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# Foreword

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The Bureau for Food and Agricultural Policy (BFAP) was established in 2004 with the purpose of facilitating decision making in the South African agricultural sector as well as training of individuals in order to increase analytical and research skills available to the sector. BFAP is housed as an independent program within the Department of Agricultural Economics, Extension and Rural Development at the University of Pretoria, the Department of Agricultural Economics at the University of Stellenbosch, and the Department of Agricultural Economics at the Provincial Department of Agriculture, Western Cape. Since the time of inception, BFAP has facilitated informed decision making by South African agribusinesses, policy makers, trade negotiators and farmers through the development and operation of comprehensive analytical systems.

The analysis of world and domestic markets consists of baseline projections and scenario analyses of possible market and policy changes and the possible impacts of these changes on domestic markets and farm profitability and survivability. The baselines and scenarios are constructed in such a way that the decision maker can form a picture of possible future changes and what their likely effects could be. Pro-active actions can thus flow from the use of these baselines and scenarios. BFAP is the first of its kind in South Africa and has become a valuable resource to government, agribusiness and farmers by providing analysis of future policy and market scenarios and measuring their impact on farm and firm profitability. Core funding for this initiative is provided by: The National Agricultural Marketing Council, ABSA Bank, WineTech, THRIP programme of the Department of Trade and Industry (DTI) and Eskort Limited.

BFAP acknowledges and appreciates the tremendous help and insight of numerous industry specialists over the past years. Although their comments and suggestions are taken into consideration in the baseline projections, BFAP takes full responsibility for any errors. Finally, BFAP expresses its sincere appreciation to the Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri and its staff who have trained BFAP staff members and supported the modelling initiative at the University of Pretoria over the past six years.

Ferdinand Meyer  
Program leader: Bureau for Food and Agricultural Policy  
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# Purpose and Background

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The baseline simulations presented in the BFAP Baseline 2007 should be regarded as one of the tools in the decision making process in the agricultural sector. ***The baseline simulations tell us what the possible outcome could be given a certain set of assumptions.***

However, external factors that influence the agricultural industry change constantly, hence the simulation results should be evaluated critically. Because of variability and uncertainty underlying the agricultural sector, not only the baseline simulations should be used in the process of making decisions, but also other sources of information, experience, and other planning and decision making techniques.

The baseline is a simulation of a range of commodities in the South African agricultural industry under agreed policy, macroeconomic and demographic assumptions. In this baseline, the following commodities have been added to the existing list: apples, sugar and biofuels. All the commodities are simulated within a closed system of equations in the BFAP sector model. This implies that any shocks in the grain sector are transmitted to the livestock sector, the biofuels sector and vice versa. The BFAP sector model is an econometric, recursive, partial equilibrium model. For each commodity, the important components of supply and demand were identified and equilibrium was established in each market by means of balance sheet principles where demand equals supply. For example, in the case of a typical crop, these components include the area devoted to production, the yield per hectare, total production, direct human consumption, industrial use, exports, imports, and ending stocks. Baseline projections are provided up to 2012 and for the long-term commodities up to 2014. For most of the commodities the prices are reported in current (nominal) values, but for some of the long-term crops, like sugar, wine and apples, the prices are also reported in constant (real) terms.

*The baseline does NOT constitute a forecast, but rather a benchmark of what could happen under a particular set of assumptions. Inherent uncertainties including policy changes, weather, and other market variations ensure that the future is highly unlikely to match baseline projections. Recognizing this fact, BFAP incorporates scenario planning and stochastic analyses with baseline simulations in the process of attempting to understand the underlying risks and uncertainties of agricultural markets.*

This publication contains the deterministic baseline projections with single point estimates as well as some results from stochastic simulations for the maize and wheat industry. Macroeconomic assumptions are based on projections prepared by Global Insight. In addition to the assumption that current policies remain in place, BFAP assumes that average weather conditions prevail in South Africa and around the world, the world economies grow in line with projections developed by Global Insight and productivity generally increases in line with past trends. Baseline projections for world commodity markets are taken from the FAPRI 2007 US and World Agricultural Outlook.

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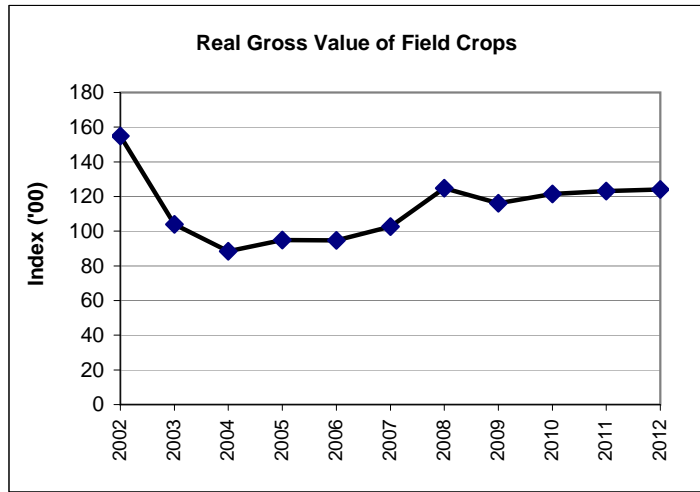
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# Executive Summary

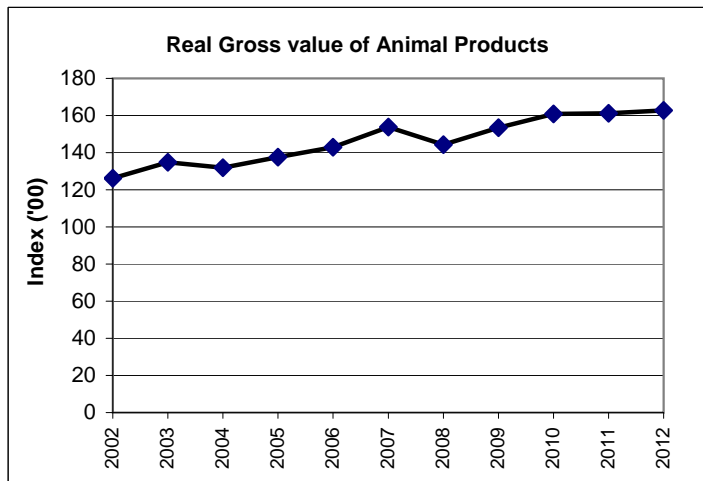
## Real Gross Value of Field Crops

During the past decade, the gross value of field crops displayed significant variability in response to fluctuations in markets and climate, among others. It has shown a continued decline over the period 2002 - 2004 and has been constant over the past three seasons. Despite the impacts of the drought, the gross value is projected to grow marginally in 2007 due to high commodity prices. It is projected to increase further in 2008 under increased plantings due to high commodity prices in 2007 and the assumption that normal weather conditions will prevail in 2008. Over the remaining baseline period, growth is projected to be marginal.



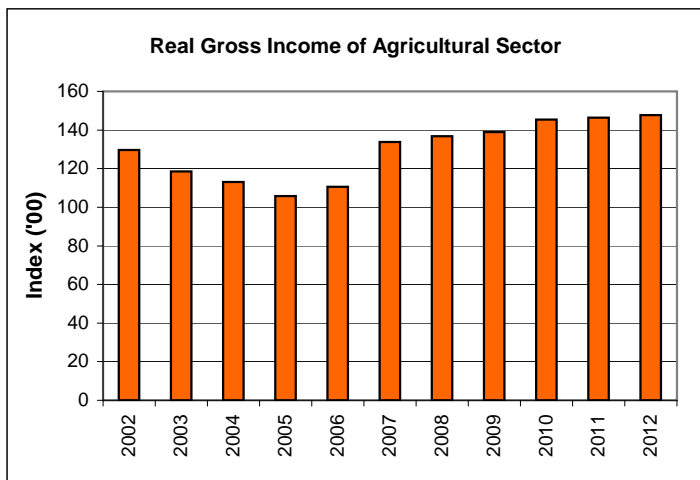
## Real Gross Value of Animal Production

Animal production is the largest source of income for the agricultural sector. More than 40% of the gross income of the sector is derived from this activity. The real gross value of animal production indicates in general an upward trend for the past decade with typical livestock cycles and it is projected to reach a peak in 2007 with high prices and slaughterings. It is projected to decline in 2008 with softer prices but increases again from 2009 onwards. Annual average growth is projected at 3.05% for the period 2008 to 2012.



## Real Gross Income of Agricultural Sector

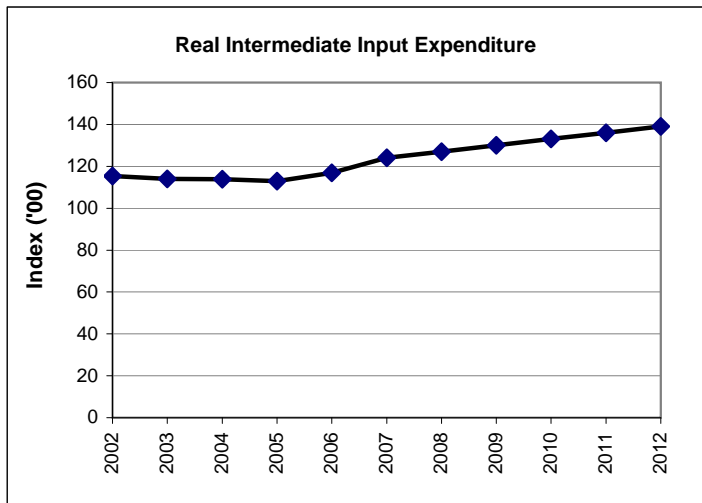
Real gross income of the agricultural sector is derived from field crops, animal production and horticulture activities. It has shown a declining trend over the period 2002 -2005. Gross income increased marginally in 2006 due to the strong performance of the livestock sector and is projected to grow further in 2007. Annual average growth of real gross farm income is projected at 1.93% for the period 2008 to 2012. The marginal impact of biofuels on the industry is evident in the increase of gross income in 2010.



# Executive Summary

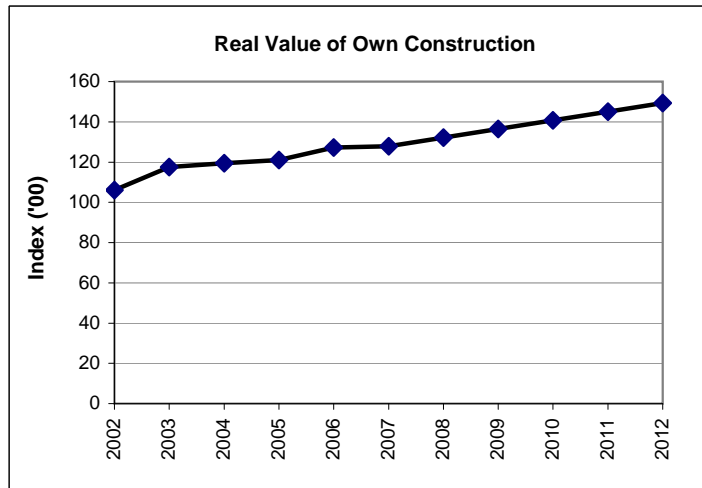
## Real Intermediate Input Expenditure

The rise in real agricultural commodity prices in 2007 encourages production and hence input expenditure rises. Real intermediate input expenditure is projected to increase at an annual average rate of 2.3% for the period 2008 to 2012. The projected depreciation of the Rand together with the projected increase in the demand for intermediate inputs will mainly contribute to the rise in expenditure.



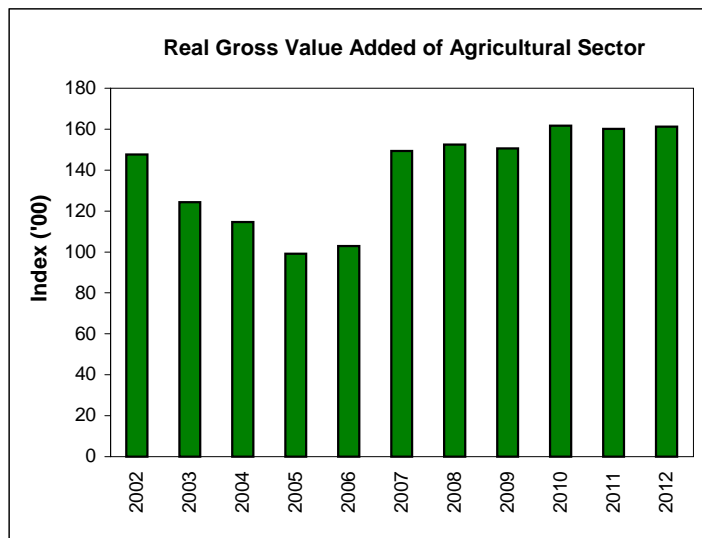
## Real Value of Own Construction

Own construction is one of the components to calculate the agricultural value added, which refers to the erection of new building and works, additions to and alterations of existing buildings and works, which is done by agricultural producers. The annual average growth rate of the value of own construction is projected to be 3.1% over the baseline period.



## Real Gross Value Added

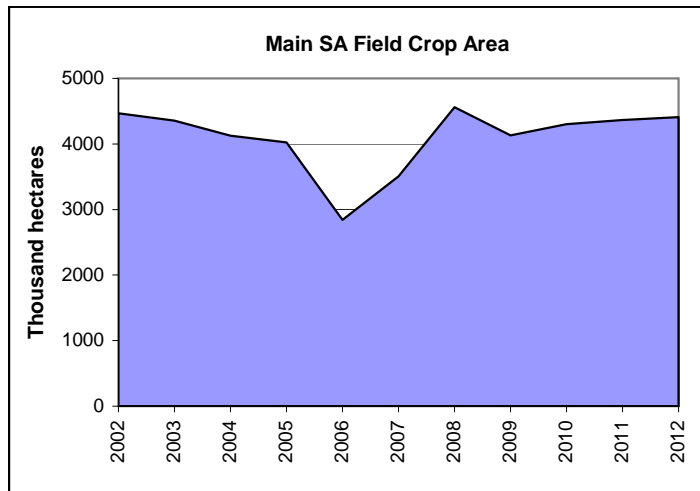
The gross value added of the agricultural sector is the contribution of the sector to the total GDP of the economy in real terms. It has exhibited a downward trend from 2002 to 2005 and has marginally increased in 2006. However, the projected higher gross income for 2007 is likely to reverse the downward trend. An annual average growth rate of 1.4% is projected for the period 2008 to 2012. Higher world commodity prices and the effects of economic growth on consumer demand for livestock products explain the change in trend.



# Executive Summary

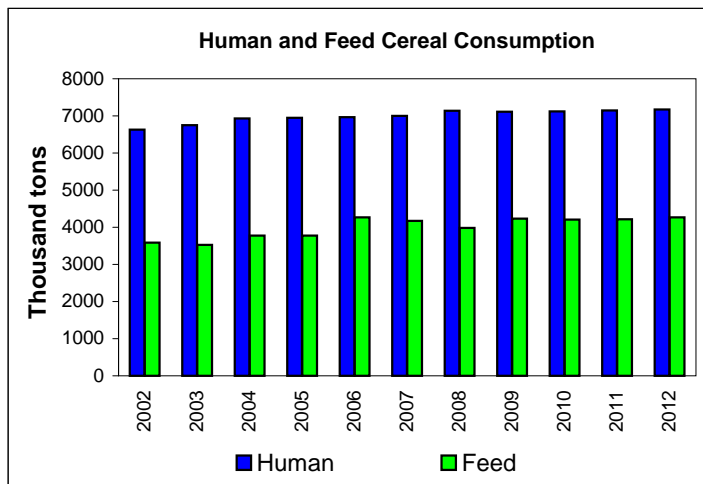
## Land Use

The area for main field crops declined from 2002 to 2006. The area increased during 2007 and is projected to increase even further in 2008 on the back of high commodity prices due to the recent drought and high world prices. The area is projected to remain between 4.2 and 4.5 million hectares. The marginal increase in land use due to the introduction of the anticipated biofuel production from maize, soybeans and other field crops can be seen in the outlying years after 2010. The total area under main field crops is projected to reach 4.4 million hectares in 2012.



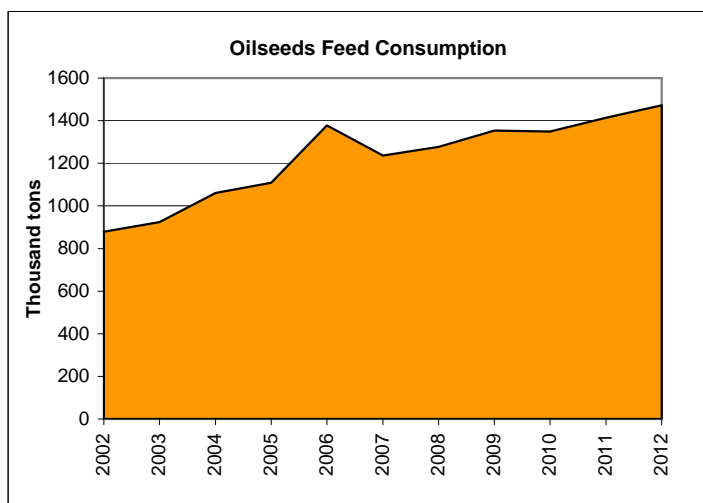
## Human and Feed Cereal Consumption

Human cereal consumption is projected to decrease due to the projected decrease in per capita consumption of white maize. Feed consumption is expected to decrease marginally during 2007 and 2008 compared to 2006 due to the very high feed prices and a slow down in the increase in meat prices. However, feed consumption will grow at a constant rate from 2009 onwards as feed prices level off and the domestic demand for meat grows, which drives up meat prices.



## Oilseeds Feed Consumption

Oilseeds feed consumption (sunflower, soybeans, canola) has been growing over the past decade and is projected to grow over the baseline. A slight slow down in growth will occur in 2007 and 2008 due to record high prices of oilseeds, but beyond 2008 demand grows rapidly to reach 1.49 million tons in 2012.

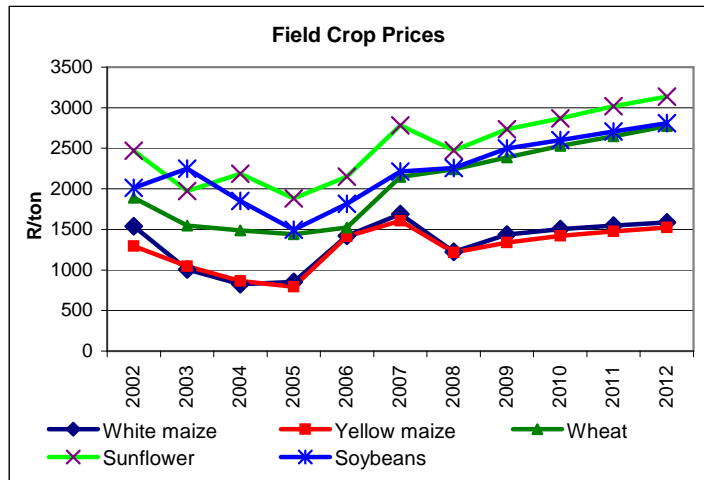




# Executive Summary

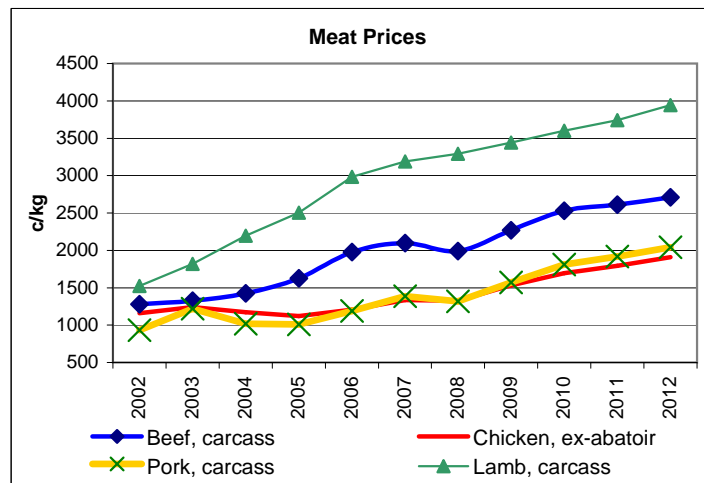
## Field Crop Prices

Maize prices are expected to decrease in 2008 in response to increased supplies, but will then steadily increase over the baseline. The production of biofuels from maize is taken into consideration in this price graph. Sunflower prices are also expected to pull back in 2008 as production recovers, but will increase from 2008 onwards due to higher import parity prices of sunflower oil. The wheat price is projected to increase constantly over the baseline period in response to a depreciating exchange rate as well as relatively constant world prices in dollar terms. Soybean prices rise from 2007 onwards as world prices remain relatively high and the exchange rate depreciates over time.



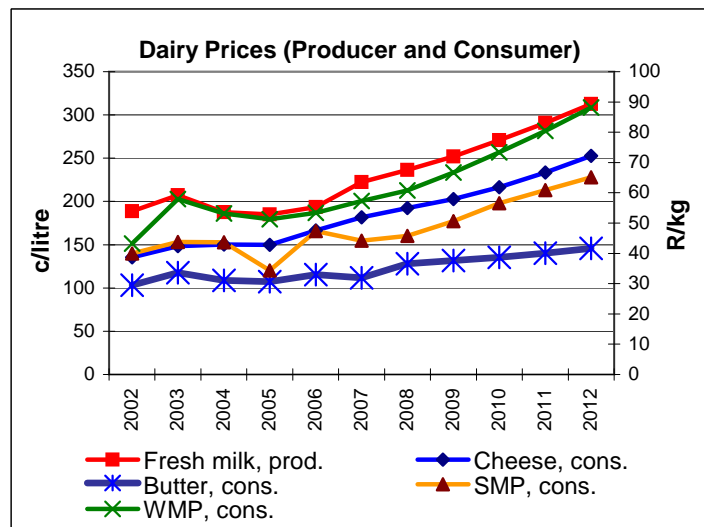
## Meat Prices

The demand for meat has grown at a tremendous pace over the past three years. Changing consumer preferences in terms of substituting grain products for meat and increasing real disposable income levels are projected to support the increase in demand for all types of meat products and subsequently increase meat prices over the long run. Whereas lamb prices will grow constantly over the baseline, beef, pork and chicken prices will follow a cyclical trend. The projected depreciating exchange rate partly mitigates the pressure of imports of meat products on domestic meat prices.



## Dairy Prices

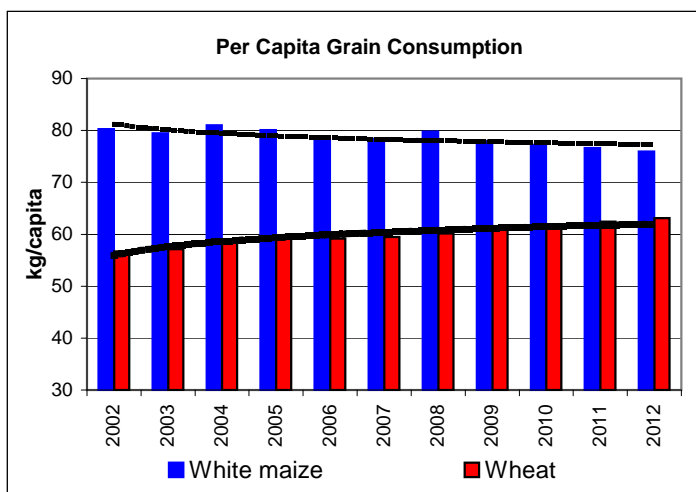
During 2005, dairy prices decreased in response to an appreciation of the exchange rate. However, local shortages due to declining dairy production in combination with a depreciation in the exchange rate and high world prices will lead to higher domestic prices of dairy products in 2007. The projected increasing trend can be ascribed to lower fresh milk production due to input prices rising faster than output prices, an increase in per capita consumption of dairy products, and more expensive imports caused by a depreciating exchange rate. The increasing dairy price trend is projected to continue over the baseline period as dairy processors react to keep dairy farmers in production.



# Executive Summary

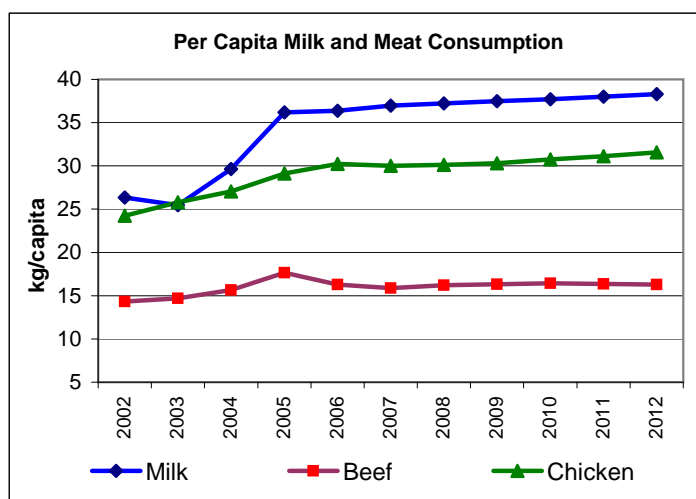
## Per Capita Grain Consumption

The per capita consumption of maize (maize meal) is projected to decrease over the baseline period. However, the per capita consumption of wheat (bread) is projected to increase at a decreasing rate over the baseline period. This increase in per capita bread consumption can mainly be attributed to urbanization and the projected increase in disposable income for a larger share of the population. Rice appears to be a strong substitute for maize meal and bread as consumer incomes increase and preferences change.



