

We would like to acknowledge all the processors for supplying SAMAC with the information needed to make the following macadamia production statistics available. The production figures below show the production of macadamias for 2007 in the various South African provinces as well as Malawi and Zimbabwe.

During the season 2006/2007 South Africa produced 18 805

tons DIS (Dry In Shell) macadamias (Table 1). This is a 10.45% increase compared to the previous season (Table 2). All areas increased their production except KwaZulu Natal whose production dropped to 517 tons and Zimbabwe who only had 405 tons processed in South Africa in 2007. The decrease in the production of Natal of almost 60% can be partially due to bad weather, but it is expected that processors do not differentiate between nuts that are of Natal origin and the apparent decrease could be due to Natal nuts being presented as part of the other provinces' data. The decrease of Zimbabwean DIS macadamias is due to firstly the accumulated amount of more than 500ha of macadamia orchards that were seized by the Zimbabwean government as part of its farm settlement program. The second reason is most probably the lack of chemicals and possibly knowledge of effective control of stinkbugs that led to the decrease of 47.7% from 2006. Production in Limpopo increased by 15.1%, Mpumalanga by 20.6% and Malawi by 69.2%. The increase in production in these areas is mostly due to young orchards coming into bearing. This trend is expected to continue for a number of years as all the Southern African production areas have planted ample hectares of macadamias over the past 5 to 10 years. This trend can especially be seen in the Limpopo and Mpumalanga provinces (Figure 1).

The total kernel of the 2007 season was the highest it has been over the past eight years (Table 2). The sound kernel percentage of the South African macadamia producers have stayed relatively constant with a mean average of 26.36% over the past eight years. It is however 1.2% lower than 2002 when the SKR% was 27.44. This, coupled with the second highest USKR% of 5.07 over the past eight years is of concern. The increase of 0.7% in unsound kernel, and decrease of 0.4% of

## 2007 South African Macadamia production

Written by Theo Bekker in January 2008

sound kernel indicate a dire need for scout training and effective farm management.

The three most important culprits causing unsound kernel in South Africa is Early and Late Stinkbug damage and kernel discoloration (Figure 2). SAMAC has initiated trials to determine the causes of nut discoloration and possible prevention thereof. What is however worrying is the high level of stinkbug damage. Although this is a problem that will not be solved

completely, SAMAC, together with numerous role players has developed a scouting system that is effective in limiting stinkbugs in the orchard. However, poor management practices such as spraying according to a set program (or not spraying at all), together with the lack of implementation of scouting in the orchards caused a loss of 429 tons of macadamia kernel. At an average price of R20/kg on farm the loss of income to the South African farmer amounts to R8.5million. These figures indicate the need for implementation of scouting and scout training to ensure effective control of stink bugs. It is however interesting to note that the damage due to Early stinkbug has increased over the past five years by more than 7% while the damage due to Late stinkbug has decreased with more than 8%. This indicates the need for scouting as soon as nut set starts.

Two factors that create concern are the increase of 791 spot from 7.7 to 10.8% and discoloration from 23.6 to 26%. Harvesting nuts as soon as possible can reduce this. Dehusking should also be done on the same day that harvesting takes place.

The breakdown of unsound kernel for South Africa paints a different picture when compared to the average (Table 3). The increase in Limpopo for early stinkbug was more than 13% compared to the South African average of 3.5%. Similarly, the increase of 791 spot of 3.1% for South Africa does not indicate the actual decrease of this problem, and the actual extent of this problem in other provinces. This indicates the need of specific management practices to be implemented in different production areas and the possibility of a centralized scouting result information hub that could possibly predict insect populations and aid in effective management.

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**Table 1: Macadamia production for Southern Africa in 2007**

	South Africa				Other Southern African countries			
	Limpopo	Mpumalanga	KZN	Total RSA	Malawi	Swaziland	Zimbabwe	Grand total
<b>WIS</b>	10765452.8	8107402.0	1413687.0	20286541.8	994677.0	6072.0	434507.0	21721797.8
<b>DIS</b>	10132858.0	7320153.0	1259268.0	18712279.0	920997.0	5733.0	405459.0	20044468.0
<b>TSK</b>	2372406.1	2166130.8	363082.3	4901619.2	277673.0	1817.4	85633.0	5266742.5
<b>TUSK</b>	607133.0	254695.7	85612.8	947441.5	27072.0	378.4	23272.0	998163.9
<b>SKR%</b>	23.41	29.59	28.83	27.28	30.15	31.70	21.12	27.56
<b>USKR%</b>	5.99	3.48	6.80	5.42	2.94	6.60	5.74	5.18
<b>TKR%</b>	29.40	33.07	35.63	32.70	33.09	38.30	26.86	32.74

