

## **ASSESSMENT OF CURRENT ECONOMIC AND PHYSICAL ENVIRONMENT OF AGRICULTURE**

**January 2004**

### **EXECUTIVE SUMMARY**

After good rainfalls in January 2005, the drought has been softened to a large extent. Conditions for maize production are very favourable, but natural veld still needs time and good management after the very dry spell of more than 18 months, to ensure adequate recovery before winter. Levels of storage dams in the central and south-western parts of the country are still very low. Food security for the country as a whole is, in spite of the drought of the past years, in a very healthy state mainly due to improved production techniques and overhead irrigation. There is an over-supply of nearly all field crops with the exception of wheat. This is now resulting in a very high risk for income security (low prices) with emerging farmers most vulnerable. A lack of income can also have negative effects in farming areas where communities rely on the income generated by mainly commercial agriculture. This in turn can result in a high risk for food security for individual households, where money is the limiting factor to buy food. However, from an economic point of view there is not sufficient evidence that warrants government intervention at this stage. All the necessary conditions for a well functioning market are in place and there is no evidence of market failure. The DoA should continue to closely monitor the situation.

### **Agricultural drought**

Although rainfall was below normal over large parts of the country during the past 18 months, agricultural conditions are still relatively favourable with only isolated areas where severe drought was experienced (central and eastern Free State, western parts of North West and southern parts of the Eastern Cape). However, good rainfalls occurred over most of the country during January 2005, with most of the maize growing areas receiving more than 50mm in total.

### **Maize production**

Following a late start of the rainfall season, farmers planted later than normal but still managed to plant within a safe planting window. Only in the eastern Free State was rain too late to ensure a viable maize crop. Following the good rain in January 2005, conditions are currently at least average but in most areas above average. February 2005 will be the crucial month to determine an average or above average maize crop.

Current maize prices of about R600/ton for white maize on Safex are the lowest in four years. Maize prices have dropped by more than 50% in the past year and were at R1024/ton as recently as November 2004. The present low prices are the result of a number of factors, including large carry-over stocks from the 2004 crop, relatively low international prices, the rand's strength against the dollar and the better than expected rainfall, which has boosted the prospect of a maize crop in excess of 9 million tons.

Should farmers harvest a crop of about 9 million tons this year, and taking last year's 3 million ton excess maize into consideration, about 12 million tons of maize will be available in a market, which can realistically absorb about 8 million tons. Government subsidies in other countries make it difficult to export surplus maize and since deregulation of the local marketing system, maize exports have virtually disappeared from the world market. During 1996/97, the last season of the Maize Board, exports reached 2,7 million tons while 4,7 million tons were exported in

1994/95. These figures do not include annual deliveries of about 450 000 tons to the BLNS countries, which are considered part of the domestic market.

The SADC region will also continue to face food shortages during 2005. According to FAO/WFP, all SADC countries excluding South Africa, Tanzania, and Zambia will be faced with yet another grains deficit year due to adverse growing conditions. SADC requires about 3,25 million tons of grains to meet its basic needs for grains. Although South Africa will have more maize stocks available this year than other Southern African countries, the appreciating rand against other currencies will dampen demand for grains from South Africa as it will become too expensive for them to import.

With current nett maize prices of about R600/ton, most maize farmers will make losses if they harvest an average yield of 3,1 tons/ha in this year. A yield of about twice the average yield is needed to reach profit levels, which, in turn can lower prices to export parity levels of about R380/ton.

The current low price levels for maize could also impact negatively on farmers ability to repay their loans. Agricultural debt in South Africa is estimated at R33 billion, of which about R16,6 billion is owned to commercial banks. Approximately R11 billion of the money owned to the banks is in the form of short-term debt. The low maize prices could cause liquidity problems and result in farmers defaulting on their short-term loans.

The Land Bank has also increased its interest rates, effective from 1 February 2005. This increase means that the average Land Bank client will pay 2% more than the commercial banks' prime rates of about 11%. Debtors will also be penalised for late payments. For example, a late payment of 45 days will increase a debtor's interest rate by 1%, while late payments of 90 days will downgrade debtors' status. According to the Land Bank the increases were due to the increased cost of Land Bank funds on the open capital market, which reduced margins, and a growing number of bad debts.

### **Maize prices**

The price at which maize sells on Safex acts as the benchmark for pricing in the rest of the market. White maize, used for human food, is regarded as a more important indicator than yellow maize, typically used in animal feed. It is estimated that eight times the quantity of maize produced in South Africa is traded on Safex annually, which relates to a considerable "paper trade" in maize by speculators.

Producers also complain that the prices established on Safex are based on the price of maize that is delivered in Randfontein. This means that the prices that producers receive are often considerably less than the market prices because the cost of transporting maize to Randfontein must be deducted. For example, a farmer in the Bothaville area will have to pay about R70/ton for transport costs to deliver maize in Randfontein and about R40/ton administration costs to the silo-owner. With maize prices of about R600/ton, producers will receive less than R500/ton, while production costs are in the region of R1000/ton.

Currently the export parity price of yellow maize is R384 per ton and that of white maize R481 per ton, which is considerably lower than the domestic price. On the other hand the current import parity price for white maize (delivered in Randfontein) is R1 302/ton and for yellow maize R1 203/ton.

