, expected crops availability per producer, tabulation and graphical analysis on expected production versus local demand and subsequently, the hectares planted and average yield expected per hectare during the reporting season.

Table 1A: Show the inclusions and exclusions of the special controlled products.

Product	Inclusions	Exclusions
1.Tomato	Tomatoes Round (Round shaped, red/partially red colour). Tomatoes Jam (Oval shaped, red / partially red colour), except the "Exclusions".	All Small size type of tomatoes, i.e. Cherry, Cocktail, Bacio, Romanita, Rigoleto, and Medley mix, etc. All colours.
2.Green Pepper	All size groups and container size of Green Pepper, except the "Exclusions".	Red Pepper, Yellow Pepper, and Orange Pepper, Peppers mix, etc.
3. Carrot	All size groups and container sizes of Orange fleshed Carrots as well as catering Orange Carrots full size or broken, except the "Exclusions"Red, Purple, White, Black, and Yellow Fleshed Carrots. 3. Pumpkins - All types.	Red, Purple, White, Black, and Yellow Fleshed Carrots.
4. Pumpkin	All types, size groups and container size of fresh/chilled whole or cut pumpkins.	All frozen, prepared or preserved pumpkins.

Whole: any fresh fruit or vegetable that have not been altered from its original form.

Cut: any fresh fruit or vegetable that has been physically altered from its original form, but remains in a fresh state.

Dried: any Fresh fruit or vegetable that have been dried or dehydrated, either whole or in pieces/cuts.

Frozen: any fresh fruits or vegetables that have had their temperature reduced and maintained to below their freezing point.

Chilled: any fresh fruit or vegetable with the temperature reduced to around 0C without the products being frozen.

Cooked: Refers to fruit and vegetables that are cooked by steaming or boiling in water, either whole or in pieces/cuts.

Preserved: Refers to fresh fruit and vegetables soaked in brine or vinegar, or other liquids, either whole or in pieces/cuts.

2. PRODUCTION FORECAST PER AREA

The forecasts of production indicated in table 1B below, are based on estimated hectares and probable yield expected by producers on five-months period (01 July to November 2020). Assuming average weather, diseases and insect conditions during the remainder of the growing period. See details shown in table 1B below.