## Per Capita Milk and Meat Consumption

The per capita consumption of beef is projected to remain relatively constant with a marginal increase from 2008 onwards. Consumers are expected to increase per capita consumption of both chicken and milk at an increasing rate because of economic development and urbanization. Actual statistics show that the consumption of dairy products has grown by 26% since 2003, outpacing the growth in consumption of all of the meats.



# Baseline Policy Assumptions

The baseline contains all currently agreed policies on an international as well as domestic level. In this case it implies that all FAPRI baseline projections of international commodity prices were simulated under the assumption that all countries will adhere to their bilateral and multilateral trade agreements and their WTO commitments. In the case of South Africa, current policy is maintained. With the deregulation of agricultural markets in the mid-nineties all the non-tariff trade barriers and most direct subsidies were replaced by tariff barriers. In the case of maize variable import tariffs were introduced and for wheat the variable import tariff dispensation was replaced by a 2% ad valorem tariff in 2006. Simple ad valorem tariffs are applied in the case of oilseeds. In the case of meat and dairy products, a combination of fixed rate tariffs and/or ad valorem tariffs was implemented. The projected tariff levels, as derived from the FAPRI baseline projections of world commodity prices, are presented in the table below.

In the case of biofuels BFAP choses to divert from the usual baseline "constant policy" convention. Although the South African government has committed itself to making processes that usually contribute to global warming more efficient and less pollutant by the signing of the Kyoto protocol, no policy has been finalized on how exactly this will be achieved. The assumption is made that government will introduce E2 and B1 mandatory blending requirements in 2009. One critical assumption is that the biofuel prices will trade as floating prices and will not be fixed to the fossil fuel prices. This allows biofuel prices to trade above fossil fuel prices as domestic demand increases, which makes the production of biofuels economically feasible. The first production is expected to flow in 2010. It is assumed that a preliminary domestic production target of 300 million litres of biofuels is to be reached by 2012. For this baseline only maize, sugar, soybeans and sunflower were included as possible feedstock. For a complete analysis and discussion of the possible impact of the biofuel industry on the agricultural sector as well as various possibilities regarding the feasibility of the biofuels industry, please refer to our website at [www.bfap.co.za](http://www.bfap.co.za).

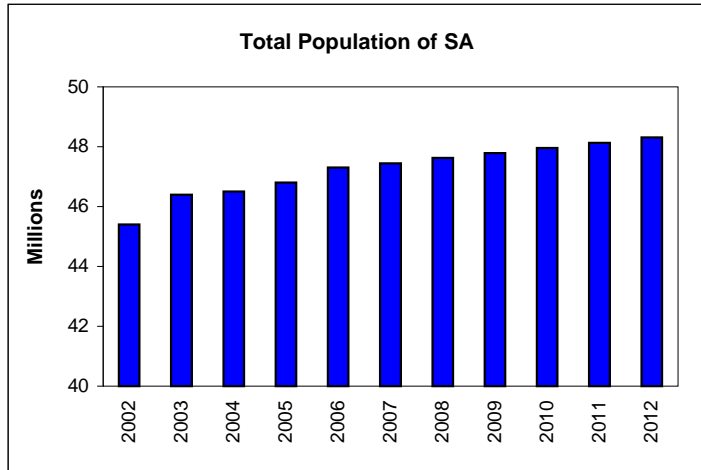
	2005	2006	2007	2008	2009	2010	2011	2012
<b>R/ton</b>								
Maize import tariff: ref.price = US\$ 110	45	0	<b>0</b>	0	0	0	0	0
Wheat import tariff: 2% of fob	19	28	<b>30</b>	32	34	36	38	40
Sunflower seed import tariff: 9.4% of fob	187	208	<b>254</b>	268	284	291	301	308
Sunflower cake import tariff: 6.6% of fob	50	57	<b>63</b>	68	72	74	77	79
Sorghum import tariff: 3% of fob	18	33	<b>36</b>	38	41	43	45	47
Soybean import tariff: 8% of fob	131	156	<b>178</b>	202	215	224	233	241
Soybean cake import tariff: 6.6% of fob	89	100	<b>107</b>	122	127	131	136	141
<b>tons</b>								
Cheese, TRQ quantity	1199	1199	<b>1199</b>	1199	1199	1199	1199	1199
Butter, TRQ quantity	1167	1167	<b>1167</b>	1167	1167	1167	1167	1167
SMP, TRQ quantity	4470	4470	<b>4470</b>	4470	4470	4470	4470	4470
WMP, TRQ quantity	213	213	<b>213</b>	213	213	213	213	213
<b>percentage</b>								
Cheese, in-TRQ	19.0%	19.0%	<b>19.0%</b>	19.0%	19.0%	19.0%	19.0%	19.0%
Butter, in-TRQ	15.8%	15.8%	<b>15.8%</b>	15.8%	15.8%	15.8%	15.8%	15.8%
SMP, in-TRQ	19.2%	19.2%	<b>19.2%</b>	19.2%	19.2%	19.2%	19.2%	19.2%
WMP, in-TRQ	19.2%	19.2%	<b>19.2%</b>	19.2%	19.2%	19.2%	19.2%	19.2%
<b>c/kg</b>								
Cheese, above TRQ rate: 500c/kg	500	500	<b>500</b>	500	500	500	500	500
Butter, above TRQ rate: 500c/kg	500	500	<b>500</b>	500	500	500	500	500
SMP, above TRQ rate: 450c/kg	450	450	<b>450</b>	450	450	450	450	450
WMP, above TRQ rate: 450c/kg	450	450	<b>450</b>	450	450	450	450	450
Beef import tariff: max(40%*fob, 240c/kg)	490	510	<b>596</b>	601	629	650	682	721
Lamb Import Tariff: Max(40%* fob, 200c/kg)	431	392	<b>555</b>	571	575	572	563	595
Chicken import tariff: 220c/kg	220	221	<b>220</b>	220	220	220	220	220
Pork import tariff: max (15%* fob, 130c/kg)	130	130	<b>130</b>	130	134	152	167	166

# Macroeconomic Indicators

The baseline simulations are largely driven by the outlook for a number of key macroeconomic indicators. Projections for these key indicators are based on information provided by Global Insight.

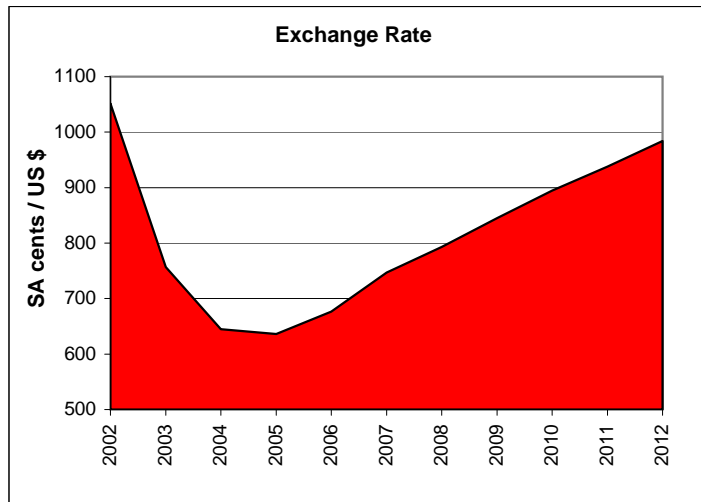
## Population

Population growth is a key driver in the demand for food products. The population projection underlying the 2007 baseline is that of a population increasing to a level of 48.3 million in 2012.



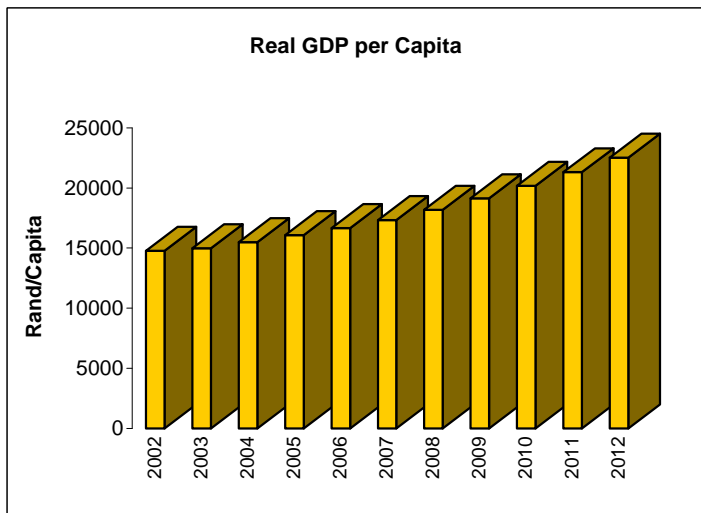
## Exchange Rates

The Rand/Dollar exchange rate remains a strong driving force of price levels and trade volumes of food products in the South African agricultural sector. During the past decade, significant exchange rate variability has been experienced. The baseline projects a gradually depreciating Rand of R7.47/US \$ in 2007 to levels of R9.84 against the US Dollar in 2012. Probabilistic simulations of the exchange rate are presented on pages 13 and 17 with the purpose of indicating possible impacts of a varying exchange rate on maize and wheat prices.



## GDP Per Capita

GDP per capita is a key variable driving the demand for food. The strong positive growth of the South African economy over the past couple of years contributed to the increase in real GDP per capita. Real GDP per capita is projected to increase over the baseline period to reach R22 500 in 2012. Some reasons for the improved growth were stable monetary and fiscal policy, a relatively stable world economy, as well as the materialization of a strong black middle socio-economic class. This stimulated consumer demand, leading to strong growth in some sectors of the economy. The baseline assumes economic growth will continue at an increasing rate.



# Macroeconomic Indicators

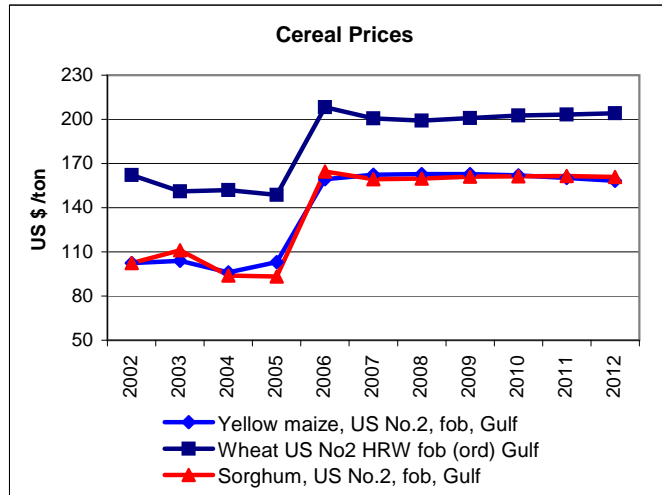
	2004	2005	2006	2007	2008	2009	2010	2011	2012	
			<b>Millions</b>							
Total population of SA	46.5	46.8	47.3	<b>47.4</b>	47.6	47.8	48.0	48.1	48.3	
			<b>SA cent/US \$</b>							
Exchange rate	645	636	677	<b>747</b>	793	845	894	938	984	
			<b>Rand (Constant 2000)</b>							
Real GDP per capita	15500	16069	16654	<b>17329</b>	18179	19127	20171	21305	22510	
			<b>Index (2000 = 100)</b>							
GDP deflator	132	138	147	<b>156</b>	162	168	175	183	191	
CPI: food	135	138	148	<b>156</b>	162	169	176	183	191	
PPI: agricultural goods	150	138	163	<b>172</b>	179	186	193	202	210	
			<b>Percentage</b>							
Weighted interest rate index	11.29	10.62	11.16	<b>12.50</b>	12.56	12.62	12.69	12.75	12.81	
			<b>US \$/barrel</b>							
Brent Crude Oil Price	36.9	50.4	60.4	<b>58.8</b>	59.1	58.2	57.9	56.4	54.8	

# World Prices

In addition to the outlook for macroeconomic indicators, the outlook on world agricultural commodity prices determines the path of the baseline projections. The **FAPRI 2007 U.S. and World Agricultural Outlook** were used for this baseline. (available at <http://www.fapri.missouri.edu>)

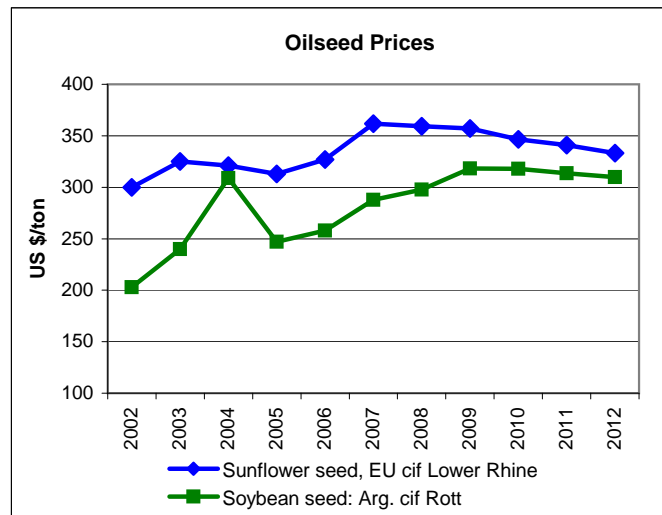
## Cereals

World wheat area is projected to recover in 2007/08 from the 2006/07 average. Increases in production, due to higher prices, are projected to occur in Argentina and Brazil. The world wheat price is expected to decrease marginally in 2007/08 but is projected to trade above \$200/ton for the rest of the baseline period. World maize area is expected to increase in 2007/08 as ethanol demand in the US increases even further. This increased demand for maize has increased the world maize price and it is expected to remain trading at these levels. The world sorghum price is expected to decrease in 2007/08 as world production increases. Important to note is that cereal prices have broken away from the typical 10-year average levels and it is projected that the prices will remain at these high levels over the baseline period.



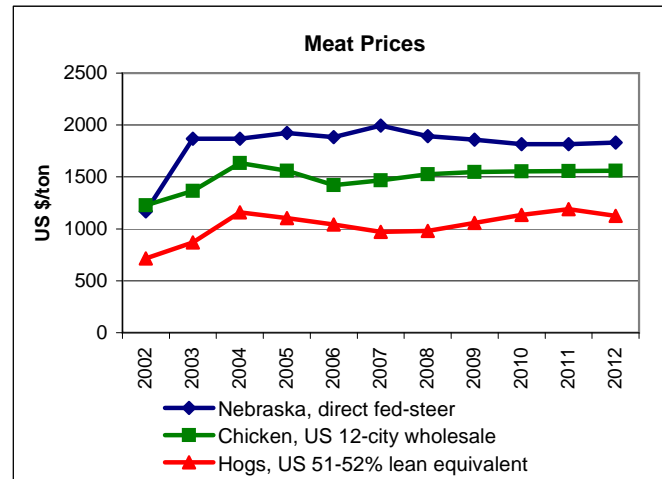
## Oilseeds

World soybean production is projected to decline slightly in 2007/08 as some acreage shifts to maize due to ethanol demand. The soybean price is expected to increase further in the coming seasons up to 2009 due to a stagnant supply and a growing world demand. Oilseed prices are expected to remain within their established relationships in the long run. The world production of sunflower seed is expected to increase annually due to expanding harvest areas in Bulgaria and Romania which will put the sunflower prices under pressure. The world sunflower seed price recovers in 2006/07 and is expected to maintain its traditional price relationship with other oilseeds in the future.



## Meat

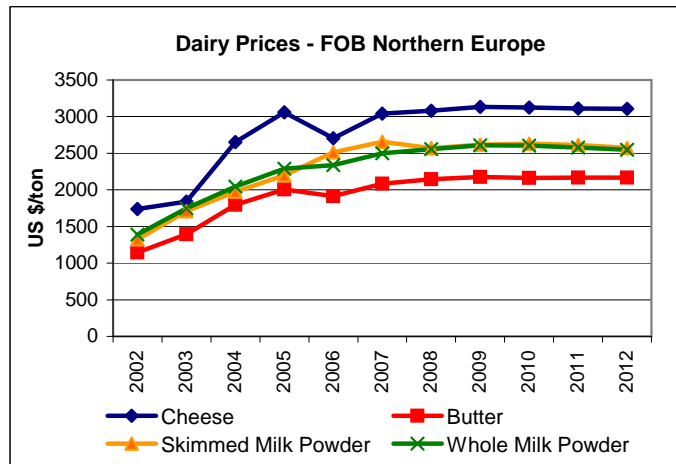
Confirmed Bovine Spongiform Encephalopathy (BSE) cases in North America and strict standards imposed by importing nations have softened the recovery in trade. World beef trade is expected to recover as more countries end their import bans. It is expected that beef trade will continue to grow at a healthy percentage in the next decade and that prices will continue to increase until 2008. Pork prices are expected to be affected as BSE and Avian influenza (AI) bans are slowly lifted. The poultry price is expected to strengthen during the next few years and then level off from 2009 onwards.



# World Prices

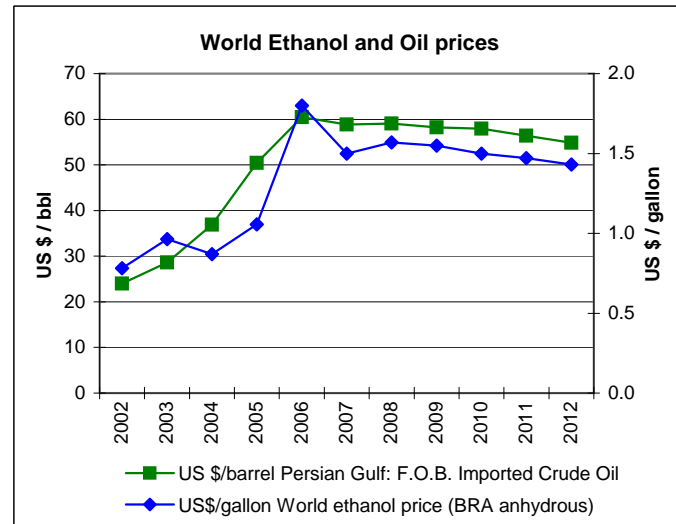
## Dairy

Income and population growth together with firm feed prices due to the fast growth in the biofuel market have put upward pressure on dairy prices over the past couple of years. The Australian dairy industry is set to recover from the recent drought. Although large world supplies of butter and cheese have decreased prices of these products in 2006, prices will recover and increase over the baseline. World whole milk powder trade is expected to grow and firm world prices are expected to promote the expansion of the dairy industry. In the EU, prices for dairy products above their support levels have allowed the EU Commission to reduce export subsidy levels and therefore EU exports have fallen, further boosting the world price.



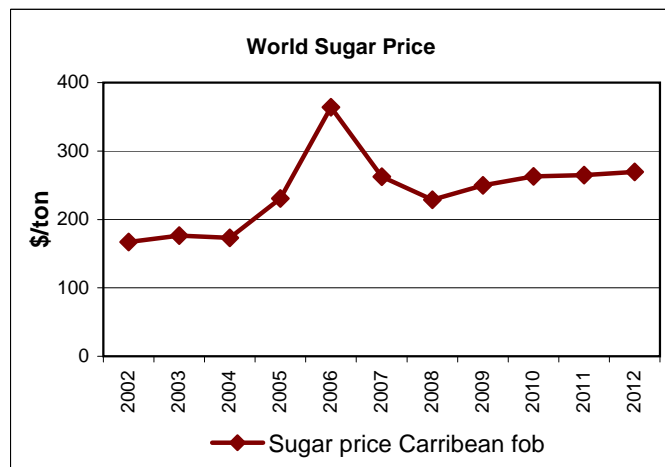
## Ethanol and Oil

The world production of ethanol is growing rapidly because of high petroleum prices and supportive policies. Projected ethanol prices decline from 2006 levels, in part because of a small projected decline in petroleum prices. Brazilian ethanol production is expected to increase, as is ethanol consumption due to the increased demand for flex-fuel vehicles (FFVs). Ethanol production in the EU, China and India is on the increase as all of these regions are trying to meet a faster increasing local and global demand.



## Sugar

The world sugar price increased by 51% in 2006 as stocks declined and expectations of a tight market continued. In 2007, the price is projected to decline by 24.7% and in 2008 by a further 12.7%. This can be attributed to a strong supply response to the high prices of 2006. However, from 2009 onwards a steady increase in prices is expected due to the reduction in European Union sugar supply and an increased demand for sugarcane in the production of ethanol.

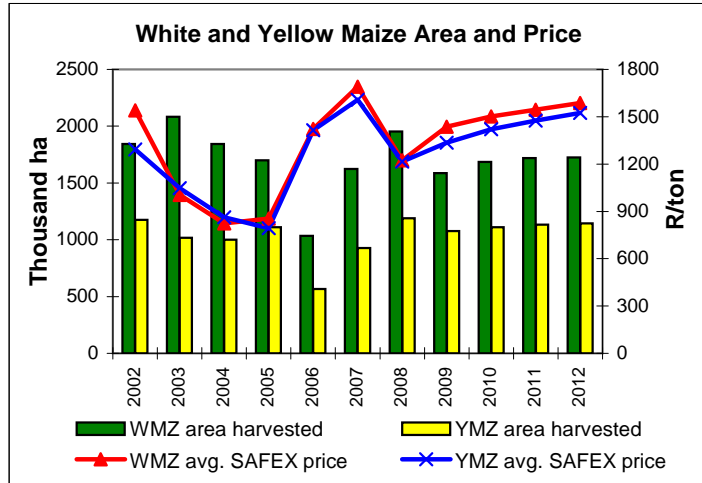


# White and Yellow Maize

**NOTE:** The split years are reported in the year where production takes place. E.g. The 2006/07 maize production season is reported in 2007.

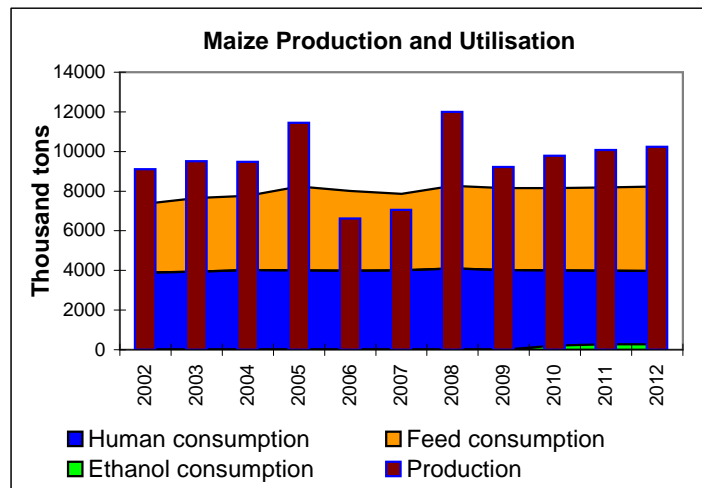
## Area and Price

The white and yellow maize areas harvested increased in the 2006/07 (reported in 2007) by 57% and 63%, respectively, mainly because of high producer prices and very low plantings in 2006. However the severe drought has affected the yields drastically and prices have increased even further. The high maize prices in 2007 will cause plantings to increase significantly in the 2007/08 production season which will drive down prices. During the remaining baseline period, area harvested is projected to remain relatively stable, with prices moving between R1200/ton and R1500/ton. Probabilistic maize price simulations are presented on pages 13 and 14.



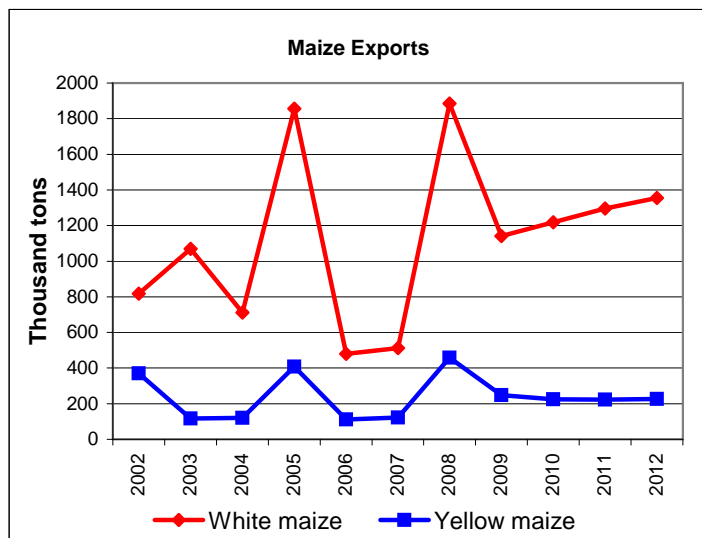
## Production and Utilisation

Maize production for 2007 is projected at 7.05 million tons due to the impact of the severe drought. Maize production is projected to increase above long-term average levels during 2007/08 after which it will decrease during 2008/09 and then slowly recover. Human consumption is projected to decrease slightly, while animal feed consumption is projected to increase slightly. Per capita consumption of maize declines as consumers substitute grain products for meat and other foodstuffs. The consumption of maize for ethanol production is projected at 271 000 tons in 2012.