**WIS** = Wet-in-shell

**DIS** = Dry-in-shell

**SK** = Sound kernel

**USK** = Unsound kernel

**TK** = Total kernel

**SKR%** = Sound kernel recovery percentage = SK / DIS x 100

**USKR%** = Unsound kernel recovery percentage = USK / DIS x 100

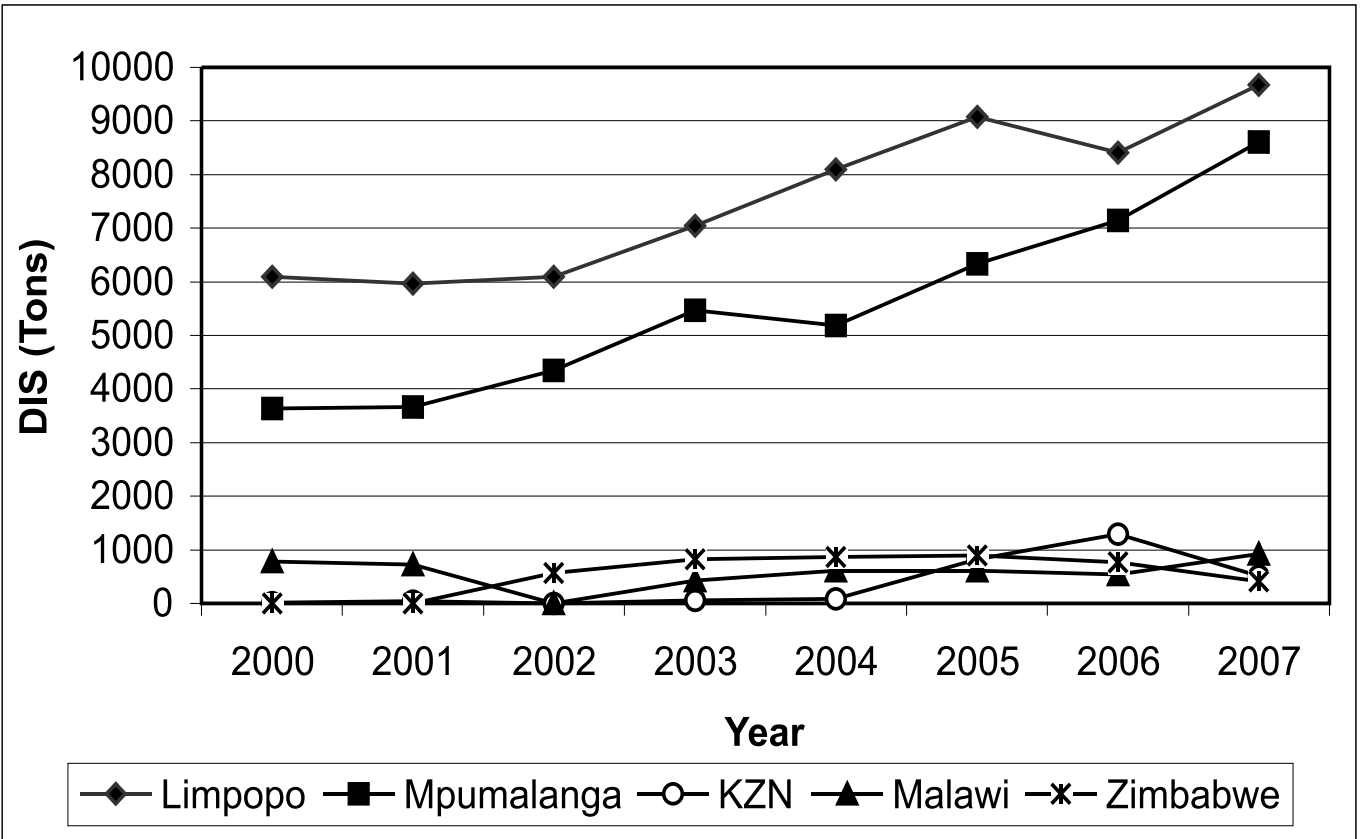
**Table 2: Macadamia production for South Africa over a period of eight years.**