	Т	able 1: E	XPECTE	D PROD	UCTIO	N PER C	ROP PE	R PROD	UCTION	AREA					
			Number	s in the ta	able repr	esents th	e tonnag	e expecte	ed from e	ach area			Total		
PRODUCTION	CROPS	Jul	-20	Aug	g-20	Sep	-20	Oct	t-20	Nov	v-20	Total Tonnage Expected	Total Hectares		
AREAS	CROPS	Local	Export	Local	Export	Local	Export	Local	Export	Local	Export		Planted		
	Tomato Round	35	0		0	35	0	30	0	25	0	159	1		
	Tomato Jam	22	0		0	5	0	0	0	0	0	52	1		
ZAMDEZI	Carrot	0	0		0	0	0	0	0	0	0	0	0		
ZAMBEZI	Green Pepper	0	0	_	0	0	0	0	0	1	0	10	0		
REGION	Pumpkin Spinach	0	0		0	0	0	0	0	0	0	0	0		
	Sweet corn	0		~	0	0	0	0	0	0	0	0	0		
	Mushroom	0	0	,	0	0	0	0	0	0	0	0	0		
	Tomato Round	0	0	0	0	0	0	0	0	0	0	0	0		
	Tomato Jam	48	0	35	0	10	0	0	0	0	0	93	3		
	Carrot	25	0	0	0	0	0	0	0	0	0	25	1		
KAVANGO	Green Pepper	0	0	10	0	0	0	0	0	0	0	10	1		
REGIONS	Pumpkin	0	0	-	0	0	0	0	0	0	0	0	0		
	Spinach	0	0	7	0	0	0	0	0	0	0	7	1		
	Sweet corn	0	0	0	0	0	0	0	0	0	0	0	0		
	Mushroom	0	0		0	0	0	0	0	0	0	0	0		
	Tomato Round	201	0		0	222	0	44	0	24	0	709	11		
	Tomato Jam	382 14	0		0	387 0	0	168 0	0	0	0	1,604 34	1		
NORTH	Carrot Green Pepper	18	0		0	0	0	0	0	0	0	42	4		
CENTRAL AREA	Pumpkin	0	0		0	0	0	0	0	0	0	0	0		
	Spinach	0	0	~	0	0	0	0	0	0	0	20	2		
	Sweet corn	0	0		0	0	0	0	0	0	0	0	0		
	Mushroom	0	0	0	0	0	0	0	0	0	0	0	0		
	Tomato Round	486	0	396	0	300	0	280	0	300	0	1,762	32		
	Tomato Jam	64	0	47	0	30	0	0	0	0	0	141	0		
	Carrot	430	0	430	0	410	0	460	0	597	0	2,327	46		
KARSTLAND	Green Pepper	0		-	0	30	0	30	0	0	0	60	5		
AREA	Pumpkin	0		,	0	0	0	0	0	0	0	0	0		
	Spinach	0		-	0	0	0	0	0	0	0	0	0		
	Sweet corn	17	0		0	17	0	17	0	17	0	85	5		
	Mushroom	0	0	~	0	0	0	0	0	0 79	0	180	2		
	Tomato Round Tomato Jam	61 30	0		0	25	0	20	0	79	0	179	3		
	Carrot	0	0		0	0	0	0	0	5	0	179	1		
CENTRAL	Green Pepper	32	0		0	30	0	30	0	0	0	129	0		
AREA	Pumpkin	0	0		0	0	0	0	0	0	0	0	0		
	Spinach	3	0	2	0	2	0	2	0	2	0	9	1		
	Sweet corn	0	0	0	0	0	0	0	0	0	0	0	0		
	Mushroom	4	0	_	0	4	0	4	0	4	0	18	1		
	Tomato Round	912	0	,	0	912	0	972	0	986	0	4,694	63		
	Tomato Jam	0	0	-	0	0	0	0	0	0	0	0	0		
SOUTH AND	Carrot	25	0		0	0	0	0	0	0	0	25	1		
ORANGE	Green Pepper Pumpkin	0 50	0	-	0	0 50	0	0 50	0	8 50	0	8 250	6		
RIVER AREAS	Spinach	0	0	0	0	0	0	0	0	0	0	0	6 0		
	Sweet corn		-	-	0	_	_	-	0		-	16	0		
	Mushroom	0			0	0	0	0	0	0	0	0	0		
	Tomato Round		0		0		0		0		0	7,504	109		
	Tomato Jam	546	0	_	0	_	0	188	0	79	0	2,069	28		
	Carrot	494	0		0	_	0	460	0	602	0	2,428	50		
Total expected	Green Pepper	50	0		0		0	61	0	9	0	259	9		
production per	Pumpkin	50	0		0		0	50	0	50	0	290	7		
crop per month	Spinach	3	0		0	2	0	2	0	2	0	37	3		
	Sweet corn	17	0		0		0	17	0	33	0	101	5		
	Mushroom	4	0		0		0	4	0	4	0	18	1		

3. EXPECTED AVAILABILITY

The expected availability calendar in table 2 below illustrates producers that expect to harvest Tomatoes (round/jam), Carrot, Green pepper, Pumpkins, Spinach, Sweetcorn and Mushrooms during the reporting season. it is evident that majority of jam tomatoes producing farmers are from North central area, while round tomatoes producing farmers are from South and Orange rivers, central and Karst production areas. Also, it is indicated that, there is only one mushroom producer in the country for the reporting period, suggesting a need for producers to tap into this business opportunities to ensure domestic usage is met.