## Trade

Maize exports are key in driving prices in the domestic maize market. Maize exports are projected to increase significantly in 2008 compared to 2007 in response to higher maize production. White maize exports are projected to increase towards the end of the baseline period, but yellow maize exports will decrease as the production of biofuels begins in 2009. During the baseline period, white maize exports are influenced mainly by levels of maize production in other SADC countries as well as changes in transport infrastructure and administration that either facilitate improved export efficiency or hamper exports.





# White and Yellow Maize

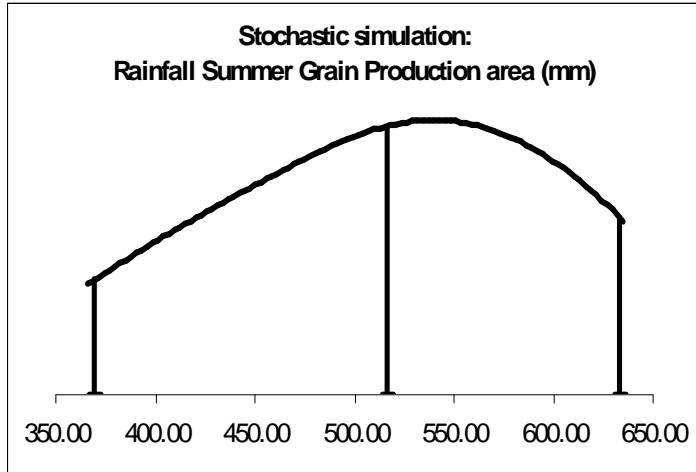
	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Area harvested</b>				<b>thousand hectares</b>					
White maize	1,842	1,700	1,033	<b>1,625</b>	1,955	1,586	1,686	1,720	1,725
Yellow maize	1,001	1,110	567	<b>927</b>	1,190	1,076	1,110	1,132	1,145
<b>Yield</b>				<b>t/ha</b>					
White maize	3.15	3.85	4.05	<b>2.69</b>	3.70	3.37	3.40	3.43	3.46
Yellow maize	3.67	4.42	4.29	<b>2.89</b>	4.00	3.60	3.65	3.69	3.73
<b>Production</b>				<b>thousand tons</b>					
White maize	5,805	6,541	4,187	<b>4,371</b>	7,237	5,349	5,736	5,903	5,970
Yellow maize	3,677	4,909	2,431	<b>2,683</b>	4,759	3,879	4,049	4,174	4,267
<b>Feed consumption</b>									
White maize	733	606	720	<b>630</b>	713	667	685	701	716
Yellow maize	3,012	3,633	3,300	<b>3,227</b>	3,452	3,468	3,460	3,495	3,554
<b>Human consumption</b>									
White maize	3,766	3,747	3,700	<b>3,721</b>	3,800	3,722	3,704	3,687	3,670
Yellow maize	262	251	295	<b>286</b>	307	302	299	297	296
<b>Ethanol consumption</b>									
Yellow maize	0	0	0	<b>0</b>	0	0	204	270	271
<b>Total domestic use</b>									
White maize	4,814	4,673	4,598	<b>4,529</b>	4,690	4,567	4,567	4,567	4,564
Yellow maize	3,531	4,266	3,770	<b>3,695</b>	3,942	3,952	4,144	4,243	4,303
<b>Ending stock</b>									
White maize	2,402	2,414	1,523	<b>853</b>	1,514	1,155	1,106	1,145	1,196
Yellow maize	746	1,341	809	<b>497</b>	856	723	708	738	777
<b>Exports</b>									
White maize	712	1,857	480	<b>512</b>	1,885	1,141	1,218	1,296	1,355
Yellow maize	120	409	112	<b>122</b>	459	248	225	222	226
<b>Imports</b>									
White maize	0	0	0	<b>0</b>	0	0	0	0	0
Yellow maize	219	360	920	<b>822</b>	0	189	306	320	301
<b>Average SAFEX prices</b>				<b>R/ton</b>					
White maize	823	854	1422	<b>1690</b>	1223	1437	1502	1545	1587
Yellow maize	863	794	1415	<b>1607</b>	1215	1336	1420	1475	1525

# Maize Stochastic Analysis

The deterministic results as presented in the preceding page do not take variations in rainfall and exchange rate into account. Hence, probability or stochastic simulations are done in order to take variation, and thus risk, into account. All the variables are presented in the form of probability distribution functions, with likely lowest value (left line), mean value (middle line) and likely highest value (right line). This does not imply that the variables cannot move outside of these values.

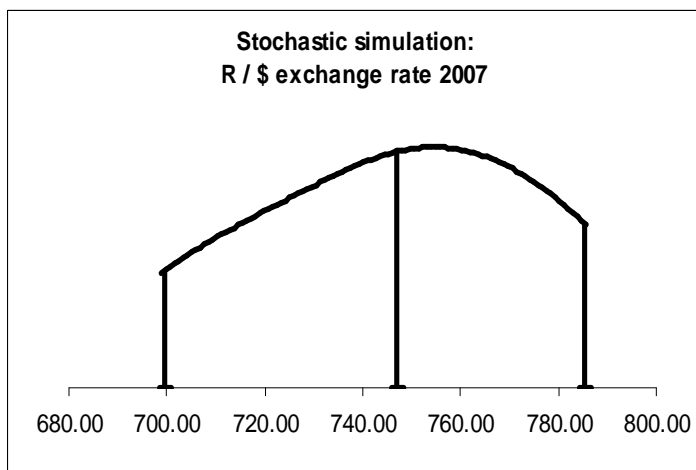
## Rainfall: Summer Grain Production Area

Rainfall statistics of the past 30 years indicate a high probability of 545 mm of rainfall over the summer grain production area during the months critical for grain production (December to March). The likely minimum average rainfall is 368 mm and the likely maximum average is 633 mm.



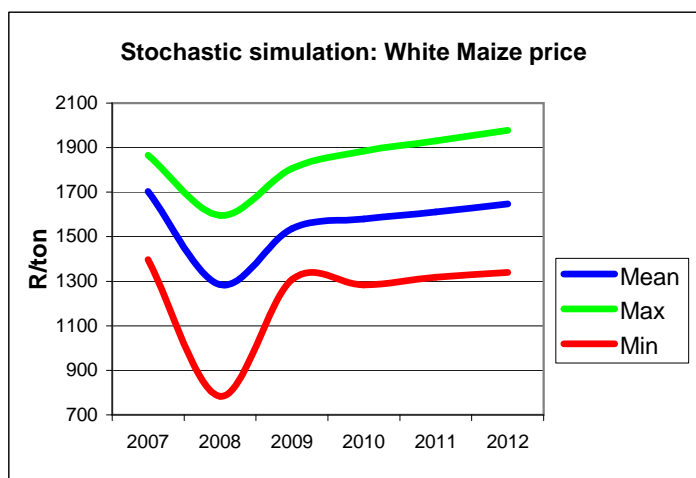
## Rand/US Dollar Exchange Rate

At present, international investors appear to be uncertain in terms of world economic growth prospects. Sources of uncertainty include oil prices, the value of the US dollar, the EU economy, and geopolitics in the Middle East. All these factors impact on investor perceptions, which in turn influence the level and variability in the exchange rate. Stochastic simulations were done taking a number of factors into account that could cause variability of the Rand/US \$ exchange rate. Results indicate that for 2007 on average, the Rand/US \$ rate could move between R6.98/US \$ and R7.85/ US \$ with a high probability of being R7.46/US \$ on average for 2007.



## White Maize

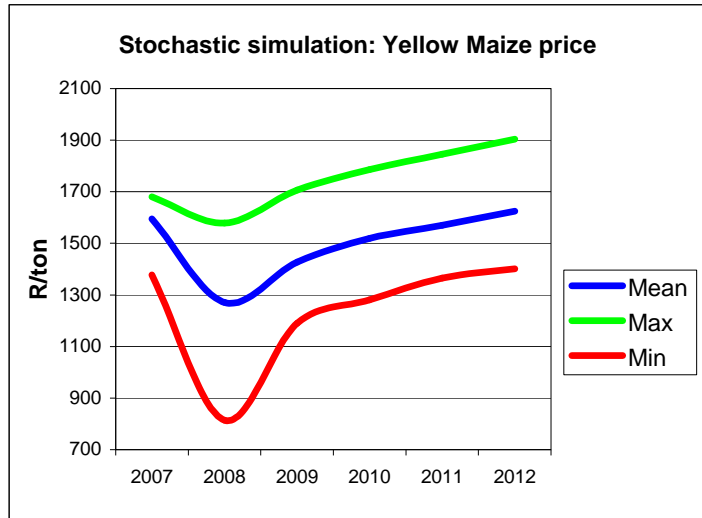
Given the possible variation in world maize prices, rainfall, exchange rate, and therefore white maize production, the white maize price can vary significantly during the period 2008 to 2012. Especially in 2008 the white maize price can trade in a very wide band because of the short crop in 2007. Given the assumptions on rainfall and exchange rate, a possible range within which the average annual white maize price can trade during the period 2008 to 2012 is between R784/ton and R1 977/ton. In response to a possible normal maize crop during 2008, white maize prices can decrease significantly. These are annual average Randfontein prices.



# Maize Stochastic Analysis

## Yellow Maize

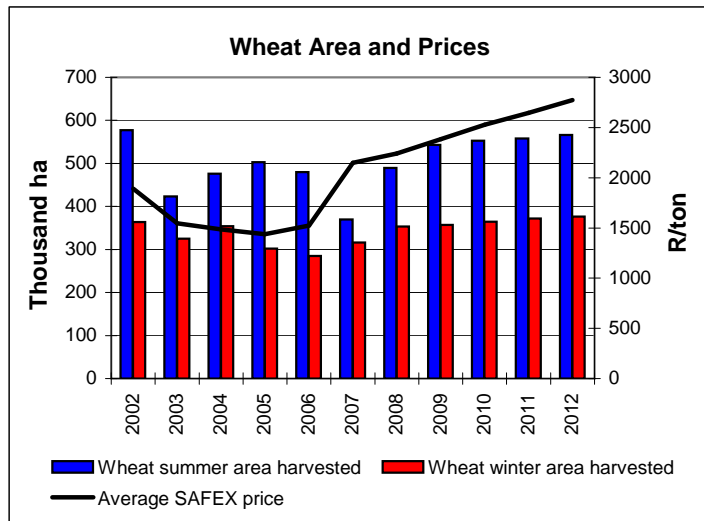
Based on assumptions regarding rainfall and exchange rate, along with the stochastic projections of the world maize prices, yellow maize prices will also vary significantly during the period 2008 to 2012. The average annual yellow maize price could move between R814/t and R1 904/t during the period given the assumptions. In response to a possible normal maize crop during 2008, yellow maize prices can decrease significantly. These prices do not indicate farm-gate prices, but annual average Randfontein prices. In 2011 the spread in yellow maize prices is projected to widen as biofuel production is introduced.



# Wheat

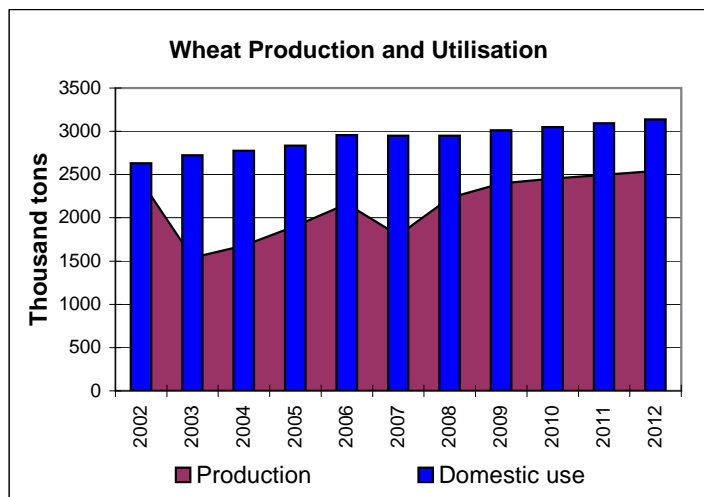
## Area and Price

The wheat summer area harvested during 2007 is projected to decrease sharply due to a lack of sufficient soil moisture in large parts of the Free State. During 2008 the wheat summer area increases significantly as much land is taken out of maize production and planted under wheat because of an anticipated decline in maize prices and increase in wheat prices. The area under winter wheat production increases by 11% in 2007 due to favourable weather conditions and a high price. Towards the end of the baseline period winter plantings are projected to increase marginally to reach 376 000 ha in 2012.



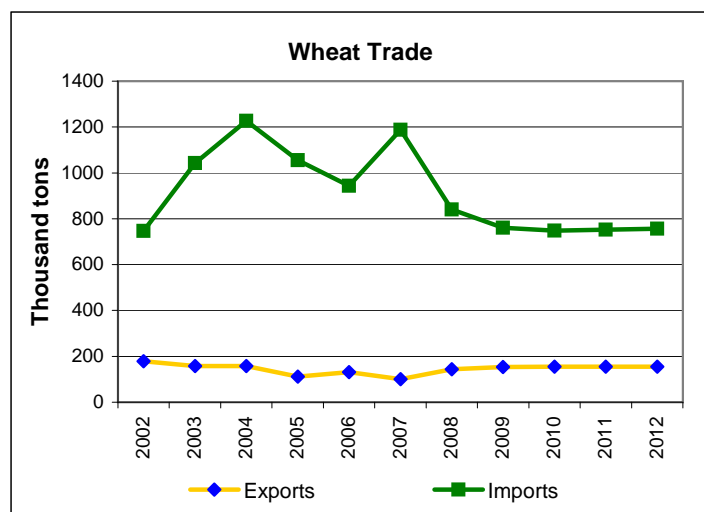
## Production and Utilisation

Wheat production is projected to decrease during 2007 because of a decrease in the summer area planted to wheat. Production is expected to increase steadily during the baseline period to reach a level of approximately 2.5 million tons in 2012. Domestic use increases marginally to levels around 2.9 million tons per annum.



## Trade

Wheat imports reached a maximum of 1.2 million tons in 2004, after which they started to decline. This declining trend in imports is projected to continue over the baseline period, although at a decreasing rate, as production grows relatively faster than human consumption. Increasing world wheat prices together with a depreciating exchange rate make imports more expensive relative to local wheat.



# Wheat

	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Area harvested</b>									
				<b>thousand hectares</b>					
Summer area	476	503	480	<b>370</b>	489	543	552	558	566
Winter area	354	302	285	<b>316</b>	353	357	365	372	377
<b>Average yield</b>									
				<b>t/ha</b>					
Summer area	2.44	2.50	3.02	<b>2.73</b>	2.75	2.77	2.78	2.80	2.82
Winter area	1.47	2.14	2.50	<b>2.50</b>	2.50	2.51	2.51	2.51	2.51
<b>Total wheat</b>									
				<b>thousand tons</b>					
Production	1,680	1,905	2,162	<b>1,799</b>	2,229	2,396	2,452	2,496	2,541
Feed consumption	23	12	138	<b>106</b>	63	69	69	69	68
Human consumption	2,734	2,781	2,797	<b>2,822</b>	2,865	2,923	2,960	3,004	3,050
Domestic use	2,773	2,833	2,955	<b>2,948</b>	2,948	3,011	3,049	3,092	3,138
Ending stocks	574	590	609	<b>547</b>	523	515	511	512	517
Exports	158	111	131	<b>101</b>	144	154	155	155	154
Imports	1,227	1,055	943	<b>1,188</b>	840	760	748	753	756
<b>Average SAFEX price</b>									
				<b>R/ton</b>					
	1,487	1,439	1,523	<b>2,148</b>	2,242	2,386	2,529	2,648	2,774

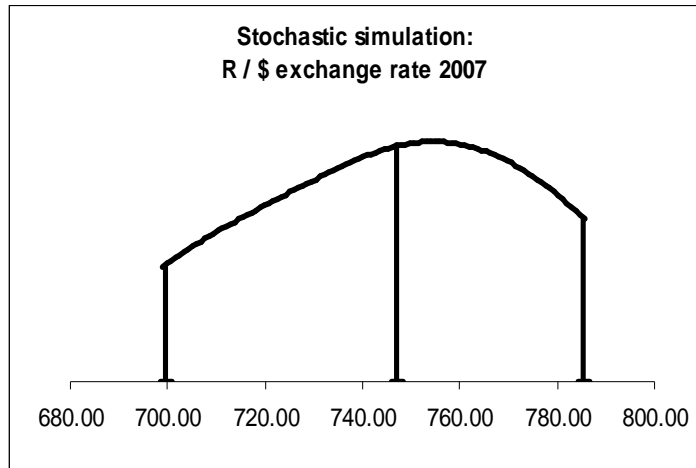
# Stochastic Analysis: Wheat 2007

For the wheat industry, a stochastic overview is provided specifically for the 2007/08 season and not over the whole baseline period. Three variables were identified that are likely to cause the most variability in the local wheat market namely the exchange rate, rainfall and the world price. All the variables are presented in the form of probability distribution functions, with likely lowest value (left line), mean value (middle line) and likely highest value (right line). This does not imply that the variables cannot move outside of these ranges.

## Exchange Rate

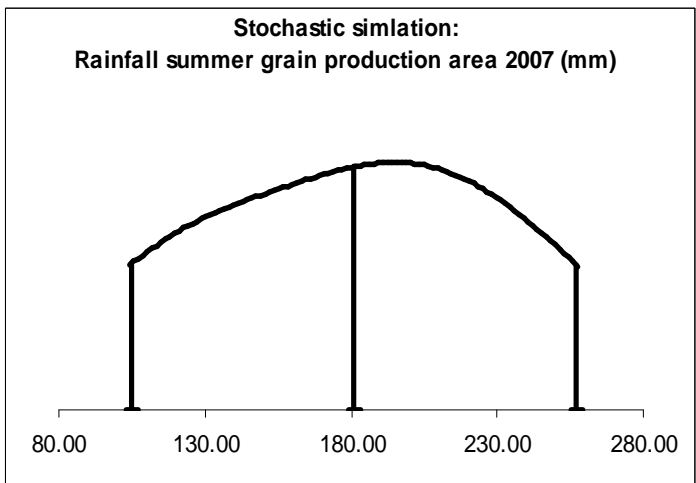
### Rand/US Dollar Exchange Rate

At present international investors appear to be uncertain in terms of world economic growth prospects. Sources of uncertainty include oil prices, the value of the dollar, the EU economy, and geopolitics in the Middle East. All these factors impact on investor perceptions, which in turn influence the level and variability in the exchange rate. Stochastic simulations were done by taking a number of factors into account that could cause variability of the Rand/US \$ exchange rate. Results indicate that for 2007 on average, the Rand/US \$ rate could move between R6.98/US \$ and R7.85/ US \$ with a high probability of being R7.46/US \$ on average for 2007.



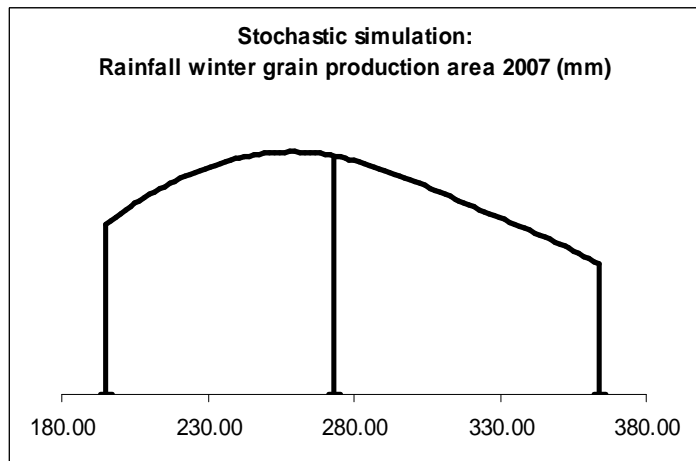
## Rainfall: Summer Rainfall Region

Rainfall statistics of the past 30 years indicate a high probability of 185 mm of rainfall over the critical months influencing wheat production in the summer rainfall region. The likely minimum rainfall is 103 mm and the maximum is 277 mm. Important to note is that this stochastic rainfall differs from the rainfall that was used in the stochastic analysis of white and yellow maize because the critical months that influence maize and wheat production are different.



## Rainfall: Winter Rainfall Region

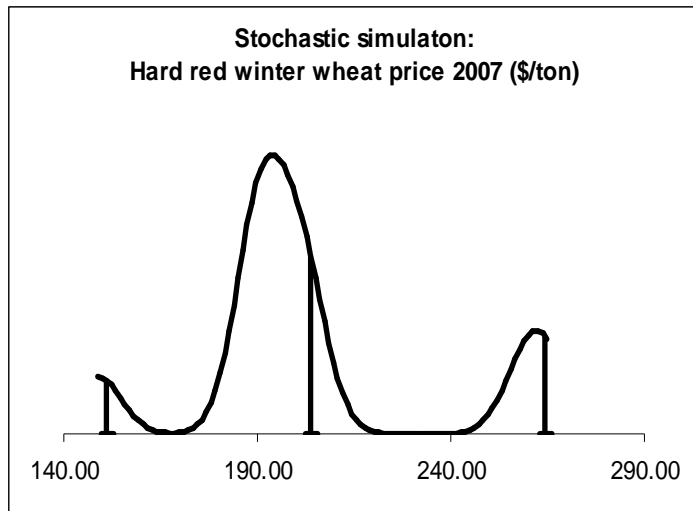
Rainfall statistics of the past 30 years indicate a high probability of 280 mm of rainfall over the critical months influencing wheat production in the winter rainfall region. The likely minimum rainfall is 195 mm and the maximum is 378 mm.



# Stochastic Analysis: Wheat 2007

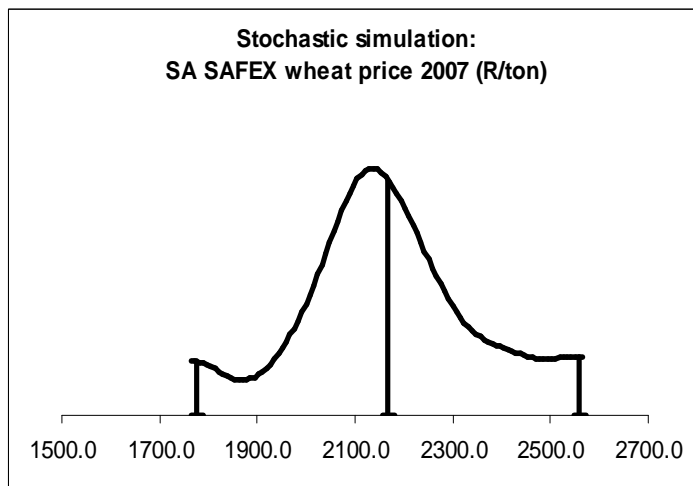
## US Hard Red Winter Wheat Price

The FAPRI 2007 baseline projects a price of \$200/ton for 2007. Taking the possible variability of the US hard red winter wheat price over the past 10 years into account the stochastic simulations show that international wheat prices could vary between \$146/ton and \$264/ton. However, taking the recent occurrence of drought in Australia into account as well as the impact of biofuel production, it is more likely that the international wheat prices will trade at the projected mean (\$203/ton) and higher for the current wheat production season.



## Wheat Price

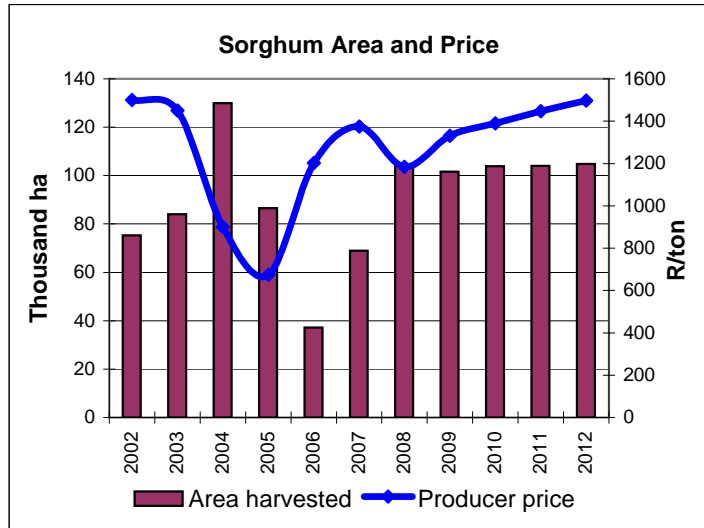
Due to variations in the exchange rate, rainfall and the world wheat price, it is likely that the SAFEX wheat price will vary between R1764/ton and R2567/ton. The stochastic simulation suggests that there is a high probability that the average wheat price for 2007 will trade at approximately R2167/ton.