	<b>WIS (kg)</b>	<b>DIS (kg)</b>	<b>SK (kg)</b>	<b>USK (kg)</b>	<b>SKR%</b>	<b>USKR%</b>	<b>TKR%</b>
2000	10889000	9742012	2460673	574063	25.26	5.89	31.15
2001	10789000	9671024	2530016	456306	26.16	4.72	30.88
2002	11463000	10439808	2864784	380491	27.44	3.64	31.09
2003	14083294	12575787	3416984	455680	27.17	3.62	30.79
2004	17785411	16231314	4205175	785630	25.91	4.84	30.75
2005	14539800	13363732	3494419	612063	26.15	4.58	30.73
2006	18624635	16840022	4481931	729189	26.61	4.33	30.94
2007	20384886	18805258	4923343	953190	26.18	5.07	31.25

**Table 3: Breakdown of unsound macadamia kernel for the various production regions over a period of five years.**

		Limpopo	Mpumalanga	KZN	South Africa	Malawi	Zimbabwe
Early Stinkbug	2003	30.0	18.8	0.0	23.9	15.6	18.2
	2004	22.8	20.5	20.6	21.3	18.4	27.4
	2005	25.3	20.6	20.8	22.2	18.4	27.4
	2006	18.6	13.6	28.8	19.6	18.0	17.0
	2007	31.8	17.7	19.7	23.1	29.6	38.7
Late Stinkbug	2003	20.0	22.9	0.0	21.6	5.4	19.2
	2004	26.9	24.9	39.8	30.6	9.8	21.8
	2005	26.0	20.0	40.0	28.7	9.8	21.8
	2006	25.0	28.4	26.9	26.6	13.3	27.5
	2007	24.1	20.9	22.0	22.3	0.3	20.0
Nut Borers	2003	1.9	2.2	0.0	2.1	1.6	5.1
	2004						
	2005	0.8	3.2	0.2	1.4	2.4	2.0
	2006	1.0	6.0	1.1	2.7	0.7	0.8
	2007	2.5	1.8	1.6	2.0	0.7	0.5
Immature nuts	2003	15.2	8.0	0.0	11.3	16.2	15.8
	2004	13.0	13.7	6.4	11.0	19.7	15.8
	2005	17.4	16.2	6.6	13.4	19.7	15.8
	2006	13.1	8.8	6.4	9.9	9.3	13.6
	2007	10.5	7.7	8.4	8.9	28.9	13.7
Pre-germinated	2003	4.4	1.0	0.0	2.6	8.4	5.9
	2004	0.6	1.3	1.9	1.3	1.1	0.1
	2005	0.8	1.7	3.8	2.1	1.1	0.1
	2006	3.0	2.0	0.6	2.1	4.9	2.1
	2007	2.5	1.9	1.3	1.9	13.6	0.4
Mould	2003	6.4	5.7	0.0	6.0	25.3	19.1
	2004	9.4	7.4	3.7	6.8	26.0	6.2
	2005	6.6	8.1	2.2	5.6	26.0	6.2
	2006	6.7	6.3	7.3	6.7	35.6	10.8
	2007	6.5	6.6	4.5	5.8	19.4	6.0
791 Spot	2003	6.4	8.2	0.0	7.4	1.3	4.8
	2004	6.0	7.2	7.2	6.8	7.3	3.4
	2005	6.7	8.5	11.2	8.8	7.3	3.4
	2006	11.5	6.5	3.4	7.7	3.4	1.8
	2007	10.7	13.8	7.7	10.8	4.2	1.9
Discoloured	2003	14.3	31.0	0.0	23.4	25.0	11.3
	2004	16.6	20.6	18.7	18.6	15.4	23.2
	2005	16.4	20.1	15.2	17.2	15.4	23.2
	2006	20.8	26.4	24.3	23.6	14.6	24.7
	2007	14.7	28.6	34.8	26.0	0.0	18.7
Other	2003	1.4	2.1	0.0	1.8	1.1	0.5
	2004	1.3	1.7	1.3	1.4	0.0	0.0
	2005	0.0	1.4	0.0	0.5	0.0	0.0
	2006	0.5	2.1	1.3	1.3	0.4	1.7
	2007	0.1	1.1	0.1	0.4	3.3	0.1

Figure 1: Production volumes of DIS macdamias from the various regions



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Figure 2: Breakdown of unsound macadamia kernel for South Africa over a period of five years.