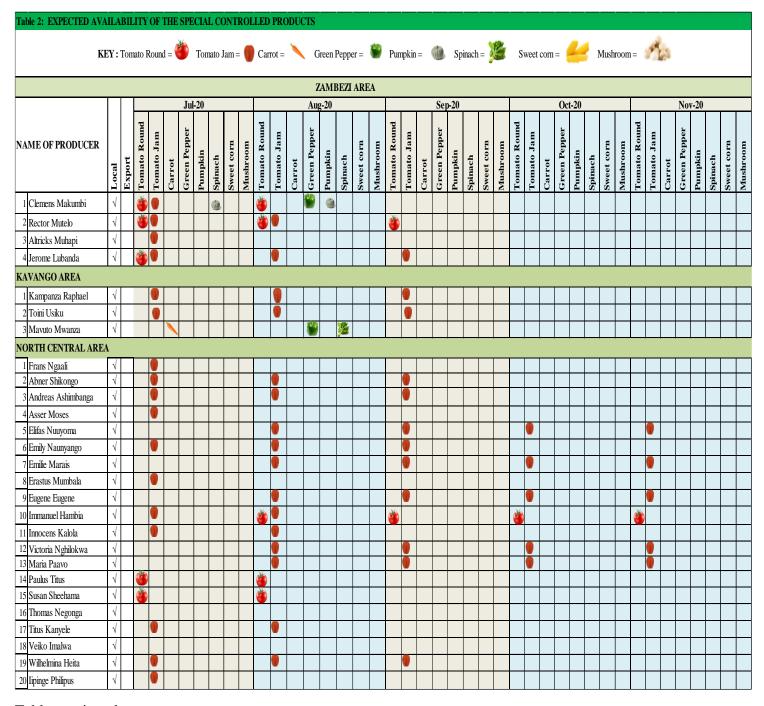


Table continued.

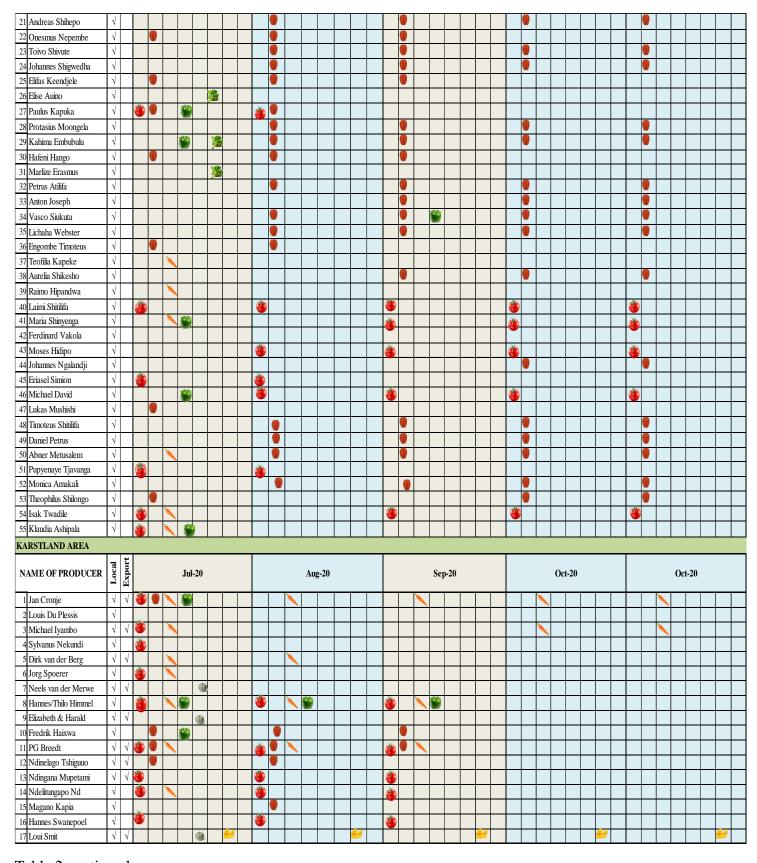


Table 2 continued

Magnus Kurz	1																														
Martha Alweendo									•								0														
Danie Marais	1																														
Grunnar Waldschmidt			3			1																									
Lothar Kollmitz						•							•						•												
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Rudi Kotze	1				0																									П	
Theresia Aochamos	1																														
Kirk	1				0							0																			

Source: NAB,2020

4. EXPECTED PRODUCTION VS DEMAND ANALYSIS

The analysis done in this section determines whether there will be a surplus or shortage for particular product line during the reporting period and subsequently inform the closing and opening of border decision making.