# Sorghum

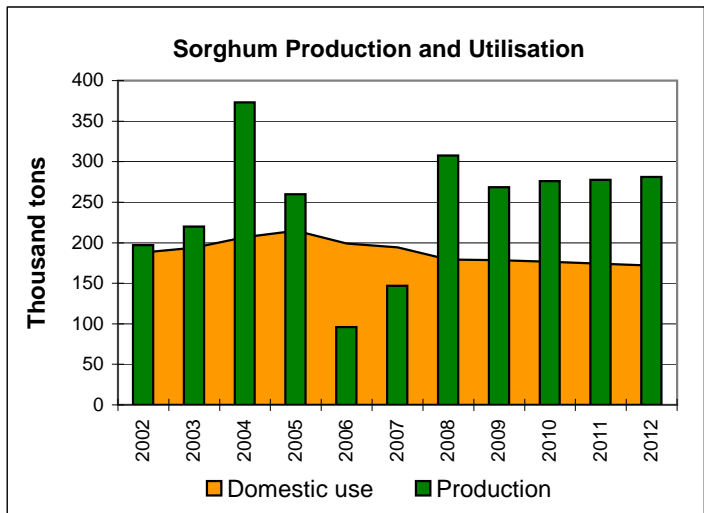
## Area and Price

During the past couple of years significant variation has occurred in the sorghum area harvested and sorghum prices. Maize is normally the dominant crop and, therefore, influences the area planted to sorghum. The sorghum price for 2007 is projected to increase significantly compared to 2006 due to a relatively small area planted to sorghum and the impact of drought. The sorghum area increases in 2008 due to higher prices in 2007. After decreasing again to levels just below R1200/ton in 2008 due to a larger crop, prices are projected to increase slightly from 2008 onwards, with area harvested remaining relatively stable.



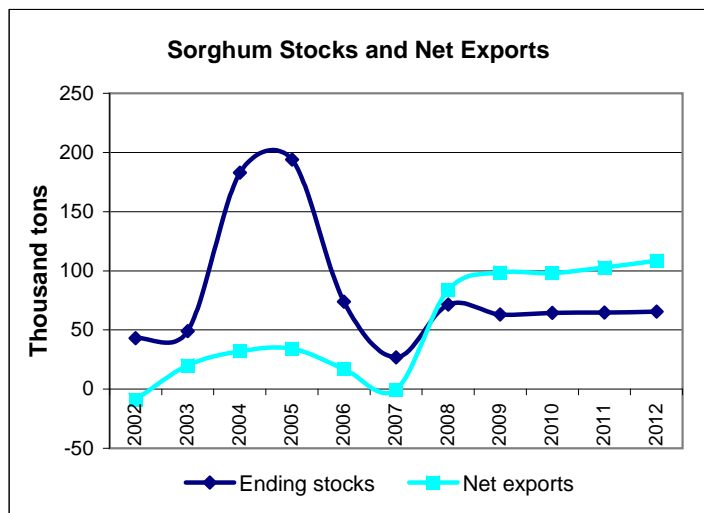
## Production and Utilisation

Although production has varied significantly during the past four years, it is projected that sorghum production will stabilize at approximately 270 000 tons per annum. Consumption is, however, decreasing over the baseline period as consumer preferences change towards premium and other beers, away from traditional beers.



## Stocks and Trade

The significant decrease in production of sorghum during 2006 and 2007 will drive down stocks to less than 30 000 tons. As domestic consumption constantly decreases over time, exports will grow to 116 000 tons in 2012.





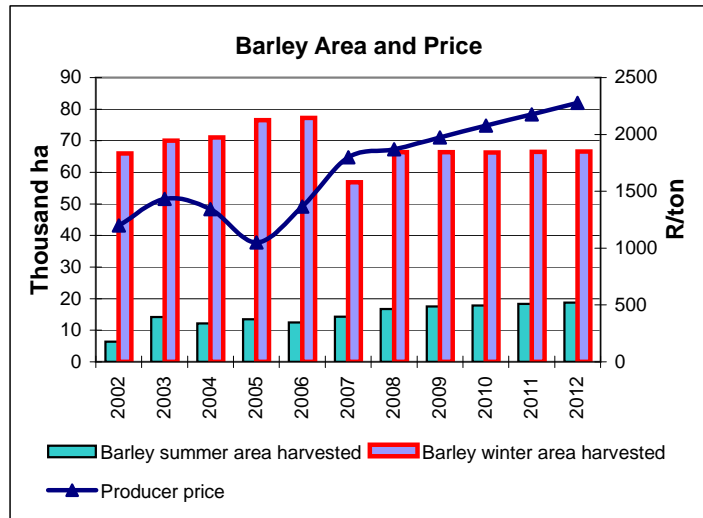
# Sorghum

	2004	2005	2006	<b>2007</b>	2008	2009	2010	2011	2012	
			<b>thousand hectares</b>							
Area harvested	130	87	37	<b>69</b>	104	102	104	104	105	
			<b>t/ha</b>							
Average yield	2.87	3.01	2.58	<b>2.13</b>	2.96	2.64	2.66	2.67	2.68	
			<b>thousand tons</b>							
Production	373	260	96	<b>147</b>	308	269	276	278	281	
Feed consumption	10	18	13	<b>18</b>	3	4	5	5	5	
Human consumption	168	169	171	<b>167</b>	166	164	162	159	156	
Domestic use	207	215	199	<b>194</b>	179	178	177	174	172	
Ending stocks	183	194	74	<b>27</b>	71	63	64	65	66	
Net exports	32	34	17	<b>0</b>	84	99	98	103	109	
			<b>R/ton</b>							
Average producer price	900	675	1,202	<b>1,375</b>	1,184	1,330	1,390	1,447	1,497	

# Barley

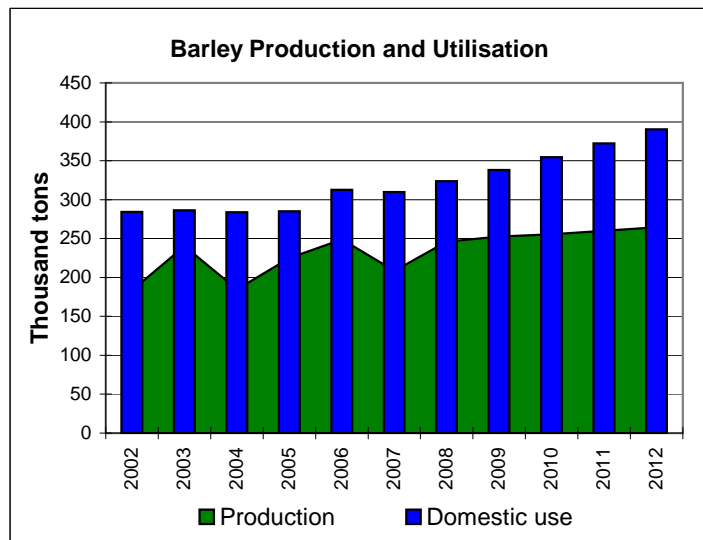
## Area and Price

Barley is mainly produced for beer production in South Africa, and therefore has to compete against high quality imported barley from mainly Canada and Australia. Barley competes with wheat in the Southern Cape and the area planted to barley is projected to remain relatively constant over the long run due to fixed rotations in the plantings of winter crops. However, in 2007 some barley land will be substituted for wheat as the projected wheat prices are higher than the projected barley prices. Barley plantings in the irrigation areas are projected to increase steadily over the baseline to more than 18 000 ha. The barley price is projected to increase due to a depreciating exchange rate, making imports more expensive.



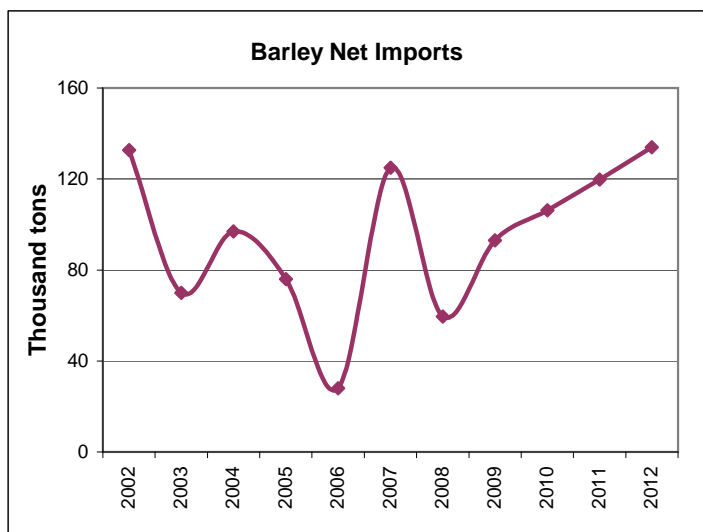
## Production and Utilisation

Domestic use of local barley is projected to remain fairly constant until 2008 and then grow steadily from 2009 onwards. The production of barley also increases towards the end of the baseline as barley plantings increase in the irrigation areas. The use of imported barley, whose characteristics differ from South African barley, is expected to increase at a faster rate than the demand for local barley. Imported barley is mainly used in the production of premium beers.



## Trade

Demand for premium beers is expected to increase during the baseline period due to economic development and urbanization. This impacts on the demand for imported barley mainly from Canada and Australia of which the characteristics differ from local barley. Net imports are, therefore, projected to increase over the baseline period.



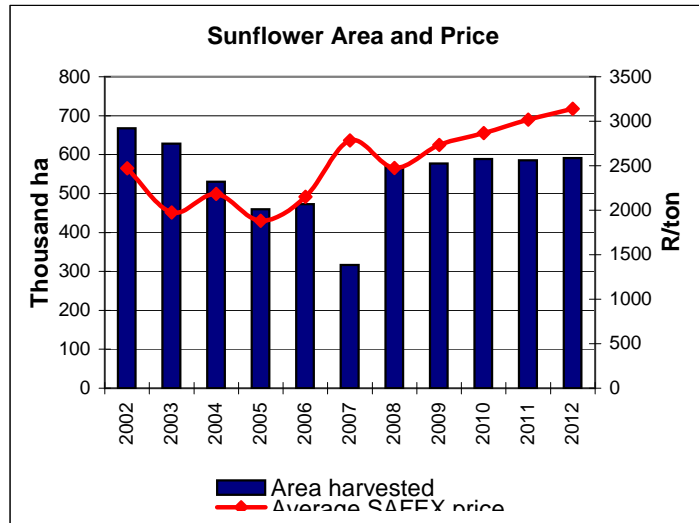
# Barley

	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Area harvested</b>				<b>thousand hectares</b>					
Summer area	12.2	13.5	12.5	<b>14.3</b>	16.7	17.6	17.9	18.3	18.7
Winter area	71.0	76.5	77.2	<b>56.8</b>	66.4	66.4	66.3	66.5	66.6
<b>Average yield</b>				<b>t/ha</b>					
Summer yield	5.78	5.20	5.50	<b>5.23</b>	5.26	5.29	5.32	5.35	5.37
Winter yield	1.61	2.02	2.34	<b>2.36</b>	2.38	2.40	2.42	2.44	2.46
<b>Total Barley</b>				<b>thousand tons</b>					
Production	185	225	249	<b>209</b>	246	252	256	260	264
Domestic use	284	285	313	<b>310</b>	324	338	354	372	390
Human consumption	262	265	284	<b>286</b>	299	313	329	346	364
Ending stock	100	116	80	<b>104</b>	86	93	101	108	116
Net imports	97	76	28	<b>125</b>	60	93	106	120	134
<b>Average producer price</b>				<b>R/ton</b>					
	1,342	1,050	1,365	<b>1,800</b>	1,870	1,975	2,079	2,175	2,279

# Sunflower

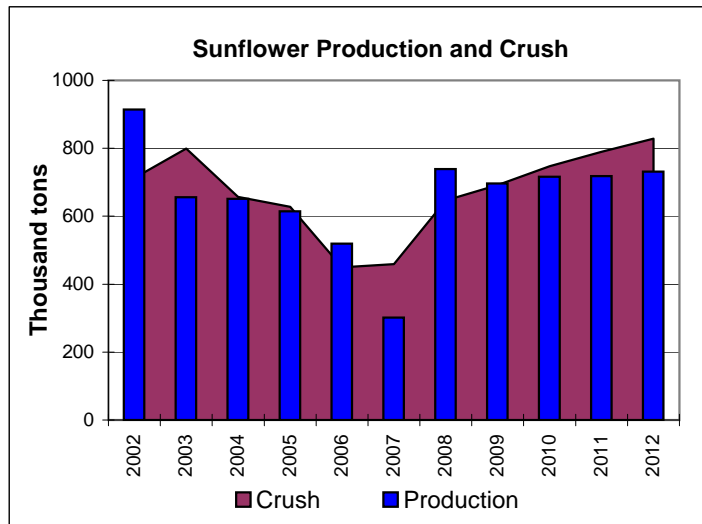
## Area and Price

The sunflower price for 2007 is projected to increase sharply compared to 2006 levels. The price increase is mainly caused by the drought, and extremely high international prices due to the demand for vegetable oil in the production of biofuels. Area harvested is projected to increase during 2008. Because of increased production, prices are expected to decrease to around R2400/ton. Area is expected to remain relatively constant during the remaining baseline period. Prices are expected to follow an increasing trend due to a depreciating exchange rate as well as high world prices of sunflower oil and cake.



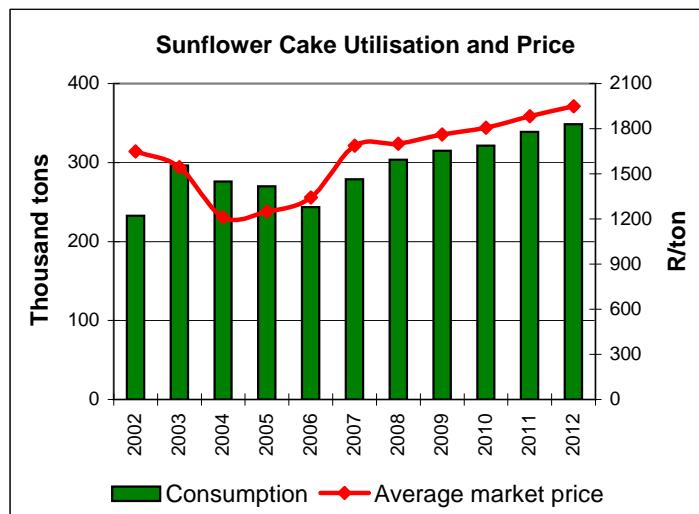
## Seed Production and Utilisation

Sunflower seed utilisation is projected to exceed the production of seed by local crushers in 2010 when the production of biodiesel from sunflower seed is expected to gain momentum. Despite the fact that South Africa has excess crushing capacity, local crushers have to compete against imports of sunflower crude oil. This fine balance between imports and local crushing is heavily influenced by the exchange rate. Local crushing is projected at more than 800 000 tons by 2012 with just over 110 000 tons of seed being imported.



## Cake Utilisation and Price

Currently, sunflower cake trades at approximately R1780/ton, which is higher than the projected average price for 2007. It is expected that local cake prices will be supported by a constant increase in the consumption of cake in the feed market and the projected increase in the soybean cake price. These products compete in the protein feed market. Although sunflower cake can be utilised in feed rations as a less expensive source of protein, the high fibre content limits the amount used. For example broiler rations do not include more than 7% sunflower cake. Despite this, cake consumption is projected to increase steadily to reach 349 000 tons in 2012.



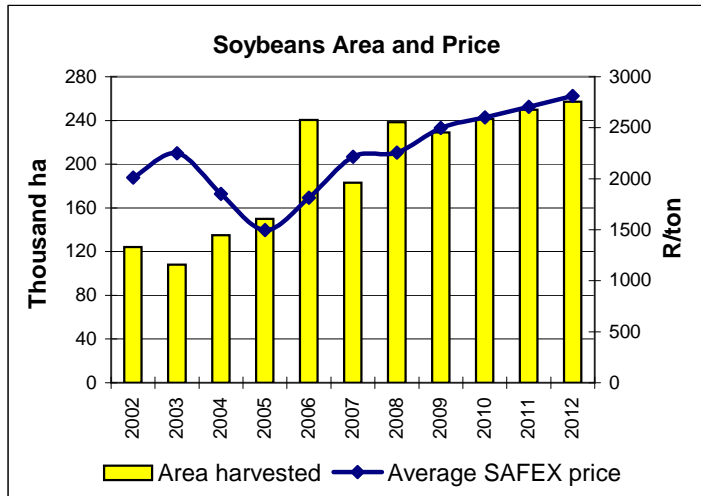
# Sunflower

	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Sunflower seed</b>									
				<b>thousand hectares</b>					
Area harvested	530	460	472	<b>316</b>	569	577	588	585	591
				<b>t/ha</b>					
Average yield	1.23	1.34	1.10	<b>0.95</b>	1.30	1.21	1.22	1.23	1.24
				<b>thousand tons</b>					
Production	651	614	519	<b>302</b>	739	696	716	718	732
Crush	657	628	449	<b>459</b>	647	692	747	790	828
Domestic use	674	641	460	<b>471</b>	659	704	759	802	840
Ending stock	120	100	162	<b>6</b>	139	123	129	129	133
Net Imports	18	6	3	<b>13</b>	54	-8	49	84	112
				<b>R/ton</b>					
Average SAFEX price	2,185	1,882	2,150	<b>2,783</b>	2,474	2,735	2,867	3,018	3,139
<b>Sunflower cake</b>									
				<b>thousand tons</b>					
Production	276	264	189	<b>193</b>	272	291	314	332	348
Domestic use	276	270	243	<b>279</b>	303	315	321	339	349
Net imports	32	6	55	<b>134</b>	95	91	79	82	79
				<b>R/ton</b>					
Average market price	1,210	1,250	1,343	<b>1,688</b>	1,699	1,762	1,807	1,882	1,949

# Soybeans

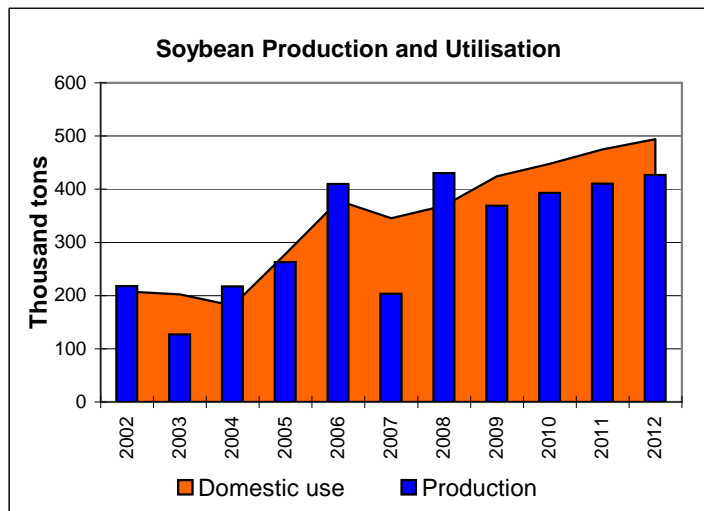
## Area and Price

The harvested soybean area increased significantly during 2006. Despite the increase in area, prices increased due to the increased demand for soybeans to use as animal feed and the big increase in international soybean seed and cake prices. Area harvested is projected to follow an increasing trend, with the SAFEX prices projected to increase from R2256/ton in 2008 to R2810/ton in 2012.



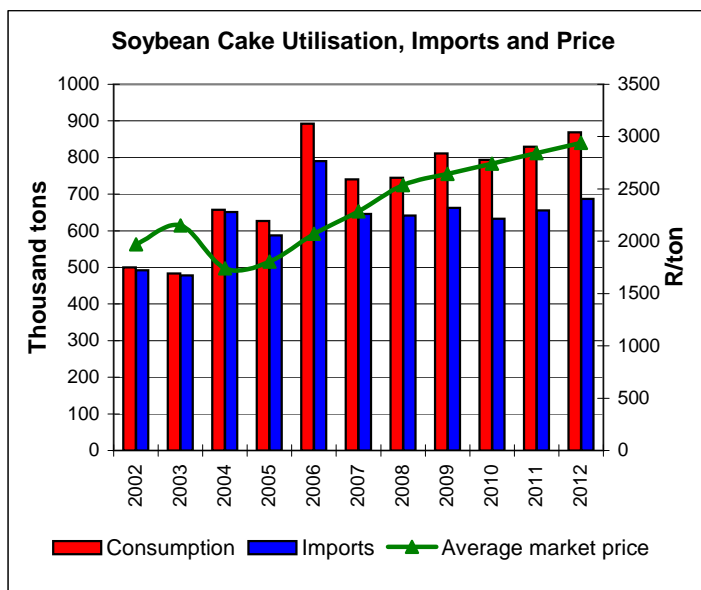
## Seed Production and Utilisation

Soybean production for 2007 is projected at 203 000 tons, which implies a reduction from 2006 levels of almost 50%. Production is projected to jump to levels above 400 000 tons in 2008 as the relative profitability of soybean production compared to maize has improved a great deal in 2007. Production is fairly stable around levels of 400 000 tons per annum during the remaining baseline period. Domestic consumption is projected to increase by more than 50 000 tons in 2009 when the production of biofuels from soybeans is likely to commence.



## Cake Utilisation and Price

Soybean cake consumption is projected to increase to 869 200 tons in 2012. Domestic cake production only amounts to approximately 10% of local consumption per annum. Therefore, the domestic cake price is a function of the world price and the exchange rate. As the exchange rate depreciates and the world price increases over the baseline period, the domestic price of cake will increase to reach a level of R2940/ton in 2012. The local production of soybean cake will increase to around levels of 180 000 tons with the anticipated introduction of biofuels.



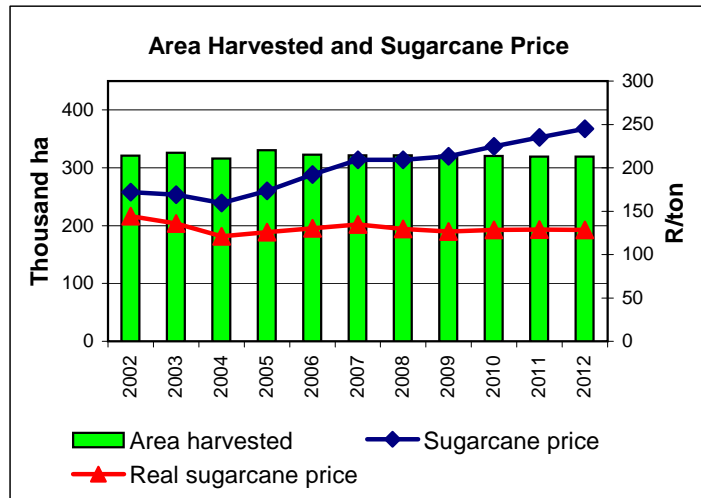
# Soybeans

	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Soybeans</b>				<b>thousand ha</b>					
Area harvested	135	150	241	<b>183</b>	238	229	241	250	257
				<b>t/ha</b>					
Average yield	1.61	1.75	1.70	<b>1.11</b>	1.80	1.61	1.63	1.64	1.66
				<b>thousand tons</b>					
Production	217	263	410	<b>203</b>	430	369	393	410	427
Feed consump.full fat	128	212	241	<b>218</b>	230	227	235	244	254
Crush	12	54	128	<b>118</b>	129	185	201	218	228
Domestic use	181	279	378	<b>345</b>	369	424	448	475	494
Ending stock	101	90	131	<b>128</b>	134	132	131	131	132
Net imports	16	5	9	<b>140</b>	-56	53	54	65	68
				<b>R/ton</b>					
Average SAFEX price	1,850	1,497	1,815	<b>2,214</b>	2,256	2,497	2,601	2,705	2,810
<b>Soybean cake</b>				<b>thousand tons</b>					
Production	9	43	102	<b>94</b>	103	148	161	175	182
Domestic use	657	627	892	<b>740</b>	744	811	793	830	869
Net imports	651	587	790	<b>646</b>	641	663	633	655	687
				<b>R/ton</b>					
Average market price	1,740	1,805	2,070	<b>2,286</b>	2,535	2,643	2,743	2,841	2,941

# Sugarcane and Sugar

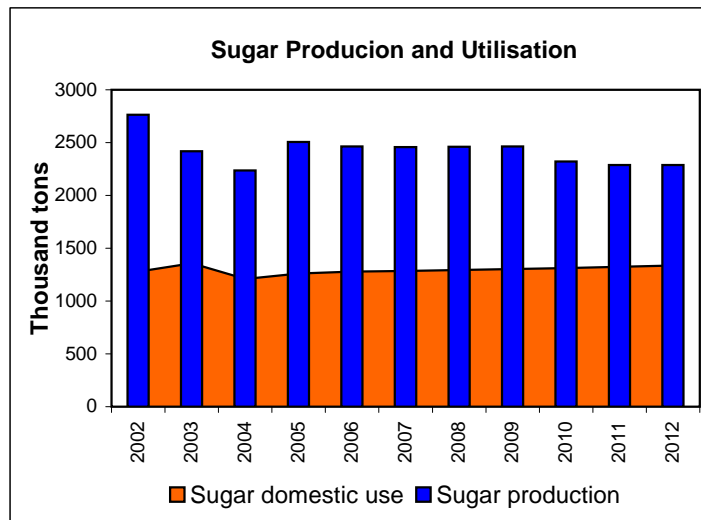
## Sugarcane Area and Price

The area harvested is expected to continue the modest declining trend of the past five years over the baseline period. The slight reduction in area planted and harvested can be attributed to a reduction in the real sugarcane price as well as increasing costs of inputs. Although real prices did increase marginally in 2006 and 2007, a downward trend is projected from 2008 onwards.