4.1 TABULATION ANALYSIS

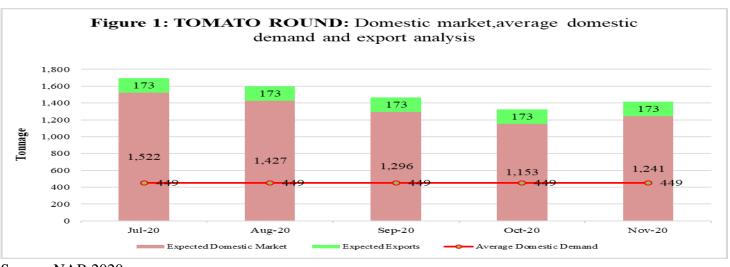
As table 3 indicates, there is unmet local demand for green pepper, spinach, mushrooms, and sweetcorn. Suggesting a need to upscale production in these enterprise. Besides, table 3 revealed that surplus will be expected in tomatoes (round/jam), pumpkins and carrots for the reporting period. However, assuming margin errors and due to market reliance on one large scale carrots producer in Karst area, the border will be opened for carrots on a prorata basis (30% importation) to reduce pressure on this farmer. For pumpkin, the product line is not too big and thus the border will remain closed, until the carry over stock is fully utilized. See table 3 for details.

	Table 3: EXPECTED PRODUCTION						
		Numbers i	n this table	represen	ts tonnage	; I	1
Crops	Expected Surplus or Shortage	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	TOTAL
	Expected for domestic market	1,695	1,600	1,469	1,326	1,414	7,504
Tomato Round	Average domestic demand	449	449	449	449	449	2,243
	Surplus / shortage	1,246	1,151	1,020	877	965	5,261
	Expected for domestic market	546	799	457	188	79	2,069
Tomato Jam	Average domestic demand	164	164	164	164	164	820
	Surplus / shortage	382	635	293	24	-85	1,249
	Expected for domestic market	494	462	410	460	602	2,428
Carrot	Average domestic demand	472	472	472	472	472	2,361
	Surplus / shortage	22	-10	-62	-12	130	67
	Expected for domestic market	50	78	61	61	9	259
Green Pepper	Average domestic demand	212	212	212	212	212	1,061
	Surplus / shortage	-162	-134	-151	-151	-203	-802
	Expected for domestic market	50	90	50	50	50	290
Pumpkin	Average domestic demand	42	42	42	42	42	212
	Surplus / shortage	8	48	8	8	8	78
	Expected for domestic market	3	29	2	2	2	37
Spinach	Average domestic demand	39	39	39	39	39	195
	Surplus / shortage	-36	-10	-37	-37	1,414 449 965 79 164 -85 602 472 130 9 212 -203 50 42 8 2 39 -37 33 116 -83 4	-158
	Expected for domestic market	17	17	17	17	33	101
Sweet corn	Average domestic demand	116	116	116	116	116	580
	Surplus / shortage	-99	-99	-99	-99	-83	-479
	Expected for domestic market	4	4	4	4	4	18
Mushroom	Average domestic demand	49	49	49	49	49	245
	Surplus / shortage	-46	-46	-46	-46	-46	-228

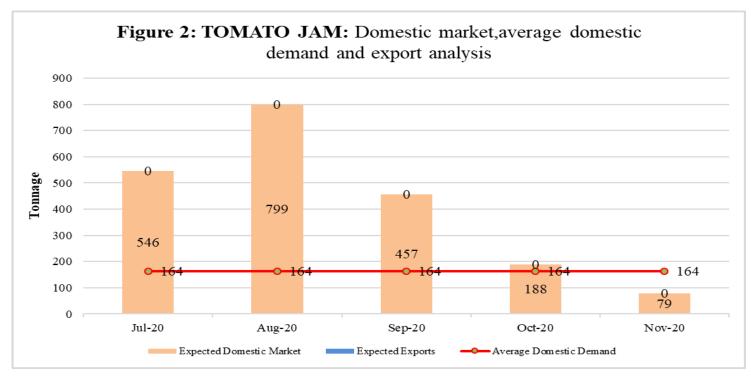
Source: NAB,2020

4.2 GRAPHICAL ANALYSIS

As indicated below in Figure 1, there will be a notable glut on the market for round tomatoes for the reporting season. For that reason, 173 tonnages are earmarked for export markets.

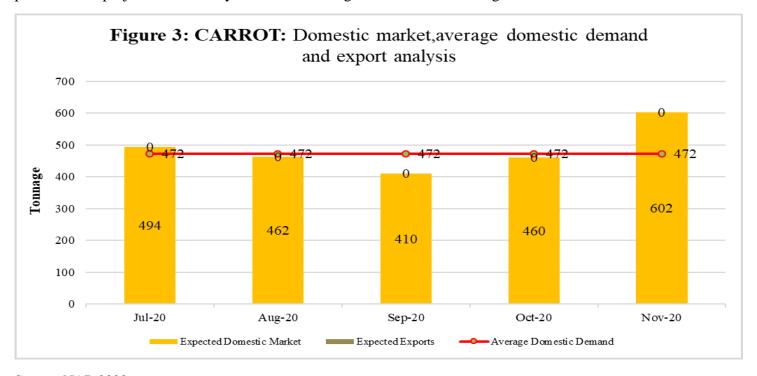


Similarly, to Round tomatoes, it is evident that production forecast for Jam tomatoes surpass domestic usage throughout the reporting period. However, it will be wholly consumed locally. See figure 2 for details.

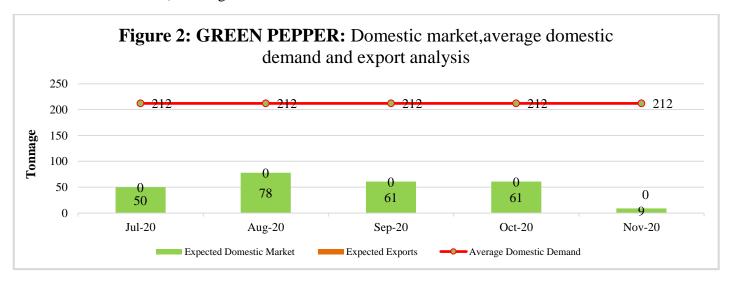


Source: NAB,2020

According to figure 3, the forecast of production for carrot for the reporting nears domestic usage, however, the production is projected to rise beyond domestic usage in November. See figure 3 for details.

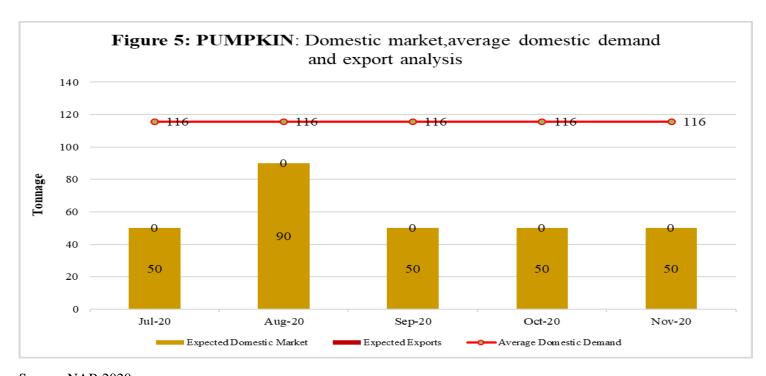


As indicated in Figure 4, the production forecast for green pepper appears to be lower than domestic usage, suggesting that there is scope for green pepper production in the country. This could be attributed by minority of producers with planting intentions for green pepper crop in the reporting season (**Refer to availability calendar under table 2**). See figure 4 below for details.

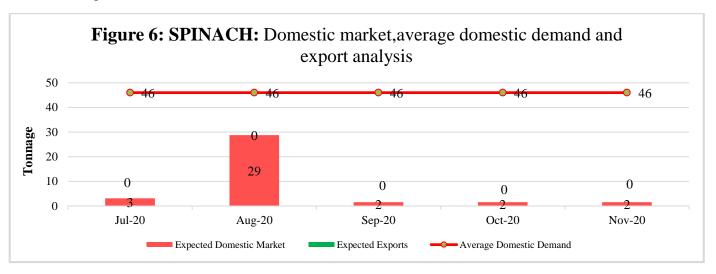


Source: NAB,2020

Figure 5 below revealed that, production forecast for pumpkin during the reporting months will be lower than domestic use. However, it is reported that, substantial tonnage for pumpkins from preceding month still remain with the producers. Sluggish domestic use on pumpkins could be triggered by Corvid- 19 disruptions that resulted in sudden closure of school hostels the biggest consumers of pumpkins. See figure 5 for details.