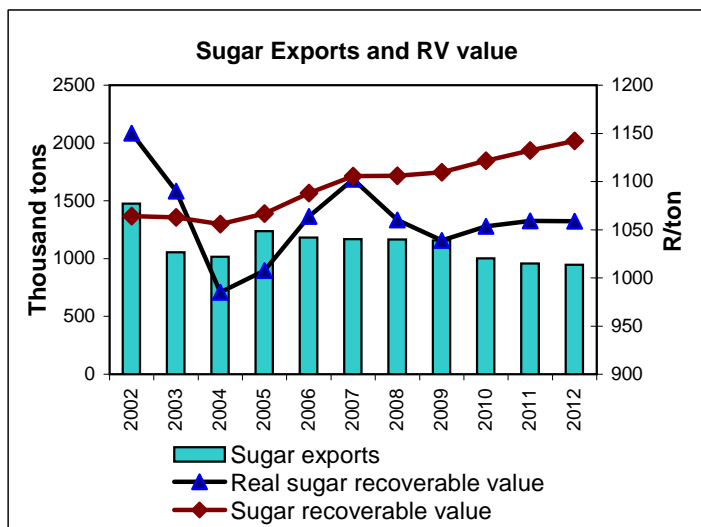
## Sugar Production and Utilisation

Production of sugar is expected to remain fairly constant over the next four years. A reduction in area planted is offset by an increase in yields. Yields are expected to increase due to technological advances and development of new cultivars. Consumption is expected to increase slowly to reach 1.33 million tons in 2012.



## Sugar Exports and Recoverable Value (RV)

Sugar production in South Africa is used to satisfy the domestic market first and the residual of the production is then exported. Exports remain relatively constant over the baseline period, as domestic consumption and production are expected to remain relatively constant. The RV price is a function of the domestic sugar price, the export price and domestic production. As the production is expected to remain constant over the next four years, the increase in the nominal RV price can be attributed to an increase in the nominal domestic price of sugar and an increasing export price. The real RV price is projected to decline from 2007 to 2009 and then increase from 2010 to 2012.





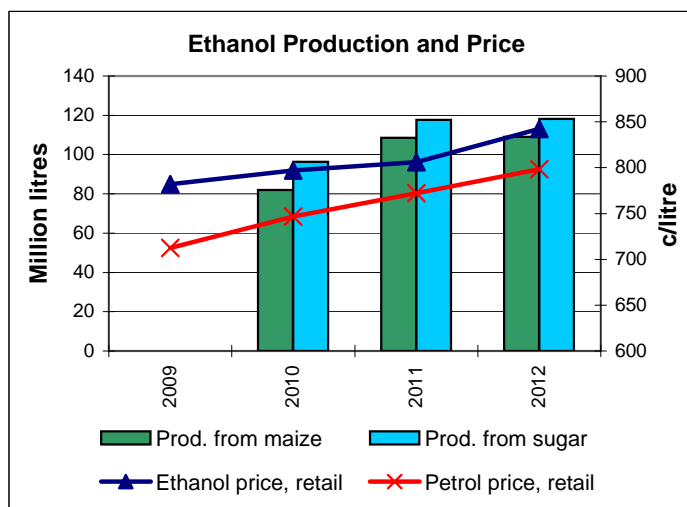
# Sugarcane and Sugar

	2004	2005	2006	<b>2007</b>	2008	2009	2010	2011	2012
<b>Sugar</b>									
				<b>thousand hectares</b>					
Area harvested	316	331	323	<b>321</b>	321	321	320	320	319
				<b>thousand tons</b>					
Production	2,235	2,507	2,463	<b>2,458</b>	2,462	2,463	2,320	2,288	2,289
Domestic use	1,210	1,262	1,277	<b>1,284</b>	1,293	1,302	1,313	1,324	1,337
Exports	1,016	1,239	1,181	<b>1,169</b>	1,165	1,156	1,003	959	947
				<b>R/ton</b>					
Ave. sugarcane price	160	174	192	<b>209</b>	209	213	225	235	245
Recoverable value	1,297	1,390	1,568	<b>1,714</b>	1,715	1,748	1,846	1,935	2,018

# Biofuels

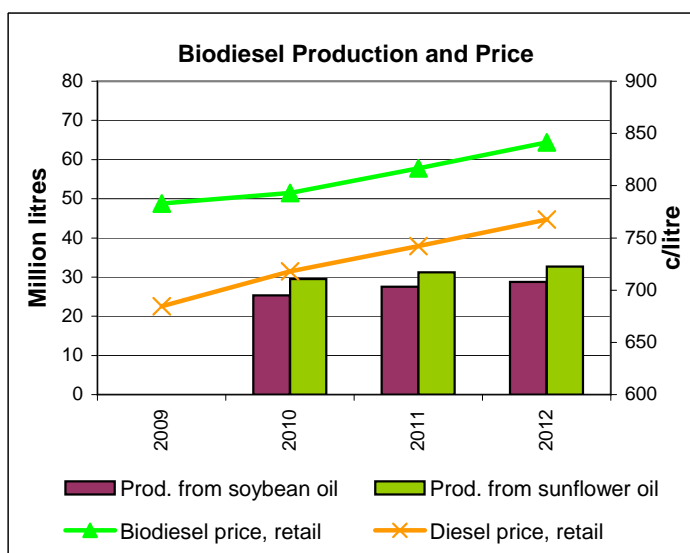
## Ethanol

An E2 blending requirement implies that approximately 220 million litres of ethanol will be required domestically. It is projected that local production will reach this level in 2011 with 118 million litres of ethanol produced from sugar and 109 million litres from maize. Under the assumption of floating ethanol prices it is projected that ethanol prices will initially trade at 95% of the petrol price but as soon as the mandatory blending requirements are introduced, ethanol prices will trade above petrol prices.



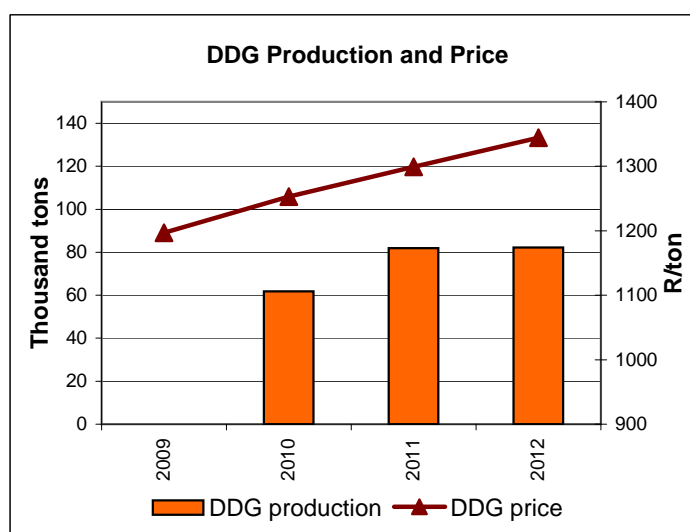
## Biodiesel

The profitability of biodiesel production from oilseeds is under pressure due to the high opportunity costs of selling the vegetable oils into the human market. It is, therefore, projected that the total production of biodiesel will only reach approximately 61 million litres in 2012 with almost an equal distribution between biodiesel from soybeans and from sunflowers. Under the policy assumptions of this baseline, it is anticipated that most of the biodiesel production will come from smaller units on farms for own use. This will not satisfy the B1 mandate and more than 20 million litres of biodiesel will have to be imported.



## Dried Distillers Grain (DDG)

The consumption of yellow maize in the production of ethanol will amount to 271 000 tons by 2012. This implies that approximately 80 000 tons of DDG will be available for domestic consumption. DDG is projected to trade at R1344/ton in the domestic market by 2012.



# Biofuels

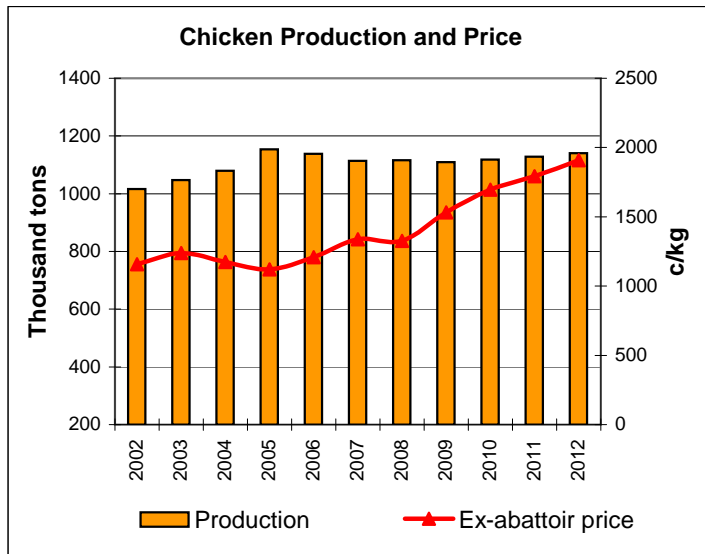
	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Ethanol</b>									
				<b>million litres</b>					
Production from maize	n.a.	n.a.	n.a.	0	82	109	109	111	161
Production from sugar	n.a.	n.a.	n.a.	0	96	118	118	122	174
Total ethanol production	n.a.	n.a.	n.a.	0	178	226	227	233	335
Ethanol domestic use	n.a.	n.a.	n.a.	221	223	226	229	580	588
Ethanol imports	n.a.	n.a.	n.a.	221	44	0	2	346	254
Ethanol exports	n.a.	n.a.	n.a.	0	0	0	0	0	0
				<b>c/litre</b>					
Ethanol Price, plant**	n.a.	n.a.	n.a.	481	484	479	501	563	564
Ethanol price, retail**	n.a.	n.a.	n.a.	782	797	806	842	919	934
Petrol price, plant	n.a.	n.a.	n.a.	411	433	445	458	470	483
Petrol, retail price	n.a.	n.a.	n.a.	712	747	772	798	825	853
<b>DDG</b>									
				<b>thousand tons</b>					
DDG production	n.a.	n.a.	n.a.	0	62	82	82	84	122
DDG imports	n.a.	n.a.	n.a.	0	0	0	0	0	0
DDG exports	n.a.	n.a.	n.a.	0	0	0	0	0	0
DDG domestic use	n.a.	n.a.	n.a.	0	62	82	82	84	122
				<b>Rands/ton</b>					
DDG price	n.a.	n.a.	n.a.	1,197	1,253	1,299	1,344	1,386	1,462
<b>Biodiesel</b>									
				<b>million litres</b>					
Production from soybean oil	n.a.	n.a.	n.a.	0	25	28	29	29	29
Production from sunflower oil	n.a.	n.a.	n.a.	0	30	31	33	34	36
Total biodiesel production	n.a.	n.a.	n.a.	0	55	59	61	63	65
Biodiesel domestic use	n.a.	n.a.	n.a.	82	83	84	86	87	89
Biodiesel imports	n.a.	n.a.	n.a.	82	28	25	24	24	24
Biodiesel exports	n.a.	n.a.	n.a.	0	0	0	0	0	0
				<b>c/litre</b>					
Biodiesel price, plant**	n.a.	n.a.	n.a.	505	504	515	527	539	553
Biodiesel price, retail**	n.a.	n.a.	n.a.	783	793	817	842	867	894
Diesel price, plant	n.a.	n.a.	n.a.	407	428	440	453	465	479
Diesel, retail price	n.a.	n.a.	n.a.	685	718	742	768	793	820

\*\* Note: Once the mandatory blending requirements are introduced in 2009, all biofuels will be imported until local processing plants get into production.

# Chicken Meat

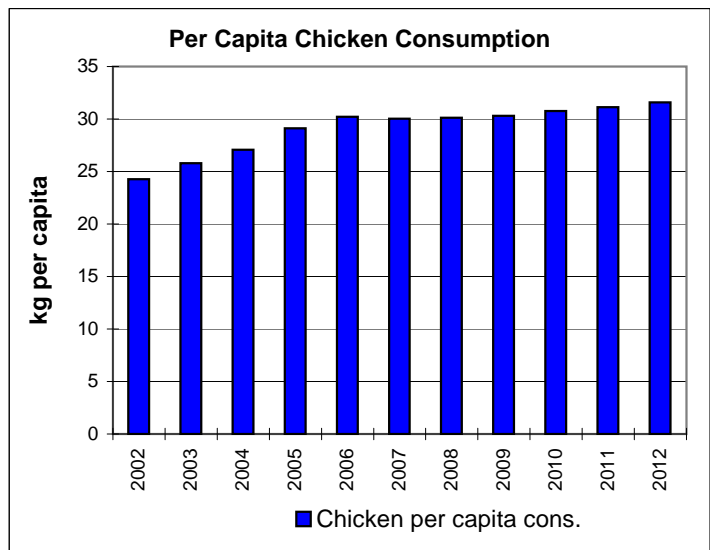
## Production

South African chicken production is projected to remain fairly constant at levels above 1.1 million tons per annum. Ex-abattoir prices are projected to reach an average price of R19.08/kg in 2012.



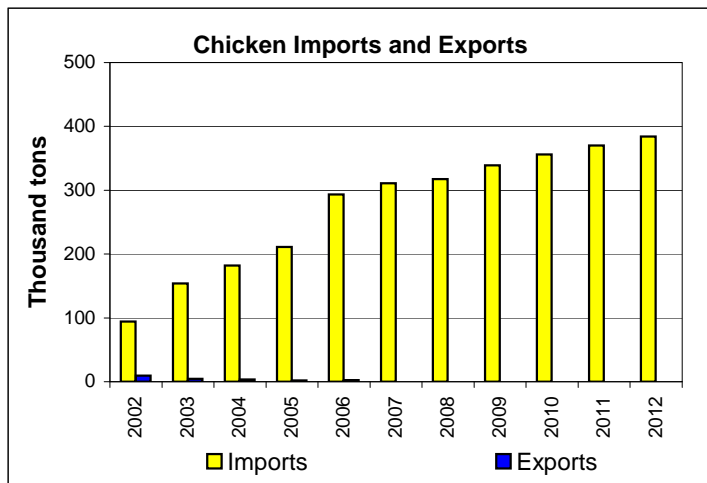
## Consumption

In the long term consumers are expected to continue to increase the amount of chicken eaten at an average additional 300g of chicken per person per year. This brings the domestic consumption of chicken to approximately 1.5 million tons in 2012. The projected increase in per capita poultry consumption is positively correlated with South Africa's GDP per capita growth. Potential growth in poultry expenditure by the "new black middle income class" is seen to be one of the major drivers for this increase in per capita consumption (refer to the section on consumer trends for further information).



## Trade

Brazilian chicken production and exports are projected to continue expanding with exports capturing a larger portion of the international market. Brazilian exports to South Africa continue to make up a substantial portion of the domestic market, with an average annual increase of 3.8%. Imports are projected to supply approximately 25% of local consumption towards the end of the baseline. South African exports decrease to zero over the baseline period.



# Chicken Meat

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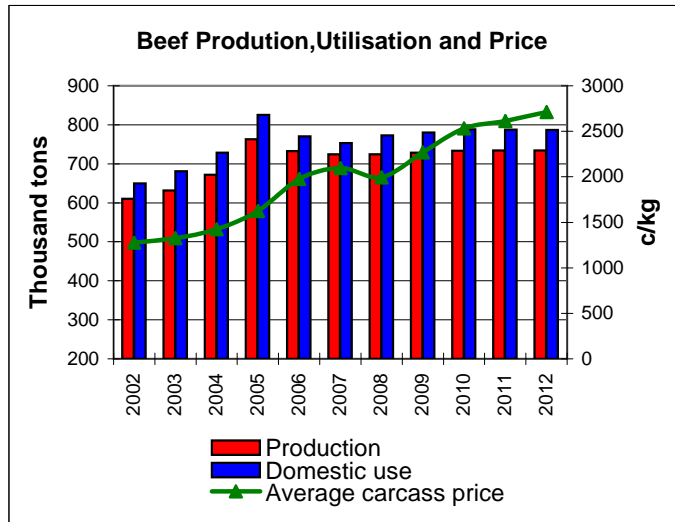
	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Chicken</b>									
				<b>thousand tons</b>					
Production	1,080	1,153	1,138	1,114	1,116	1,110	1,119	1,128	1,141
Domestic use	1,258	1,362	1,429	1,425	1,434	1,449	1,475	1,499	1,525
Imports	182	211	293	311	317	339	356	370	384
Exports	3.7	2.2	2.5	0.0	0.0	0.0	0.0	0.0	0.0
				<b>c/kg</b>					
Average producer price (ex abattoir)	1,173	1,121	1,208	1,337	1,325	1,532	1,697	1,793	1,908

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# Red Meat

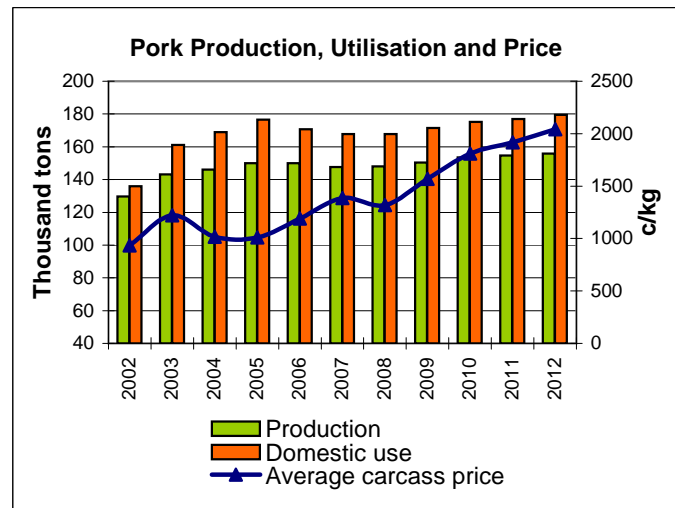
## Beef

Slaughterings have decreased in the first quarter of 2007. Beef production is projected to decline slightly in 2007 and then continuing with a fairly constant cycle over the baseline with production peaking again towards 2010. Domestic demand is expected to soften in response to record beef prices in 2006 and 2007. For the remaining baseline period, beef consumption is projected to grow at a moderate rate due to projected growth in personal disposable income of the South African population. Prices are projected to decline in 2008, but are projected to start increasing again by 2009 and reach the next peak in 2012.



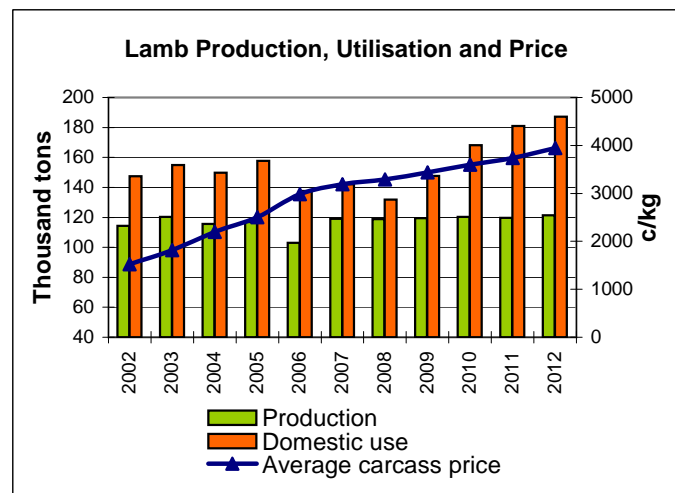
## Pork

Pork production peaked in 2005 as a result of high pork prices and low feed costs. Prices are projected to increase in 2007 as the smaller pork production units are coming under increased financial strain due to the unfavourable pork-maize price ratio, which has in 2006 decreased to 8.41 from 12.72 in 2005. After 2008, production is expected to increase again, but at a decreasing rate. Consumption is projected to increase from 2009 onwards at a rate slightly faster than that of production, causing an increasing price trend over the baseline period. Similar to beef, the next price peak is expected in 2010.



## Lamb

The domestic consumption of lamb follows a similar trend as the consumption of beef, but lamb prices are projected to increase marginally in 2007 and 2008 before continuing to increase at an increasing rate over the remaining baseline period. Prices are supported by the increasing trend in world prices. World prices are projected to increase as the Australian industry enters a period of flock rebuilding after a widespread break in the drought. Production is expected to be stable around levels of 120 000 tons. Similar to the other red meats, consumption of lamb is projected to increase from 2010 onwards, causing prices to increase at an increasing rate towards the end of the baseline.



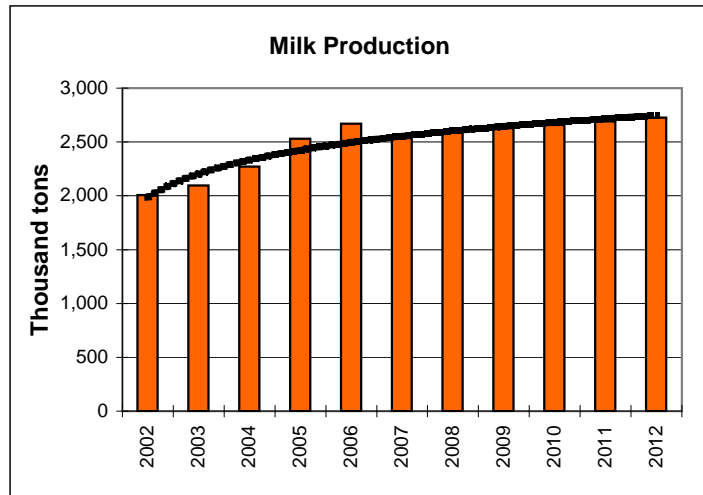
# Red Meat

	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Beef</b>				<b>thousand tons</b>					
Production	672.2	763.0	732.5	<b>724.3</b>	724.7	728.8	733.8	734.0	734.3
Domestic use	728.8	825.5	770.4	<b>753.2</b>	772.8	780.2	788.2	787.6	787.0
Imports	61.0	65.0	42.0	<b>35.8</b>	54.5	57.5	60.3	59.6	58.8
Exports	4.4	2.5	4.1	<b>7.0</b>	6.4	6.1	5.9	6.0	6.0
				<b>c/kg</b>					
Average carcass price	1,424	1,626	1,976	<b>2,098</b>	1,992	2,269	2,531	2,611	2,712
<b>Pork</b>				<b>thousand tons</b>					
Production	146.1	150.0	150.0	<b>147.6</b>	147.9	150.5	153.4	154.7	155.8
Domestic use	169.0	176.6	170.6	<b>167.8</b>	167.8	171.5	175.2	176.9	179.6
Imports	22.9	26.6	20.6	<b>22.6</b>	22.6	23.6	24.3	24.7	26.1
Exports	0.0	0.0	0.0	<b>2.5</b>	2.7	2.6	2.5	2.6	2.3
				<b>c/kg</b>					
Average carcass price	1,017	1,010	1,189	<b>1,385</b>	1,318	1,570	1,811	1,916	2,041
<b>Lamb</b>				<b>thousand tons</b>					
Production	115.5	117.0	103.0	<b>119.0</b>	118.7	119.4	120.2	119.7	121.5
Domestic use	149.9	157.8	137.6	<b>142.2</b>	131.8	147.7	168.2	180.9	187.2
Net Imports	34.4	40.8	34.7	<b>23.2</b>	13.1	28.3	48.0	61.2	65.7
				<b>c/kg</b>					
Average carcass price	2,195	2,504	2,986	<b>3,189</b>	3,291	3,440	3,600	3,741	3,942

# Milk

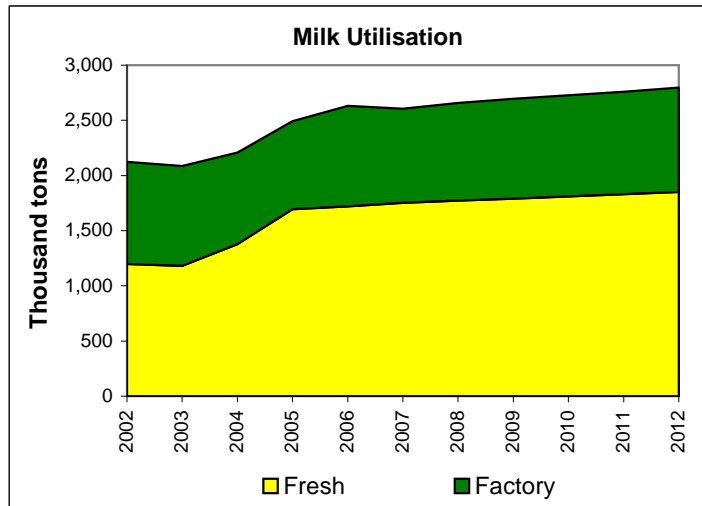
## Milk Production

During 2006 milk production peaked in response to lower feed costs encouraging farmers to expand their herds. However, high maize prices in 2006 and 2007 and very low milk producer prices, compelled farmers to cut back on production. Milk production is still increasing in the coastal regions due to their lower production costs. Because coastal grazing areas are limited and due to sticky high production costs in the interior regions, production is projected to remain relatively constant over the baseline period.