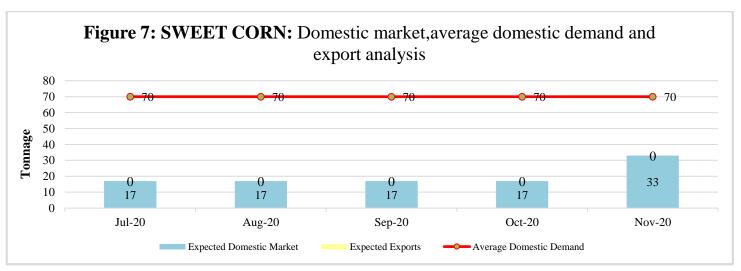


It is evident in Figure 6 that, the local supply for spinach is projected to be lower than demand usage. It is important to note that, spinach is a monitored crop as indicated earlier in the introduction section, and for this crop to be listed as controlled products in future, local production should be up scaled in order to meet the domestic usage.



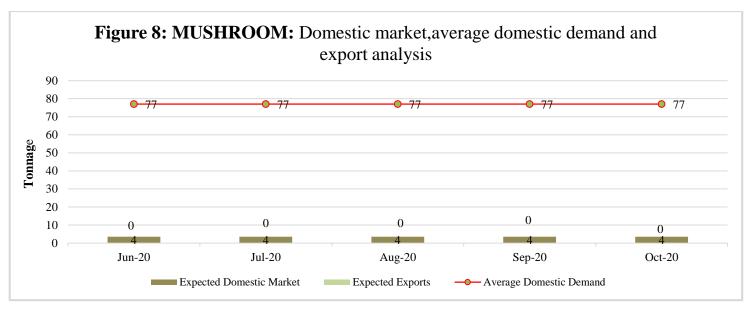
Source: NAB,2020

Similarly, to spinach, Sweetcorn is also classified as monitored crops. According to figure 7 below the production forecasted below will be lower than domestic usage. This could be attributed by low participation in sweetcorn production in the country. This suggest that there is a huge scope for sweetcorn production in the country. Details for sweetcorn local supply versus for domestic usage are shown in figure 7 below.



Source: NAB,2020

Figure 8 revealed that, production forecast for mushroom for the reporting season appears to be extremely lower than the domestic use. This could be due to local market reliance on one mushroom producer in the whole country (see availability calendar under table 2). This means that there is a gap for mushroom production in the country.



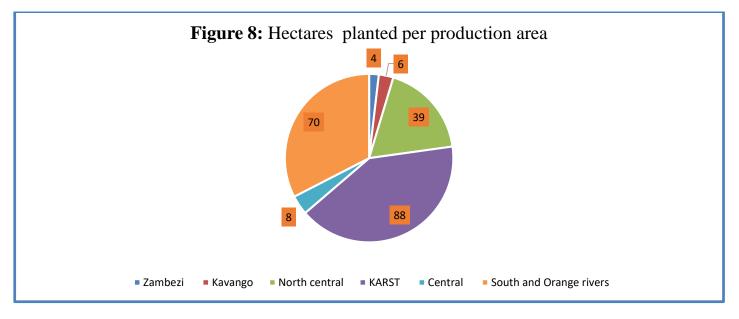
Source: NAB,2020

5. HECTARES PLANTED AND EXPECTED YIELD

This section reveals the hectares planted per production area and per crop. Subsequently, it shows the expected yield per production area and per crop.

5.1 Hectares planted per production area

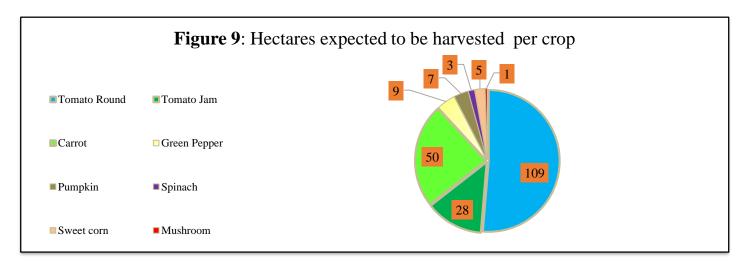
Based on figure 8 KARST production area makes up the largest hectares planted, followed by North central, South and Orange rivers areas. Kavango regions and, Central and Zambezi region makes up the lowest hectares planted for the reporting period. See details shown in figure 8 below.