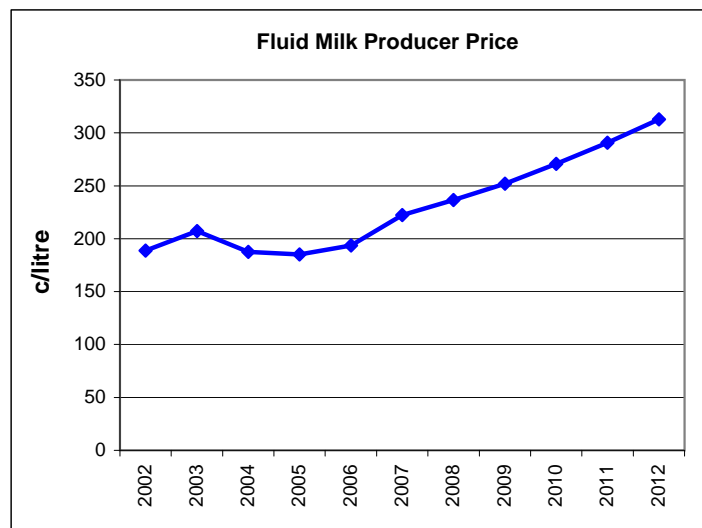
## Utilisation

Consumption of fresh milk is projected to increase with the projected increase in the consumption of dairy products. Increased consumption is explained in part by the effect of increased personal disposable income on consumption patterns. Utilisation of milk is projected to remain above production of milk by approximately 100 000 tons during the baseline period, which implies that South Africa will remain a net importer of dairy products.



## Milk Price

Since 2003 producer prices have decreased. This trend has changed towards the end of 2006 and prices are projected to increase over the baseline. The main reasons for the increasing price trend from 2007 onwards are the continued shortage of local production of milk and the increasing world prices for dairy products. Due to a depreciating exchange rate, imports of dairy products are expected to become more expensive, hence giving further impetus to price increases. Hence, it is anticipated that dairy processors will have no choice but to increase the producer prices to ensure farmers stay in production. A producer price of R2.36/litre is projected for 2008.





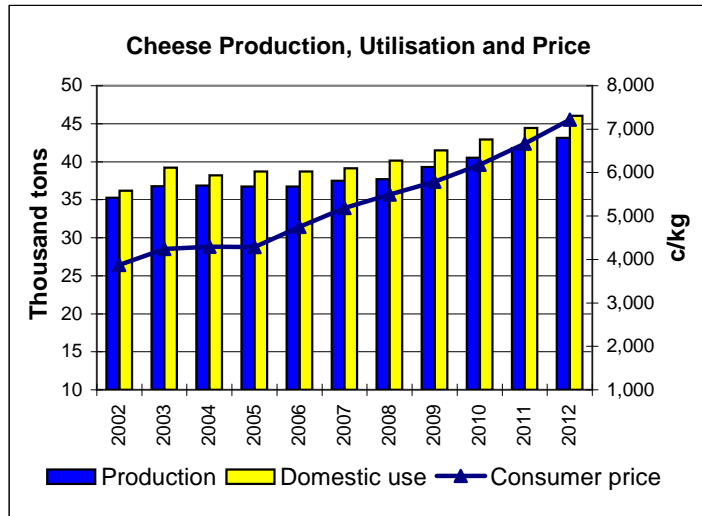
# Milk

	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Fluid milk</b>				<b>million litres</b>					
Production	2,221	2,473	2,611	<b>2,478</b>	2,530	2,569	2,597	2,630	2,666
Fresh consumption	1,347	1,655	1,682	<b>1,714</b>	1,732	1,751	1,768	1,788	1,809
				<b>thousand tons</b>					
Production	2,272	2,529	2,671	<b>2,535</b>	2,588	2,628	2,657	2,691	2,727
Fresh consumption	1,378	1,693	1,721	<b>1,754</b>	1,772	1,792	1,809	1,829	1,851
Factory consumption	830	800	910	<b>851</b>	885	905	917	931	946
				<b>c/litre</b>					
Average producer price	188	185	194	<b>222</b>	237	252	271	291	313

# Cheese and Butter

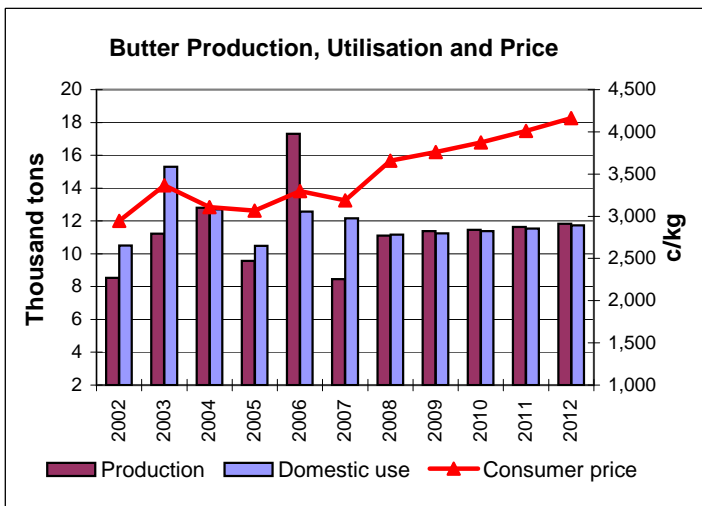
## Cheese Production, Utilisation and Price

Domestic cheese consumption is expected to increase from 2007 onwards as per capita income increases over the projection period. South Africa has mainly been a net importer of cheese. This is expected to remain unchanged over the baseline period as consumption grows faster than production (1.5% as opposed to 0.9%). Domestic market shortages will support the projected increase in cheese prices. In 2004 and 2005, cheese prices levelled off with the appreciation of the exchange rate. The projected price increase is aided by the gradual depreciation in the exchange rate and the increase in the world price of cheese.



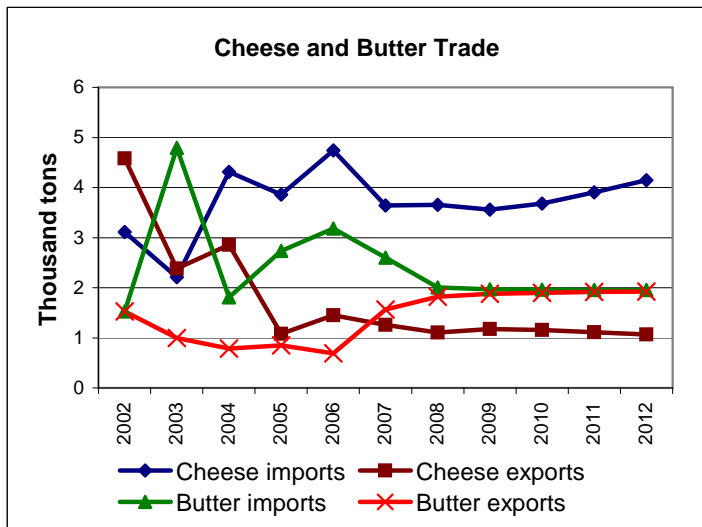
## Butter Production, Utilisation and Price

Annual butter consumption is projected to remain constant at approximately 11 500 tons over the baseline period. It is anticipated that production will match consumption over the baseline period. Butter prices are projected to reach R41/kg in 2012.



## Cheese and Butter Trade

The gap between cheese imports and exports is expected to widen as domestic consumption outgrows domestic production towards the end of the baseline period. Current projections suggest that butter will shift from being a net imported commodity to one where exports and imports are in balance from 2009 forward.



# Cheese and Butter

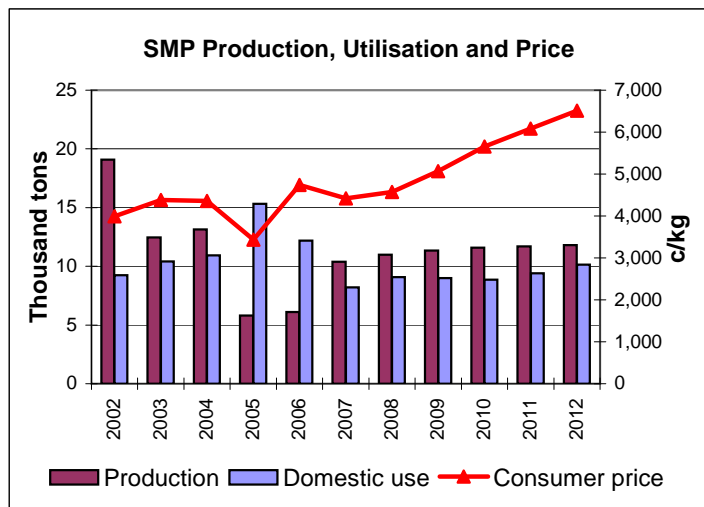
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	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Cheese</b>				<b>thousand tons</b>					
Production	36.9	36.7	36.7	<b>37.5</b>	37.7	39.3	40.5	41.8	43.1
Domestic use	38.2	38.7	38.7	<b>39.1</b>	40.2	41.5	42.9	44.4	46.1
Ending stock	1.2	2.0	3.3	<b>4.1</b>	4.2	4.3	4.5	4.6	4.8
Imports	4.3	3.9	4.7	<b>3.6</b>	3.7	3.6	3.7	3.9	4.1
Exports	2.9	1.1	1.4	<b>1.3</b>	1.1	1.2	1.2	1.1	1.1
				<b>c/kg</b>					
Average consumer price	4,295	4,285	4,752	<b>5,186</b>	5,497	5,790	6,183	6,668	7,220
<b>Butter</b>				<b>thousand tons</b>					
Production	12.8	9.6	17.3	<b>8.4</b>	11.1	11.4	11.5	11.6	11.8
Domestic use	12.7	10.5	12.6	<b>12.2</b>	11.2	11.2	11.4	11.5	11.7
Ending stock	2.2	3.2	10.4	<b>7.8</b>	7.9	8.1	8.3	8.4	8.5
Imports	1.8	2.7	3.2	<b>2.6</b>	2.0	2.0	2.0	2.0	2.0
Exports	0.8	0.8	0.7	<b>1.6</b>	1.8	1.9	1.9	1.9	1.9
				<b>c/kg</b>					
Average consumer price	3,107	3,065	3,296	<b>3,190</b>	3,657	3,760	3,873	4,010	4,162

# SMP and WMP

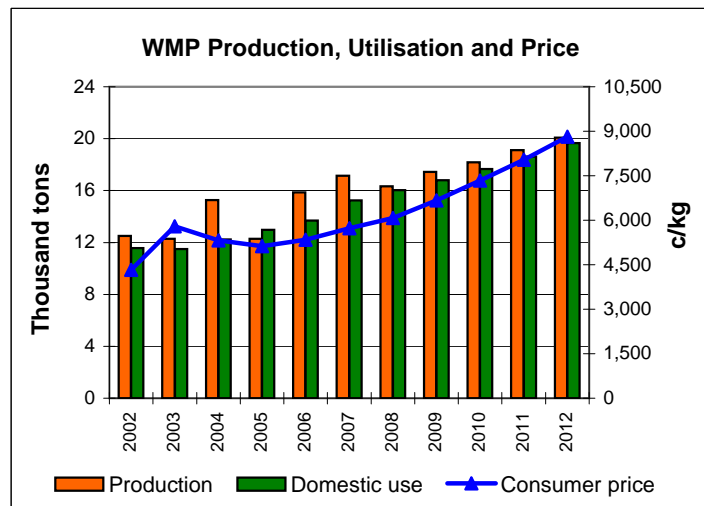
## SMP Production, Utilisation and Price

Historical data shows a high level of volatility in the production of skimmed milk powder (SMP); e.g. 13 100 tons in 2004 compared to 5 800 tons in 2005. Production is expected to increase over the baseline to 11 800 tons in 2012. Consumption is projected at 10 100 tons in 2012. Similar to cheese, the price increase is aided by the gradual depreciation in the exchange rate and the sharp increase in world prices.



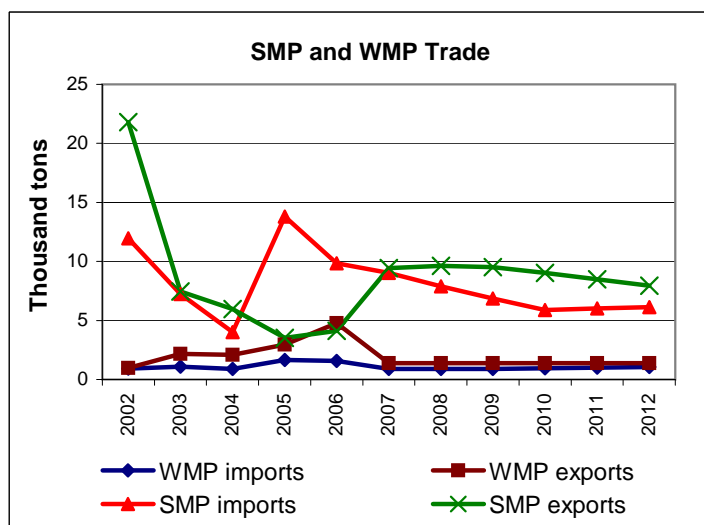
## WMP Production, Utilisation and Price

Whole milk powder (WMP) production increases by 15% over the baseline. Prices recover from the low levels in 2005 to reach R8.80/kg in 2012. Domestic production is projected to exceed domestic consumption marginally.



## SMP and WMP Trade

SMP exports peaked in 2002 with the high level of production. SMP exports are projected to increase rapidly in 2007 as production exceeds consumption. SMP imports are expected to moderate from the historical highs to a level of approximately 6 100 tons in 2012. Over the baseline, little trade is projected for WMP.



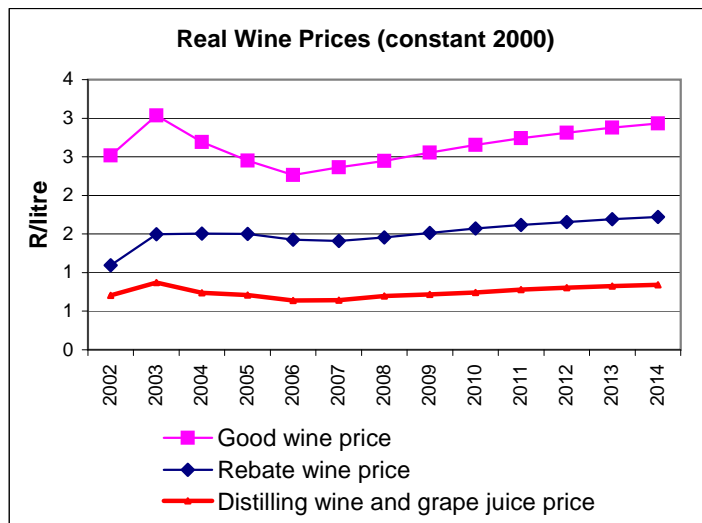
# SMP and WMP

	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Skimmed milk powder (SMP)</b>									
				<b>thousand tons</b>					
Production	13.1	5.8	6.1	<b>10.4</b>	11.0	11.4	11.6	11.7	11.8
Domestic use	10.9	15.3	12.2	<b>8.2</b>	9.1	9.0	8.8	9.4	10.1
Ending stocks	3.9	4.7	4.3	<b>6.1</b>	6.3	6.0	5.6	5.4	5.2
Imports	4.0	13.8	9.9	<b>9.0</b>	7.9	6.8	5.9	6.0	6.1
Exports	6.0	3.5	4.1	<b>9.4</b>	9.6	9.5	9.0	8.5	7.9
				<b>c/kg</b>					
Average consumer price	4,361	3,433	4,737	<b>4,420</b>	4,573	5,069	5,655	6,086	6,512
<b>Whole milk powder (WMP)</b>									
				<b>thousand tons</b>					
Production	15.3	12.3	15.9	<b>17.1</b>	16.3	17.4	18.2	19.1	20.1
Domestic use	12.2	13.0	13.7	<b>15.3</b>	16.0	16.8	17.7	18.6	19.6
Ending stocks	5.2	3.2	2.2	<b>3.5</b>	3.4	3.5	3.6	3.7	3.8
Imports	0.9	1.6	1.6	<b>0.9</b>	0.9	0.9	1.0	1.0	1.1
Exports	2.1	3.0	4.8	<b>1.4</b>	1.4	1.4	1.4	1.4	1.4
				<b>c/kg</b>					
Average consumer price	5,318	5,125	5,340	<b>5,725</b>	6,075	6,668	7,334	8,044	8,814

# Wine

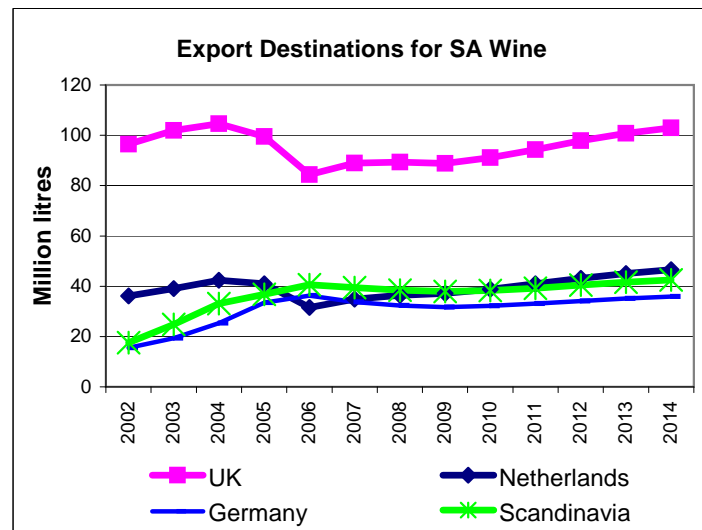
## Real Wine Prices

Real wine prices decreased over the period 2003 to 2006, but are projected to increase in 2007 due to higher projected producer sales and a weaker Rand. The projected gradual depreciation in the currency results in the real wine prices increasing up to 2014, but at a decreasing rate.



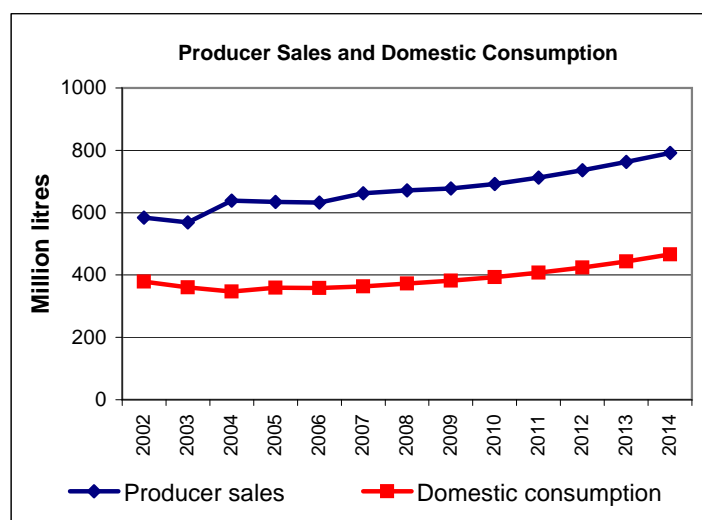
## Wine Exports

After the dramatic growth in exports during the 1990s, the rate of growth declined in 2005 to 5.5% and total wine exports declined by 3% in 2006. Wine exports are projected to resume their upward trend in 2007 and continue to increase over the baseline period as the Rand depreciates. However, the increase in exports is likely to be affected by wine production and prices in other new world countries.



## Producer Sales and Domestic Consumption

Producer sales decreased slightly in 2006 due to lower exports and stagnant domestic demand, but the projected increases in exports and domestic demand result in producer sales to increase over the baseline period. Domestic consumption is projected to increase as total population and per capita income increase.



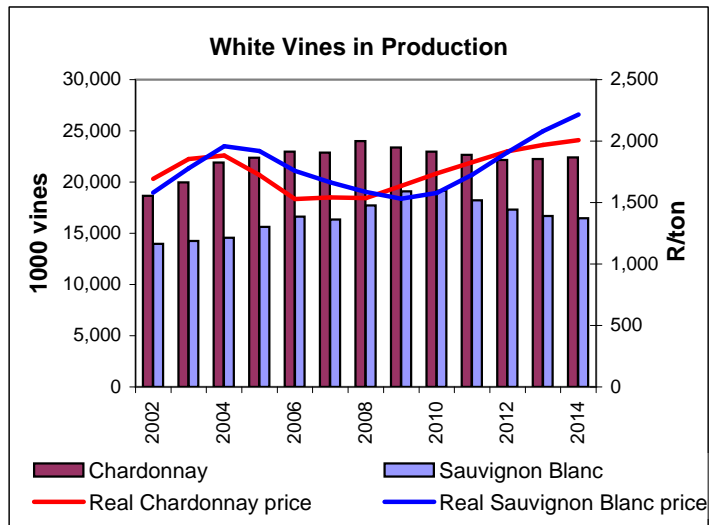
# Wine

	2006	<b>2007</b>	2008	2009	2010	2011	2012	2013	2014
<b>Wine Sales</b>									
			<b>thousand litres</b>						
Good wine producer sales	633	<b>662</b>	671	678	692	712	736	763	792
Wine domestic consumption	358	<b>363</b>	373	382	393	408	424	443	466
<b>Exports</b>									
			<b>thousand litres</b>						
UK	84.4	<b>88.9</b>	89.3	88.8	91.1	94.3	97.8	100.8	103.0
Netherlands	31.6	<b>34.9</b>	36.3	37.2	38.9	41.0	43.1	45.1	46.6
Germany	36.3	<b>33.7</b>	32.4	31.7	32.2	33.1	34.1	35.1	35.9
Scandinavia	40.6	<b>39.4</b>	38.5	37.9	38.3	39.3	40.4	41.6	42.5
<b>Wine prices</b>									
			<b>Rands/litre (current prices)</b>						
Good wine price	3.34	3.68	3.96	4.30	4.65	5.01	5.36	5.72	6.06
Rebate wine price	2.10	2.20	2.35	2.55	2.75	2.95	3.16	3.36	3.56
Distilling wine and grape juice price	0.94	1.00	1.13	1.21	1.30	1.42	1.53	1.64	1.74
			<b>Rands/litre (constant 2000 prices)</b>						
Real good wine price	2.27	2.37	2.45	2.56	2.66	2.74	2.81	2.88	2.93
Real rebate wine price	1.43	1.41	1.46	1.52	1.57	1.62	1.66	1.69	1.72
Real distilling wine and grape juice price	0.64	0.64	0.70	0.72	0.74	0.78	0.80	0.83	0.84

# Wine

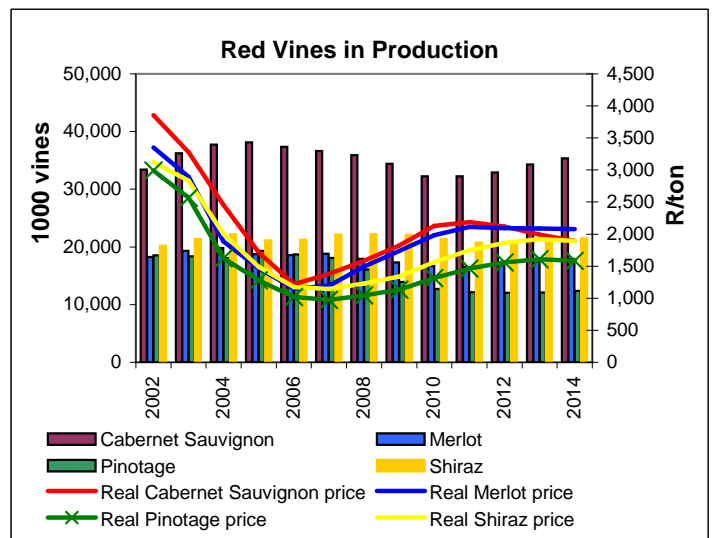
## White Vines in Production

The increase in real prices of Chardonnay and Sauvignon Blanc in the early 2000s resulted in increased plantings and thus increased production. The increase in supply has put downward pressure on prices in 2005 and 2006. The real price of Sauvignon Blanc grapes is projected to remain on this downward trend up to 2009 and then turn upwards as vines decrease slightly. The real price of Chardonnay grapes is projected to stabilise over the next two years and then increases as supply of Chardonnay grapes declines. The increasing trend in the real price of good wine also supports the real price of grapes.



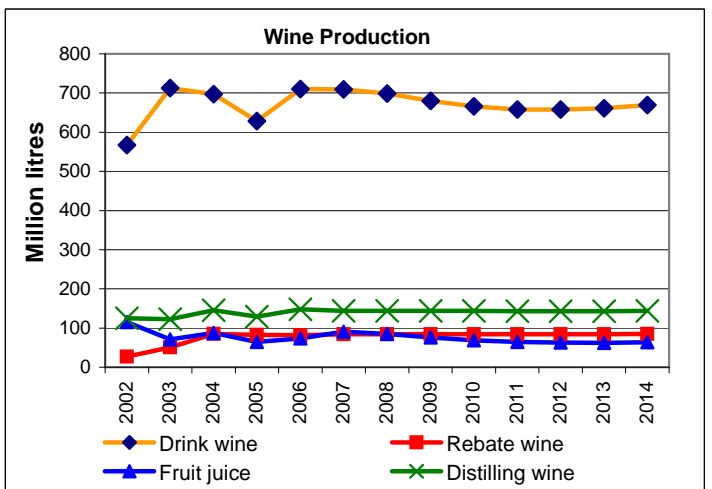
## Red Vines in Production

The decreasing trend in real red wine grape prices, which started in 2001, causes vines in production to decrease approximately 4 years later. The real prices of Cabernet Sauvignon and Merlot grapes are projected to turn upwards in 2007 due to lower supply and the projected depreciation in the Rand. In response, vines in production are projected to enter an upward trend from 2011 onwards. The real Shiraz price is expected to decrease in 2007, due to a projected increase in supply (following an increase in return per vine in 2002 and 2003). As vines in production (supply) increase, prices stabilise before they start to decline again.