Source: NAB,2020

5.2 Hectares planted per crop

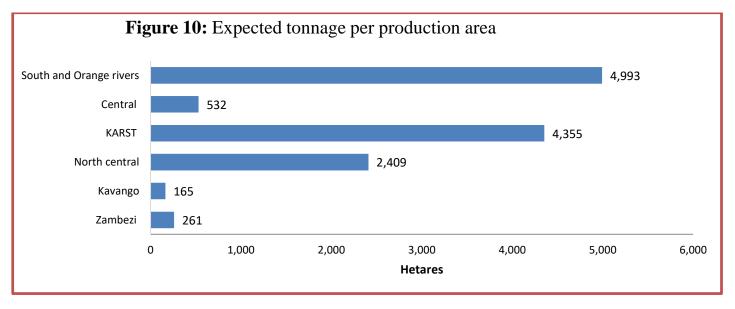
Figure 9 indicated that, Tomatoes round makes up the largest hectares to be planted for the reporting season, followed by carrot and tomatoes jam. Whereas, green pepper, spinach, pumpkin, sweetcorn and mushrooms makes up the lowest hectares planted. Details for probable hectares planted per crop are shown in figure 8 below.



Source: NAB,2020

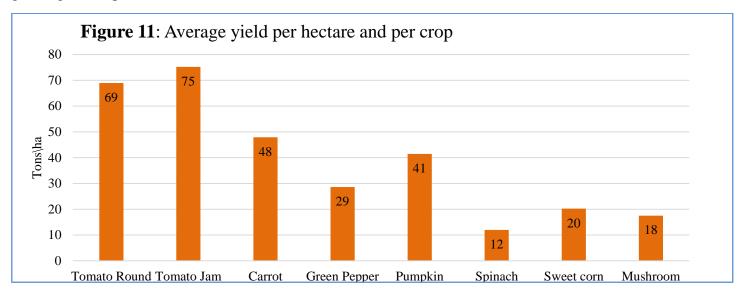
5.3 Expected yield per production area

Based on figure 10 South and Orange rivers expect higher tonnages, followed by KARST and subsequently North central production area. The lowest yield will be expected in Central, Kavango regions and Zambezi production areas. See details shown in figure 10 below.



5.4 Average yield per crop

Assuming all things are equal the highest yield will be realized in tomatoes jam (82tons/ha), followed by tomatoes round (67 tons/ha) pumpkins (41tons/ha) and carrots (38tons/ha). The lowest yield per hectares goes to Green pepper (13tons/ha), Spinach, Sweetcorn and Mushroom. It should be noted that, potential yield per crop per producer heavily depends on cultivar choice, management practices applied and environmental stress factors prevailing during the growth of the crop amongst others. Therefore, figure 8 below gives an indication of estimated potential average yield per hectare per crop and can aid a producer when making decisions about growing the crop.



Source: NAB,2020

6. CONCLUSIONS AND RECOMMENDATIONS

In conclusion, assuming a normal growing season and considering the intended hectares to be planted, the local demand for Carrots, green pepper, spinach, sweetcorn and mushrooms are unmet. Whereas, Tomatoes jam/round local availability is estimated to exceed domestic usage. On a different note, Pumpkins production forecast for the reporting season will be lower than domestic use, however, pumpkins that were harvested in preceding month were not fully used. Therefore, it is recommended that:

- The import restriction will be implemented for tomato (100% closed border), Pumpkin (100% border closed) and carrots (30% border closed). In addition, green pepper will be open for importation and the MSP requirements applies at all times. It is important to note that, further restrictions will be implemented during the reporting period and this will depend on verified production data from the producers.
- Also, producers are advised to submit updated and realistic production forecast data monthly with NAB, to
 ensure effective management of opening and closing of border periods.
- Finally, spinach, sweetcorn and mushrooms are not added on the list of controlled crops yet, thus no import restriction will be implemented on these crops. Thus, producers are encouraged to expand production on these crops to justify future additions.