## Wine Production

Total wine production is projected to remain stable in 2007, before it starts declining in 2008. The declining trend is projected to continue up to 2012 as vines in production decline and then increase up to 2014.





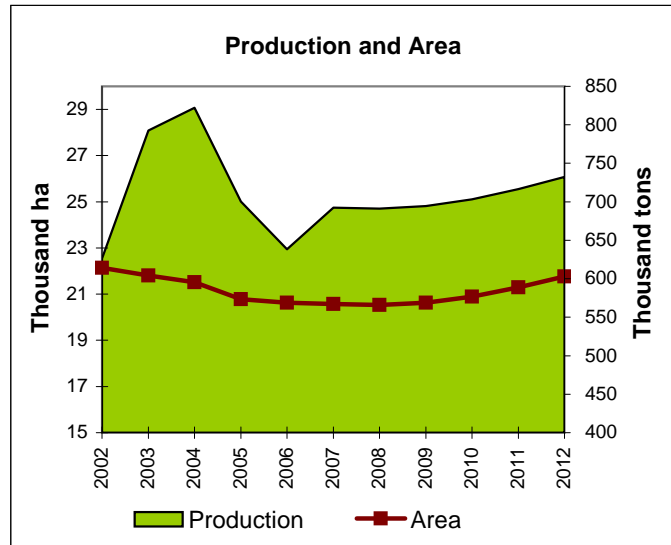
# Wine

	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Number of Vines</b>			<b>thousand vines</b>						
Chardonnay	22,981	<b>22,870</b>	23,991	23,361	22,979	22,665	22,163	22,260	22,407
Sauvignon Blanc	16,625	<b>16,345</b>	17,712	19,102	19,156	18,233	17,314	16,694	16,475
Cabernet Sauvignon	37,367	<b>36,651</b>	35,895	34,405	32,228	32,241	32,904	34,283	35,358
Cinsaut	7,254	<b>7,432</b>	6,600	5,538	5,249	5,036	4,905	4,762	4,698
Merlot	18,568	<b>18,830</b>	17,902	17,340	16,720	16,561	17,055	17,489	17,929
Pinotage	18,700	<b>18,092</b>	16,072	13,931	12,705	12,180	12,039	12,074	12,394
Shiraz	21,249	<b>22,152</b>	22,181	22,108	21,355	20,773	20,609	20,763	21,450
<b>Grape prices</b>			<b>Rands/ton (current prices)</b>						
Chardonnay price	2,252	<b>2,399</b>	2,485	2,752	3,044	3,337	3,651	3,911	4,145
Sauvignon Blanc price	2,590	<b>2,587</b>	2,565	2,578	2,764	3,151	3,636	4,135	4,579
Cabernet Sauvignon price	1,798	<b>2,143</b>	2,559	3,068	3,729	3,993	4,037	3,960	3,911
Cinsaut price	1,178	<b>1,237</b>	1,351	1,452	1,556	1,633	1,676	1,723	1,768
Merlot price	1,693	<b>1,853</b>	2,418	2,922	3,476	3,861	3,990	4,146	4,291
Pinotage price	1,501	<b>1,518</b>	1,685	1,906	2,305	2,676	2,967	3,191	3,269
Shiraz price	1,731	<b>1,782</b>	1,984	2,253	2,741	3,194	3,549	3,821	3,912
<b>Real grape prices</b>			<b>Rands/ton (constant 2000 prices)</b>						
Real Chardonnay price	1,528	<b>1,542</b>	1,536	1,635	1,738	1,827	1,916	1,968	2,007
Real Sauvignon Blanc price	1,757	<b>1,664</b>	1,586	1,532	1,578	1,725	1,908	2,081	2,217
Real Cabernet Sauvignon price	1,220	<b>1,378</b>	1,582	1,824	2,129	2,186	2,118	1,993	1,893
Real Cinsaut price	799	<b>796</b>	835	863	888	894	880	867	856
Real Merlot price	1,149	<b>1,192</b>	1,494	1,737	1,984	2,114	2,094	2,087	2,077
Real Pinotage price	1,018	<b>976</b>	1,042	1,133	1,316	1,465	1,557	1,606	1,582
Real Shiraz price	1,174	<b>1,146</b>	1,227	1,339	1,565	1,749	1,862	1,923	1,894
<b>Wine production</b>			<b>million litres</b>						
Drink wine	710	<b>709</b>	699	680	666	658	657	661	669
Rebate wine	82	<b>84</b>	84	84	84	84	84	85	85
Fruit juice	73	<b>91</b>	85	76	69	64	63	62	64
Distilling wine	148	<b>144</b>	144	144	144	143	143	143	144

# Apples

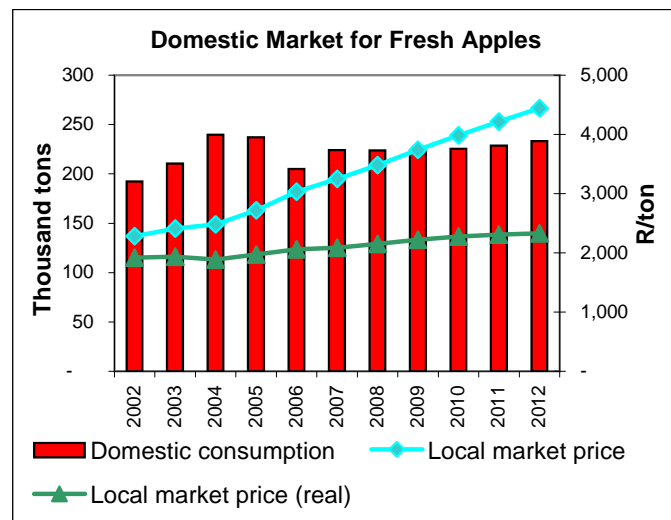
## Production and Area

Area under apple trees peaked in 2000 at 22 950 hectares, but decreased since then to 20 630 hectares in 2006. The declining trend is projected to continue in 2007 and to a lesser extent in 2008, as older orchards are uprooted and nurseries have difficulty keeping up with demand. Area is projected to start increasing in 2009 in response to increasing prices. Apple production decreased by 9% from 2005 to the 2006 production season, mainly due to the drought experienced in 2005. Production is projected to increase in 2007 to 692 500 tons, almost the same volume as in 2005. Total production is projected to decrease marginally in 2008 as area under apple trees decreases. However, from 2009 to 2012 it is projected to increase as new plantings come into full production and trellising methods improve.



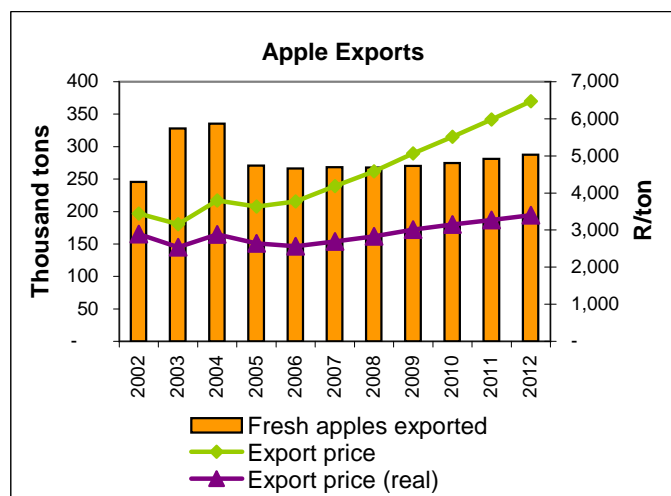
## Domestic Market for Fresh Apples

The apple price took a knock in 2004 in real terms as the volume on the domestic market increased by 14%. In 2005, the price recovered to the same level as in 2003, despite higher volumes than in 2003. An increase in Real GDP per capita drives per capita consumption of apples, which supports prices. The projected volumes include only locally produced apples and the price is expected to come under pressure should large volumes of apples be imported.



## Apple Exports

Exports peaked in 2003 and 2004, when South Africa experienced an exceptionally good production season. Apple exports are projected to increase slightly in 2007 and decrease in 2008, moving together with production. The increase in exports thereafter is driven by increased production as well as higher export prices. The export price (in real terms) increases over the baseline period due to a depreciating exchange rate.



# Apples

	2004	2005	2006	<b>2007</b>	2008	2009	2010	2011	2012
	<b>thousand hectares</b>								
Area	21.5	20.8	20.6	<b>20.6</b>	20.5	20.6	20.9	21.3	21.8
	<b>thousand tons</b>								
Production	822	700	638	<b>692</b>	691	694	703	717	732
Dom. consump. of fresh apple:	240	237	205	<b>224</b>	224	224	225	229	233
Fresh apples exported	335	271	266	<b>269</b>	268	270	275	281	288
	<b>Rands/ton</b>								
Local price (current)	2,481	2,721	3,032	<b>3,246</b>	3,481	3,740	3,984	4,217	4,443
Local price (constant 2000 pric	1,884	1,973	2,057	<b>2,087</b>	2,152	2,223	2,274	2,309	2,332
Export price (current)	3,794	3,638	3,772	<b>4,182</b>	4,585	5,071	5,517	5,980	6,476
Export price (constant 2000 pri	2,881	2,637	2,559	<b>2,689</b>	2,834	3,014	3,149	3,274	3,399

# Consumer trends and analyses

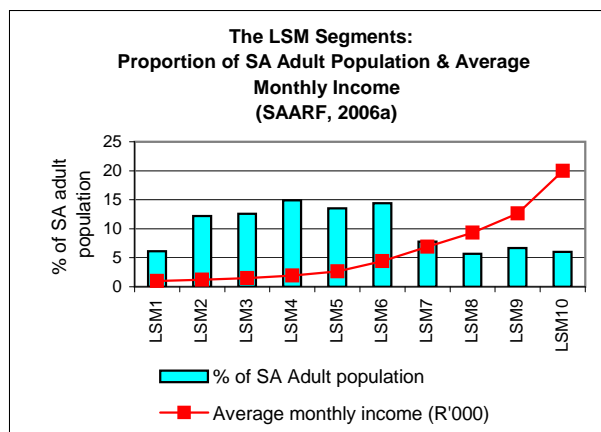
## Introduction

In order to develop a more comprehensive understanding of the models and projections presented in this BFAP Baseline document, it is critical to understand the food consumption trends affecting food demand in the South African context. This section provides an overview of food consumption trends in terms of the following aspects:

- \* The profile of the South African consumer market
- \* Food consumption patterns among the SU-LSM categories in South Africa for selected major food groups
- \* Global food consumption trends
- \* South African food consumption trends
- \* Trends in the consumption of selected, specific foods

## A profile of the SA consumer market

South Africa is a diverse nation with a wide variety of wealth groups and cultural denominations spread over urban and rural areas. The South African Advertising Research Foundation (SAARF) developed a market segmentation tool - the Universal Living Standard Measures (SU-LSM) - based on the socio-economic status of an individual or group (SAARF, 2006a). Consumers of least status form the segment SU-LSM 1 and those of the highest status SU-LSM 10. The majority of South African consumers (59.3%) fall within the lowest SU-LSM categories namely SU-LSM 1 to SU-LSM 5.



**Table 1: A summary profile of the South African consumer market**

Descriptor:	Marginalised consumers:	Modern consumers:	
		Emerging <sup>1</sup> :	Established:
Share of SA population <sup>2</sup>	30.90%	42.80%	26.20%
SU-LSM classification <sup>3</sup>	SU-LSM 1 - 3	SU-LSM 4 - 6	SU-LSM 7 - 10
Average monthly household income <sup>2</sup>	SU-LSM 1: R1003	SU-LSM 4: R1924	SU-LSM 7: R6880
	SU-LSM 2: R1210	SU-LSM 5: R2674	SU-LSM 8: R9304
	SU-LSM 3: R1509	SU-LSM 6: R4400	SU-LSM 9: R12647
			SU-LSM 10: R19974
Gender: %Male / %Female <sup>3&amp;4</sup>	SU-LSM 1: 45.1% / 54.9%	SU-LSM 4: 50.3% / 49.7%	SU-LSM 7: 51.4% / 48.6%
	SU-LSM 2: 46.6% / 53.4%	SU-LSM 5: 54.4% / 45.6%	SU-LSM 8: 47.9% / 52.1%
	SU-LSM 3: 48.9% / 51.1%	SU-LSM 6: 49.9% / 50.1%	SU-LSM 9: 50.7% / 49.3%
			SU-LSM 10: 49.9% / 50.1%
Formal unemployment <sup>2</sup>	SU-LSM 1: 49%	SU-LSM 4: 39%	SU-LSM 7: 17%
	SU-LSM 2: 43%	SU-LSM 5: 35%	SU-LSM 8: 13%
	SU-LSM 3: 40%	SU-LSM 6: 26%	SU-LSM 9: 7%
			SU-LSM 10: 4%
Rural share of group <sup>2</sup>	SU-LSM 1: 100%	SU-LSM 4: 48%	SU-LSM 7: 5%
	SU-LSM 2: 91%	SU-LSM 5: 25%	SU-LSM 8: 5%
	SU-LSM 3: 70%	SU-LSM 6: 11%	SU-LSM 9: Insignificant
			SU-LSM 10: Insignificant
Education level <sup>4</sup>	19% / 41% No / Primary schooling (SU-LSM 1) ---->38% / 45% High school completed / Post-matric qualification (SU-LSM 10)		
Main provincial location <sup>2</sup>	KZN, E Cape, Limpopo	Gauteng, W Cape, KZN	Gauteng, W Cape
Contribution to Fast Moving	22%	37%	41%
Retail shopping frequency: % of consumers in group engaging in once a month bulk shopping <sup>2</sup>	SU-LSM 1: 80%	SU-LSM 4: 71%	SU-LSM 7: 63%
	SU-LSM 2: 70%	SU-LSM 5: 69%	SU-LSM 8: 60%
	SU-LSM 3: 67%	SU-LSM 6: 65%	SU-LSM 9: 56%
			SU-LSM 10: 51%
Share of total SA household cash	5.9%	28.8%	65.3%

<sup>1</sup> The category 'Modern emerging consumers' includes the growing black middle class, which includes about 2 000 000 of black adults in SA (UCT Unilever Institute, 2005/2006)

<sup>2</sup> Source: SAARF (2006a)

<sup>3</sup> Source: ACNielsen (2005a)

<sup>4</sup> Source: SAARF (2006b)

<sup>5</sup> Calculations based on data by Martins (2006)

# Consumer trends and analyses

## Food consumption patterns among the SU-LSM categories - Selected major food groups<sup>6</sup>

### INTRODUCTION

#### Food cash expenditure as share of total cash expenditure (figures in brackets)

Higher share for lower wealth groups:

LSM 1 (70.8%) → LSM 10 (11.2%).

#### Cash expenditure on important food groups as a share of total food cash expenditure (figures in brackets)

Meat and grain products - Very similar for LSM 1 & 2. Meat followed by grain products dominates in all LSM categories with a widening gap towards LSM 10.

BUT...73.7% of SA consumers are in LSM groups 1 to 6, thus the per capita cash expenditure on meat is lower for these LSM groups.

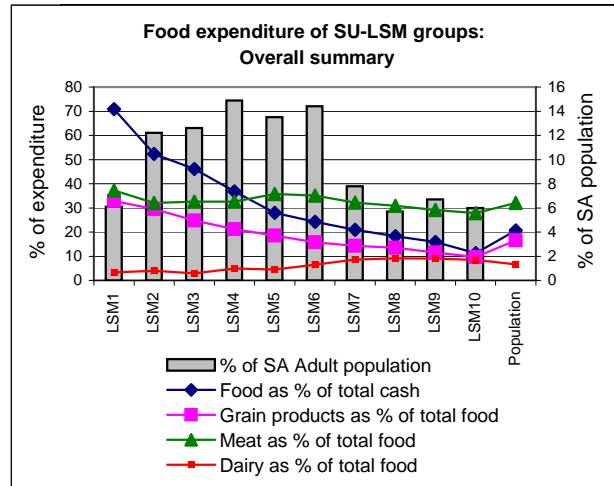
Grains: Higher share for lower wealth groups -

LSM 1 (32.8%) → LSM 10 (9.6%).

Meat: Relatively constant among the SU-LSM groups.

Dairy: Higher share for higher wealth groups -

LSM 1 (3.2%) → LSM 10 (8.5%).



### GRAIN PRODUCTS

#### Total cash expenditure on major grain products

Pattern among wealth groups reflects the relative size of LSM groups.

Largest grain cash expenditure by LSM groups 3, 4, 5 & 6.

#### Cash expenditure on major grain products as share of total grain cash expenditure (figures in brackets)

Maize meal:

Higher share for lower wealth groups -

LSM 1 (21.9%) → LSM 10 (2.4%).

Rice:

Higher share for lower wealth groups -

LSM 1 (22.8%) → LSM 10 (7.4%).

Bread:

Higher share for lower wealth groups from LSM 1 (52.0%) to LSM 6 (14.7%)

Lower share for higher wealth groups from LSM 6 (14.7%) to LSM 8 (36.2%).

Higher share for lower wealth groups from LSM 8 (36.2%) to LSM 10 (24.6%).

#### Relative importance of grain products i.t.o.

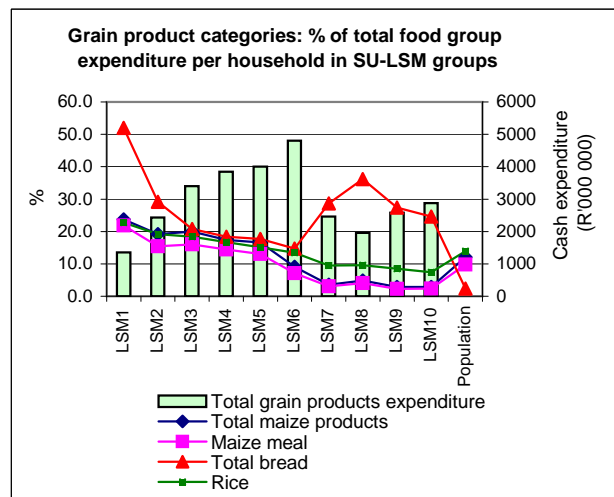
#### comparing the share of food cash expenditure on specific grains

SU-LSM 1 & 2: Similar shares for maize and rice.

SU-LSM 3, 4 & 5: Similar shares for maize, rice and bread.

SU-LSM 6: Similar shares for bread and rice, but lower proportion for maize products.

SU-LSM 7 to 10: Bread dominates, followed by rice and maize products.



# Consumer trends and analyses

## MEAT PRODUCTS

### Total cash expenditure on major meat products

Pattern among wealth groups reflects the relative size of LSM groups.

Largest meat cash expenditure by LSM groups 5, 6, 9 & 10.

### Cash expenditure on major meat products as proportion of total meat cash expenditure (figures in brackets)

Poultry:

Higher share for lower wealth groups - LSM 1 (48.5%) → LSM 7 (21.4%).

Higher share for higher wealth groups - LSM7 (21.4%) → LSM 10 (24.7%).

Beef:

Higher share for higher wealth groups - LSM 1 (14.3%) → LSM 4 (34.4%).

Higher share for lower wealth groups - LSM 4 (34.4%) → LSM 10 (22.7%).

Mutton:

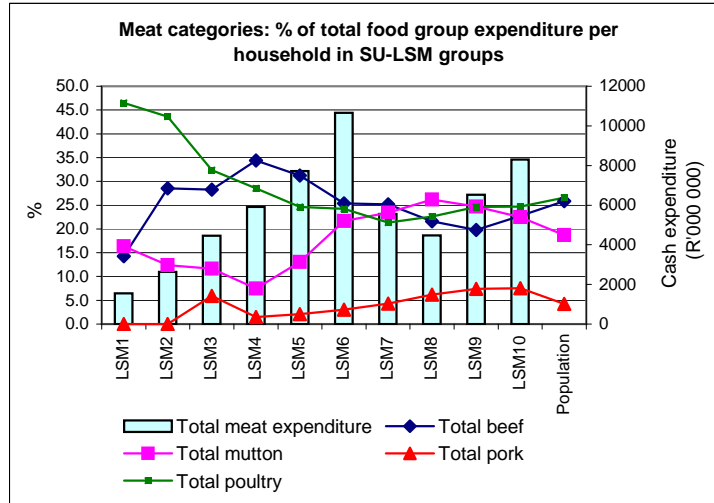
Higher share for lower wealth groups - LSM 1 (16.3%) → LSM 4 (7.5%).

Higher share for higher wealth groups - LSM 4 (7.5%) → LSM 8 (26.2%).

Higher share for lower wealth groups - LSM 8 (26.2%) → LSM 10 (22.5%).

Pork:

Higher share for higher wealth groups - LSM 3 (5.9%) → LSM 10 (7.5%).



### Relative importance of meat products i.t.o. comparing the share of food cash expenditure on specific meat products

SU-LSM 1, 2 & 3: Poultry dominates.

SU-LSM 4 & 5: Beef dominates, followed by poultry.

SU-LSM 6 & 7: Beef dominates, followed by poultry and mutton.

SU-LSM 8: Mutton dominates, followed by poultry and beef.

SU-LSM 9: Poultry and mutton dominates, followed by beef.

SU-LSM 10: Poultry dominates, followed by beef & mutton.

## DAIRY PRODUCTS

### Total cash expenditure on major dairy products

Increasing trend among the SU-LSM groups.

Largest dairy CE by SU-LSM groups 10 & 9.

### Cash expenditure on major dairy products as share of total dairy cash expenditure

Fresh milk:

Higher share for higher wealth groups - LSM 1 (26.6%) @ LSM 5 (55.9%).

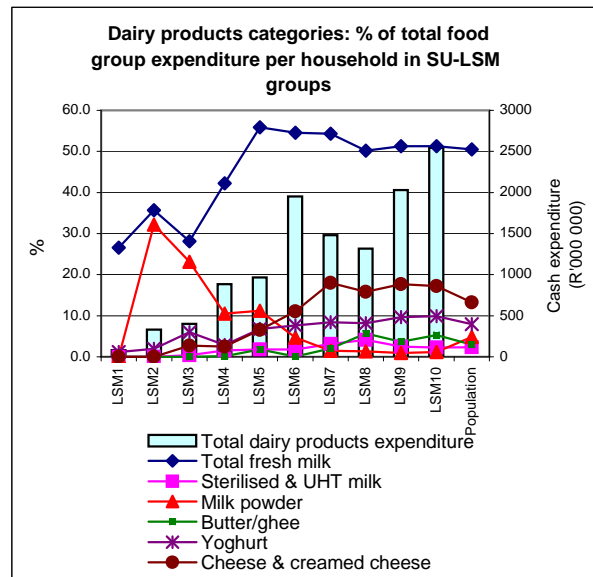
Higher share for lower wealth groups - LSM 5 (55.9%) @ LSM 10 (51.3%).

Milk powder: Higher share for lower wealth groups.

Butter, yoghurt, cheese: Higher share for higher wealth groups.

Relative importance of dairy products i.t.o. comparing the share of food cash expenditure on specific dairy products

Fresh milk dominates for all wealth groups, followed by milk powder for LSM 1 to 5, and cheese products for LSM 6 to 10.



# Consumer trends and analyses

## Global consumer food trends<sup>7</sup>

This section provides an overview of the six main global food trends: Consumers' increasing demand for convenience food, healthy food, attractive food & food variety, ethical / environmental eating, value and simplicity.

### 1. CONVENIENCE

Consumers are increasingly challenged with insufficient time in their daily schedules.

#### **Potential driving forces:**

- \* Gender complexity - Women moving into male roles and entering the workforce.
- \* Urbanisation.

#### **Examples:**

- \* Ready-to-eat meals (outsourcing meal preparation) (e.g. 4% global growth in ready-to-eat meals, 2005/06).
- \* Fragmented eating occasions (e.g. 6% global growth in snacks/chips, 2005/06).
- \* Speed shopping & increased shopping frequency.

### 2. HEALTH

Consumers are increasingly focused on improved vitality through healthy eating and dieting. Also include consumers' food safety concerns.

#### **Potential driving forces:**

- \* Stressful & busy lifestyles.
- \* Increased life expectancy, especially in developed countries due to improved medical care.
- \* Globalisation - affecting consumers' awareness of health issues as well as the availability of health-related foods and beverages.
- \* Increased availability of information related to food and health.
- \* Consumers' need for sustainability i.t.o. their physical well-being.
- \* Increasing popularity of preventative eating habits.
- \* A return to traditional values - pure / additive-free food.
- \* Increased focus on modern and convenient child health care, especially in emerging markets.
- \* Provenance (concerns regarding the origin of food), comfort and trust influence consumers' need for food safety and traceability.

#### **Examples:**

- \* Mediterranean diet boom.
- \* Healthy substitutes, e.g. olive oil vs other oils.
- \* Increased intake of fibre-rich food, e.g. breakfast cereal.
- \* Reduced salt food.
- \* Functional food.
- \* Increased bottled water consumption (9% global growth in 2005/06).
- \* Convenient healthy food (e.g. 18% and 10% global growth in drinkable yoghurt and ready-to-eat salads respectively, 2005/06)
- \* Demand for fresh food (e.g. 7% global growth in fresh vegetables, 11% growth for fruit / vegetables in emerging markets, 2005/06)
- \* Substantial growth in the baby food category, especially in developing countries (e.g. baby formula - 10% global growth, 25% growth in emerging markets).
- \* The 'constant diet'.
- \* Portion control - calorie-controlled mini snack

### 3. SIMPLICITY

Movement away from complex to simpler, natural, authentic food offerings.

#### **Potential driving forces:**

- \* Anti-globalisation.
- \* A lack of trust in complex commercial food products.
- \* Consumers' need to understand what they are eating.
- \* Re-emergence of traditional values.

#### **Examples:**

- \* Movement back to whole and unprocessed food.
- \* Shorter and simpler food ingredient lists.
- \* Simple packaging, language and imagery.
- \* Localism (Buying local food).
- \* Simplified shopping experiences (e.g. wider aisles)

### 4. ATTRACTIVE FOOD

Consumers seek improved and diverse sensory experiences (more pleasure, intensity and sensation), e.g. in terms of taste shapes, presentation, aroma and colour of food.

#### **Potential driving forces:**

- \* Variety seeking behaviour.
- \* Need for personalisation / individualism.
- \* Lifestage complexity (e.g. more diverse household structures;
- \* Increased life expectancy and more diverse lifestage characteristics among senior citizens.
- \* Globalisation - affecting the availability of a wide range of diverse and attractive food types.
- \* Consumers are more inquisitive and experimental.
- \* Income complexity - combining luxury and value.
- \* Need for indulgence as a form of comfort given rising stress and uncertainty.

#### **Examples:**

- \* Movement away from typical processed products such as potato chips, cookies, gum or soda and their typical flavour profiles.
- \* Increasing food-away-from-home consumption.
- \* Increasing bottled water consumption partly driven by variety available, e.g. premium imported, flavoured, enhanced and oxygenated.
- \* Increasing interest in ethnic food (link between food and culture).
- \* New world foods / exotic foods, e.g. Acai antioxidant berries from the Amazon; Detoxification teas from India.
- \* Ordinary food converted to special food, e.g. salt to sea salt; water to oxygenated water.
- \* Global growth in dairy-based drink (10%) driven by product innovation in terms of new packaging, brands and flavours, in 2005/06.
- \* Desserts, cakes and pastries (10% growth in emerging markets, 2005/06).

# Consumer trends and analyses

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## 5. ETHICAL / ENVIRONMENTAL EATING

Consumers' concerns about sustainability i.t.o. the community and the environment.

### **Potential driving forces:**

- \* Anti-globalisation movements.
- \* Increased consumer awareness of social- and environmental responsibility.
- \* Increased connectivity and sense of belonging.
- \* Linked to health trend i.t.o. naturalness of food.
- \* Provenance (origin of food) - ethical origin.

### **Examples:**

- \* Organic food.
- \* Free range food.
- \* Fair trade food.
- \* Origin labelled food.
- \* Food miles (combining locality and seasonality in food)

## 6. VALUE-FOR-MONEY

Consumers are still seeking value-for-money through private supermarket labels, despite their diverse and complex food requirements.

### **Potential driving forces:**

- \* Budget constraints.
- \* Income complexity - combining luxury and value.
- \* Linked to consumers' need for health, since the top 20 Private Label categories are predominantly fresh items, e.g. dairy & fruit.

### **Examples:**

- \* The average value share of private labels globally is 17% with a 5% growth rate. Private label market shares are particularly important in the categories dairy; meat, fish & eggs; fruit & vegetables; desserts, cakes & pastries.

## CONCLUDING REMARKS: GLOBAL CONSUMER FOOD TRENDS

All the trends discussed in this section could be encompassed by the trend '**Redefining quality**'. Modern-day consumers seek **high quality eating experiences** through the fulfillment of needs encompassed in the trends discussed in this section, including health-, organic-, local- and Fair Trade food.

### **Important note:**

The trends discussed in this section cannot simply be applied to any market. It is essential to develop a proper understanding of the manifestation of these trends in specific potential target markets.



# Consumer trends and analyses

## South African consumer trends: Are South African consumers part of Global Village?

### THE DUALISTIC CONSUMER MARKET

The duality of the South African consumer market has a strong influence on the food consumption patterns observed in the local food market:

#### **Low income consumers**

Basic food security in terms of the availability of an adequate quantity of affordable food to satisfy basic nutritional requirements, is the major food safety concern among poor consumers in South Africa.

This is illustrated by the results of a representative population survey by TNS Research Surveys (2007):

- 17% of people said that they could not afford to eat the correct food (compared to 22% in 2005 and 30% in 2003).
- 9% of people said that they have gone without food at least twice in the month before the survey because they could not afford to purchase food.

The poverty of these consumers is evident from observations based on the food cash expenditure of the SU-LSM groups 1 to 3, since these consumers spend 46.1% to 70.8% of their total cash on food items.

#### **Middle- and high income consumers**

The food purchasing and consumption behaviour of middle- and high income consumers are indicative of food trends based on increasingly complex food requirements, usually reflecting global food consumption trends. The next sections deals with the application of global consumers trends within the South African context.

### CONVENIENCE

South African consumers have shown the same need for convenient food purchasing and consumption.

#### **Potential local driving forces:**

- \* Longer working hours.
- \* Gender complexity - more women entering the work force.
- \* Time-consuming commuting to work locations.

#### **Examples - South African context:**

- \* Portable food products.
- \* The most important factor considered by 61% of South African consumers when selecting a retail outlet is convenience, e.g. a convenient location (36% of respondents) and a wide product range (25% of respondents) (ACNielsen, 2006b).
- \* Ready-to-eat and other time-saving food products - The availability of "Good quality instant cooked food" is a very important factor influencing the retail outlet selection of 59% of consumers (ACNielsen, 2006b). E.g. diced ready-to-cook vegetables, heat-and-eat refrigerated meals.
- \* Increasing food-away-from-home consumption - E.g. From 2001 to 2006 the portion of the South African adult population eating at restaurants increased from 21.7% to 27.4%, while the portion purchasing food from permanent fast food outlets increased from 32.0% to 38.1%. Among the LSM segments the food-away-from-home consumption varies from 4.2% in SU-LSM 1 to 28.4% in SU-LSM 10 (SAARF, 2006b).

#### **Special note:**

Even though the convenience trend is applicable to a wide portion of the South African population (even to poorer consumers in terms of affordable convenience), convenience is associated with a price premium. Preliminary results of the analysis of selected retail prices indicate that the price premium for convenience varies - e.g. onions (peeled vs whole) 12.6%, lettuce (pillow pack vs whole) 30.1%, butternut (peeled diced vs whole) 31.4% and carrots (peeled diced vs whole) 135.0%.

### HEALTH

South African consumers are increasingly focused on improved health through healthy eating and dieting. This is mostly applicable to middle- and high income consumers, as evident from the graph illustrating examples of health driven behaviour among local consumers.

#### **Potential local driving forces:**

- \* Stressful & busy lifestyles.
- \* Increased availability of information related to food and health.
- \* Globalisation - affecting local consumers' awareness of health-related food issues.

#### **Examples - South African context:**

- \* According to TNS Research Surveys (2007), about 25% of a representative sample of South Africans said that they consumed a lot of fruit, vegetables and salad. However, when considering households with an income of more than R15 000 per month, 60% of these consumers indicated that they consumed a lot of fruit, vegetables and salad.
- \* Mineral water and yoghurt are still major growth categories in South Africa, driven by the health and convenience trends. The share of the South African population consuming mineral water and yoghurt increased from 18.9% to 30.0% and from 42.6% to 49.1% from 2003 to 2006 respectively (ACNielsen, 2006c; SAARF, 2005; SAARF 2006b). [Refer to Table 2 for detailed trends i.t.o. yoghurt]

# Consumer trends and analyses

## South African consumer trends: Are South African consumers part of the Global Village? (Continued)

### ATTRACTIVE FOOD

South African consumers are increasingly focused on food attractiveness and diverse sensory experiences. This is mostly applicable in the middle- and high income consumers.

#### **Potential local driving forces:**

- \* Need for personalisation / individualism.
- \* Globalisation - affecting the availability of a wide range of diverse and attractive food types.
- \* Consumers are more inquisitive and experimental.
- \* Income complexity - combining luxury and value.
- \* Need for indulgence as a form of comfort given rising stress and uncertainty.

#### **Examples - South African context:**

- \* Variety-seeking behaviour - e.g. food variety in terms of flavours, shapes, presentation, aroma and colours.
- \* Increased food-away-from-home consumption (refer to 'Convenience' section for detail).
- \* Increased bottled water consumption, partly driven by the increasing variety available (e.g. still, sparkling, flavoured) (refer to 'Health' section for detail).
- \* Growth in yoghurt consumption, partly driven by increasing variety available (e.g. different packaging types and sizes, added health benefits, variety of flavours) (refer to 'Health' section for detail).

### VALUE-FOR-MONEY

Value-for-money and affordability remain important to the majority of South African consumers, even in a food environment characterised by more diverse choice.

#### **Potential local driving forces:**

- \* Budget constraints.
- \* Income complexity - combining luxury and value.

#### **Examples - South African context:**

- \* Next to convenience, the second most important factor considered by 39% of South African consumers when selecting a retail outlet is value-for-money (ACNielsen, 2006b).
- \* Only 8% of local shoppers do not take notice of prices and price changes when shopping (ACNielsen, 2006d).
- \* The value share of private labels among the major South African retailers (mostly associated with discounted food products) is 6.7% (compared to the global average of 17%), but it is growing at 11% per annum (compared to 5% global annual growth). The top three South African private label categories are dairy, dry food and fridge / frozen food. Food items of particular importance i.t.o. private labels are necessary items (e.g. long life milk, baked beans and dry pasta), fresh / frozen chicken and canned tuna (ACNielsen 2006d).

### ETHICAL / ENVIRONMENTAL EATING

Even though ethical / environmental eating is still a niche trend in South Africa, there is a growing interest among wealthy consumers in this regard.

#### **Potential local driving forces:**

- \* Anti-globalisation movements.
- \* Increased consumer awareness of social- and environmental responsibility.
- \* Increased connectivity and a sense of belonging.
- \* Linked to health trend i.t.o. naturalness of food.
- \* Provenance (concerns regarding the origin of food) - ethical origin.

#### **Examples - South African context:**

- \* The organic food sector is the most prominent example in South Africa. Even though the local organic food sector is still far behind the rest of the world, the sector (local consumption and exports) has shown exceptional recent growth from R5 million in 2003 to R155 million in 2005 (Mead, 2006). It is expected that growth will continue exponentially for the next few years. Preliminary results of an analysis of selected retail prices indicate that the average price premium for organic varies - e.g. vegetables 18%, yoghurt 26%, Greek feta cheese 31%, mixed processed vegetables 44%, breakfast cereals / bars 47%, bananas 72%, salad dressing / mayonnaise 110% and tea / coffee 112%. Examples of specific food products include organic fruit, vegetables, dairy (e.g. yoghurt, cheese) and processed food (e.g. pasta, breakfast cereals).
- \* Free range food is present in the SA food market, e.g. free range chicken products, eggs, lamb and beef.

### SIMPLICITY

Even though simplicity is still a niche trend in South Africa, there is a growing interest among especially wealthy consumers in this regard.

#### **Potential local driving forces:**

- \* Anti-globalisation.
- \* A lack of trust in complex commercial food products.
- \* Consumers' need to understand what they are eating.
- \* Re-emergence of traditional values.

#### **Examples - South African context:**

- \* Simplified shopping experiences - e.g. up to 63% of SA consumers have a need for modern and comfortable stores (ACNielsen, 2006b).
- \* A niche example relates to the emergence of farmers' markets in SA. Food purchasing at local farmer's markets is becoming more popular as confirmed by the up market South African lifestyle magazine House and Leisure (Buitendach, 2007). There are currently at least 16 of these local markets in South Africa, providing an alternative food purchase experience for consumers. The food offering of these markets encompasses organic food, (locally produced) fresh farm produce, culture food, free-range produce, boutique cheeses, gourmet food, home-industry style processed goods.

# Consumer trends and analyses

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## **FINAL THOUGHT - 'REDEFINING QUALITY'**

The global encompassing trend of 'Redefining quality' can be related to the SA context to a limited extent. The food quality orientation of the majority of SA consumers are still very general, e.g. demanding high quality fresh food, a better selection of high quality brands / products and good quality instant cooked foods (ACNielsen, 2006b). As evident from the major retailers' websites, most supermarket chains' positioning on quality strategies are in line with consumer trends reflecting a general quality focus and being very focused on price, e.g. selling a wide range of food products, quality products, convenience and competitive prices. However, Woolworths has a more advanced quality positioning including elements of health, superior taste, environmental sustainability and animal welfare as well as in food safety assurance.

Organic food is the most significant 'new' food quality movement in South Africa. Other examples include free range food products and the purchasing of local farm produce and traditional food at farmers' markets.

# Consumer trends and analyses

## South African consumer trends:

### Selected specific trends

(Sources: SAARF 2004, 2005, 2006b)

#### Access to electricity & food-related electrical appliances:

##### National trends: % of Sa adults with in-home access to ...

	2000	2001	2002	2003	2004	2005	2006
Electricity	79.1	80.3	83.1	83.6	84.9	85.1	85.8
Refrigerator	57.7	60.8	63.7	64.8	65.6	68.1	70.0
Microwave oven	25.0	27.9	30.4	31.3	32.1	37.5	40.0

##### LSM trends: % of Sa adults with in-home access to ...

		LSM 1	LSM 2	LSM 3	LSM 4	LSM 5	LSM 6	LSM 7	LSM 8	LSM 9	LSM 10
Electricity	2004	34.9	53	80.1	94.4	98.4	99.3	99.3	99.5	99.6	99.7
	2005	33.8	50	73.5	91.9	97.8	99.2	99.4	99.6	99.7	99.7
	2006	35.1	49.2	73.1	89.6	97.4	99.1	99.7	99.5	99.9	99.7
Refrigerator	2004	0	8.5	42.0	67.6	87.7	96.2	98.0	98.8	99.2	99.8
	2005	0	6.0	42.0	64.3	88.2	96.2	97.5	98.3	99.0	99.7
	2006	0	7.6	41.4	66.2	86.8	95.8	98.5	97.9	99.0	99.2
Microwave oven	2004	0	0	0.5	2.2	13.8	51.3	82.8	91.6	96.5	98.8
	2005	0	0	0.6	5.0	18.5	57.9	83.7	93.5	96.7	99.2
	2006	0	0	0	4.5	21.5	61.1	87.2	94.3	97.4	98.9

- From 2000 to 2006 South African's access to in-home electricity increased from 79.1% to 85.5% of total adults.
- From 2000 to 2006 South African's access to in-home food-related appliances increased significantly.
- The dramatic increase in access to electricity and an in-home refrigerator (especially from LSM 2 to LSM 3) is evident from the data.

#### Purchase / Usage of specific foods - Infant food

##### National trends: % of SA adults in LSM groups purchasing / using ...

	2001	2002	2003	2004	2005	2006
Baby food*	10.9	9.4	9.1	9.7	9.4	10.5
Infant cereal*	11.0	9.8	9.2	9.7	8.3	10.4
Infant formulae*	10.5	9.5	9.7	10.3	8.9	9.3

##### LSM trends: % of SA adults in LSM groups purchasing / using ...

		LSM 1	LSM 2	LSM 3	LSM 4	LSM 5	LSM 6	LSM 7	LSM 8	LSM 9	LSM 10
Baby food*	2004	8.7	10.3	9.9	12.6	12.6	11.1	7.6	6.0	4.7	4.6
	2005	6.5	12.6	9.4	14.0	12.1	6.7	8.4	6.6	5.4	3.7
	2006	4.4	11.7	13.7	14.8	12.8	11.3	5.6	8.4	6.6	4.2
Infant cereal*	2004	8.0	10.9	8.2	12.9	12.2	11.4	8.9	6.5	4.7	5.0
	2005	7.2	11.9	8.2	10.6	10.4	6.1	8.0	7.0	4.3	3.7
	2006	5.8	10.7	13.7	14.6	12.0	11.2	5.8	8.9	6.3	5.3
Infant formulae*	2004	10.0	13.2	10.8	12.8	12.2	10.3	8.3	6.5	4.8	4.8
	2005	8.3	12.6	9.5	11.2	10.8	7.3	7.7	6.0	5.0	3.7
	2006	5.0	8.8	10.7	12.4	13.1	9.2	5.9	7.7	5.6	6.0

- Among the lower LSM groups a larger percentage of adults purchase infant foods, compared to the wealthier LSM groups.

#### Purchase / Usage of specific foods - Maize meal

##### National trends: % of SA adults in LSM groups purchasing / using ...

	2001	2002	2003	2004	2005	2006
Maize meal*	75.4	75.4	75.4	73.2	73.5	75.6

##### LSM trends: % of SA adults in LSM groups purchasing / using ...

		LSM 1	LSM 2	LSM 3	LSM 4	LSM 5	LSM 6	LSM 7	LSM 8	LSM 9	LSM 10
Maize meal*	2004	82.8	80.7	80.7	80.8	79.7	73.3	60.1	55.4	52.9	46.2
	2005	81.9	84.6	82.5	83.7	83.0	71.3	63.9	54.7	49.7	43.3
	2006	89.1	85.5	85.7	86.0	81.6	77.8	65.4	59.1	50.1	46.5

- From 2001 to 2006 the % of SA adults purchasing maize meal was relatively constant.
- The importance of maize meal for the lower LSM groups (especially LSM 1 to LSM 6) is evident from the data.

# Consumer trends and analyses

## South African consumer trends:

### Selected specific trends

(Sources: SAARF 2004, 2005, 2006b)

#### Purchase / Usage of specific foods - Yoghurt

National trends: % of SA adults in LSM groups purchasing / using ...

	2001	2002	2003	2004	2005	2006
Yoghurt*	46.0	45.4	42.6	43.4	46.3	49.1

LSM trends: % of SA adults in LSM groups purchasing / using ...

		LSM 1	LSM 2	LSM 3	LSM 4	LSM 5	LSM 6	LSM 7	LSM 8	LSM 9	LSM 10
Yoghurt*	2004	19.8	30.6	38.6	46.0	49.9	51.3	50.9	51.4	53.3	56.2
	2005	25.7	38.5	39.1	47.1	52.6	50.4	52.1	53.9	53.4	53.1
	2006	24.2	36.2	42.1	49.0	53.9	56.9	55.9	58.0	55.8	56.9

- From 2001 to 2006 the % of SA adults purchasing yoghurt increased from 46.0% to 49.1%.

This growth trend could be linked to improved household access to electricity and refrigerators, as well as an increasing health awareness among consumers.

#### Purchase / Usage of specific foods - Frozen vegetables

National trends: % of SA adults in LSM groups purchasing / using ...

	2001	2002	2003	2004	2005	2006
Frozen vegetables*	38.0	34.2	31.5	35.6	34.7	33.8

LSM trends: % of SA adults in LSM groups purchasing / using ...

		LSM 1	LSM 2	LSM 3	LSM 4	LSM 5	LSM 6	LSM 7	LSM 8	LSM 9	LSM 10
Frozen vegetables*	2004	9	15.1	19.7	28.6	34	46.7	58.9	62.3	64.5	66.5
	2005	14.1	12.2	15.5	25.4	31.6	41.7	54.5	61.7	64.4	63.1
	2006	4.5	10.2	13.3	22.6	28.2	44.2	55.5	61.4	62	66.1

- The consumption of frozen vegetables is more prominent among the higher LSM groups.

This could be linked to access to electricity and freezing facilities, as well as a more diverse food basket.

#### Purchase / Usage of specific foods - Margarien/Butter bricks

National trends: % of SA adults in LSM groups purchasing / using ...

	2001	2002	2003	2004	2005	2006
Margarinen / Butter*	50.1	50.1	48.9	48.3	55.9	61.0

LSM trends: % of SA adults in LSM groups purchasing / using ...

		LSM 1	LSM 2	LSM 3	LSM 4	LSM 5	LSM 6	LSM 7	LSM 8	LSM 9	LSM 10
Margarinen / Butter*	2004	34.0	42.1	46.3	48.9	57.6	56.6	52.9	50.7	46.2	40.4
	2005	44.2	47.1	51.8	60.0	67.0	61.0	60.7	54.7	51.3	47.8
	2006	48.5	53.8	59.9	62.4	64.8	70.1	63.0	63.6	57.7	54.0

- From 2004 to 2006 the % of SA consumers purchasing butter/margarinen bricks increased from 48.3% to 61.0%.

- Butter/margarinen bricks are purchased by a relatively large proportions of consumers in all the various wealth groups.

#### Purchase / Usage of specific foods - Sugar packets / bags

National trends: % of SA adults in LSM groups purchasing / using ...

	2001	2002	2003	2004	2005	2006
Sugar*	-	-	82.3	81.8	81.2	77.5

LSM trends: % of SA adults in LSM groups purchasing / using ...

		LSM 1	LSM 2	LSM 3	LSM 4	LSM 5	LSM 6	LSM 7	LSM 8	LSM 9	LSM 10
Sugar*	2004	81.0	81.7	82.0	83.4	83.8	83.7	79.1	80.8	17.9	78.4
	2005	84.1	83.5	80.6	81.4	84.8	78.4	79.1	81.6	79.2	77.2
	2006	81.6	71.1	78.4	78.6	74.3	80.3	79.2	82.6	75.3	77.4

- From 2003 to 2006 the % of SA consumers purchasing sugar decreased from 82.3% to 77.5%.

- Sugar purchased by a large proportions of consumers in all the various wealth groups.

#### Footnotes:

\* Consumer products - personally bought for self or household members

\*\* Consumer products - personal usage

# Consumer trends and analyses

## South African consumer trends: Selected specific trends (Sources: SAARF 2004, 2005, 2006b)

### Purchase / Usage of specific foods - Alcoholic beverages

#### National trends: % of SA adults in LSM groups purchasing / using ...

	2001	2002	2003	2004	2005	2006
Beer (excl Sorghum beer)**	21.6	21.5	22.0	22.2	23.2	24.5
Sorghum beer**	7.5	7.6	5.5	6.7	6.2	6.0
Table wine - boxed/jugs**	7.2	7.3	7.1	7.2	6.8	7.1
Table wine - corked**	7.2	6.7	6.1	5.9	6.6	6.8

#### LSM trends: % of SA adults in LSM groups purchasing / using ...

		LSM 1	LSM 2	LSM 3	LSM 4	LSM 5	LSM 6	LSM 7	LSM 8	LSM 9	LSM 10
Beer**	2004	18.6	19.8	20.8	21.6	22.9	23.7	24.7	23.4	25.2	26.8
	2005	18.1	21.4	21.5	24.7	25.1	24.9	24.2	22.0	23.6	24.1
	2006	14.8	22.7	25.8	26.7	26.7	25.3	22.3	21.6	22.9	29.7
Sorghum beer**	2004	12.5	10.3	8.8	7.7	6.6	4.2	2.1	2.1	1.5	1.6
	2005	17.5	8.3	10.2	8.1	7.0	2.7	1.7	0.7	0.3	0.3
	2006	17.3	12.0	8.3	7.1	6.9	2.8	1.5	0.5	0.2	0.4
Table wine - boxed**	2004	3.6	4.7	5.5	7.4	6.8	6.3	7.8	10.0	12.6	16.6
	2005	4.6	6.3	6.6	6.2	7.6	6.0	6.1	5.6	9.6	12.2
	2006	4.3	7.0	7.2	7.0	6.5	6.8	6.4	7.0	8.1	11.8
Table wine - corked**	2004	2.5	2.4	3.3	3.5	4.7	5.3	7.0	10.5	13.7	24.1
	2005	3.1	3.5	4.4	4.7	6.2	5.8	7.3	7.2	13.7	21.4
	2006	2.0	4.0	4.1	4.8	5.0	6.7	6.9	8.7	12.0	22.6

- From 2002 to 2006 the % of South African consumers consuming beer increased from 21.5% to 24.5%.
- The % of South African consumers consuming boxed wine was relatively constant from 2001 to 2006.
- From 2003 to 2006 the % of South African consumers consuming corked wine increased from 5.9% to 6.8%.
- Sorghum beer is more popular among the lower LSM groups.
- The consumption of regular beer is slightly more prominent among wealthier consumers.
- The consumption of wine is much more prominent among wealthier consumers, especially consumers in LSM 10.

#### Footnotes:

\* Consumer products - personally bought for self or household members

\*\* Consumer products - personal usage

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## Notes