In view of this price differential, only small quantities of maize are being imported into the coastal areas. According to the latest Sagis figures for the current marketing

season (1 May 2004, to date) approximately 410 000 tons of white maize have been exported mainly to Kenya and Zimbabwe, while 80 000 of yellow maize have also been exported. Imports of yellow maize mainly from the Argentine amount to 161 000 tons. Although Grain SA sees higher import duties as the main solution to the current situation the duties would have little impact because South Africa is a net exporter of maize.

Farmers who stuck to the tried and tested principle of selling their crops in thirds should weather the maize-price storm. This means that farmers contract a price for only a third of their crop on planting and for another third at the end of January or early February. The final third is sold on spot price after harvest. Farmers who applied this principle should have secured good prices for at least a third of their crop.

### **Wheat**

The wheat crop failed in the eastern Free State as well as in smaller areas in the Western Cape with the rest of the production area normal to even above normal (western Free State). The crop is currently estimated at 1,73 million tons compared to 1,54 million tons in 2003. With an annual consumption of about 2,7 million tons, wheat imports in 2005 are likely to reach 1,1 million tons after 1,3 million tons was imported in 2004. The import tariff is currently R18,67/ton.

Poor wheat prices are also affecting the livelihood of farmers, especially in the Western Cape. With a Safex price of around R1300/ton minus the transport differential, farmers might realise about R800/ha. According to Grain SA the estimated production costs in the Swartland, one of the areas most affected by the drought, were approximately R2380/ha. At current prices, farmers must produce at least 2,4 tons/ha, which is way above the regional average of 1,5 tons/ha, just to break even.

According to Grain SA the immediate increasing of import tariffs is the only solution to the grain farmers' problems. However, the current import tariff system firstly needs to be amended to take into account the fluctuating exchange rate and other variables, before it would benefit farmers. For example, in 2002 when the rand was weak, the wheat price was above R2000/ton and the import tariff was R196/ton. Presently with a strong rand, the wheat price is about R1300/ton and the tariff is R18,67/ton. Although protection is necessary for food security, an international study has shown that agricultural subsidies forced commodity prices down by 10%. South Africa currently has a 2% tariff on wheat, while the WTO allows for a 72% tariff. (The tariff on maize is 13%, while the WTO allows for a 50% tariff).

### **Grazing**

This is probably the area where there are still serious problems. The effect of drought in the past two years and the short remainder of the growing season can still result in drought conditions in winter and the spring of 2005.

An additional amount of R100 million has been allocated to eight provinces (excluding Gauteng) for drought alleviation in the current financial year. The money will be used for drilling and repairing boreholes as well as purchasing and transportation of fodder. During the 2003/04 financial year the National Treasury already granted an amount of R148 million to assist farmers in the purchasing of fodder for their livestock.

### **Livestock**

The current low producer prices of grain could spill-over to the meat industry later on in the season and could result in a downward movement of meat producer prices. Grain producers might feed maize to their cattle and expand their cattle operations, or sell their maize as feed in order to reduce financial losses as a result of the low maize prices. Although meat prices increased since October 2004 because of the increased demand for meat over the festive season, prices should drop later this year.

Weaner purchase prices could increase due to the increased demand for weaners from feedlots. However, by the time weaners are ready for slaughter, there could be an oversupply of beef in the market and this could put the meat industry in the same crisis as the grain industry.

### **Pricing of agricultural products**

The government has a firm position on the pricing of agricultural products which are subject to free-market forces in the domestic market. This is reflected in the Marketing of Agricultural Products Act of 1996, which specifies that the free market should be allowed to determine prices in accordance with the principle of supply and demand.

As a member of the World Trade Organisation, South Africa has various WTO compatible instruments that can be used should there be any distortions in the market that causes an influx of imports or subsidised imports. Ordinary tariffs are applied against normal competition or subsidies. Anti-dumping and countervailing duties as well as safeguard measures are instruments that could be used against unfair competition or sudden disruption of local industries. The relevant levels of tariff are investigated by the International Trade Administration Commission (ITAC) within the same framework as all other products. Both the National Agricultural Marketing Council and the National Department of Agriculture advise the Minister on the tariff reports received from ITAC, which are then approved by the Minister for Agriculture and Land Affairs. For example, the current import tariff on maize, which was gazetted on 13 January 2005, is R84,24/ton.

At a meeting held on 9 February 2005, ITAC and Grain SA decided that a task team should be established, comprising representatives from Grain SA, ITAC, DoA and other organisations and institutions. The brief of the task team, in the context of the complexity of the grain industry, nationally and internationally, is to clarify the scope of the investigation, collate all relevant information, investigate alternative tariff formulas, and to make proposals to ITAC for a future tariff regime for the grain industry chain that is relevant in the current international environment.

The South African Government is also a signatory of the Agreement on Agriculture of the World Trade Organization and has therefore bound itself to policy directives in terms of providing protection. South African agriculture is limited by its commitment on domestic support as to how much it can support its agriculture sector. However, substantial amounts can still be used as well as support that is not trade or production distorting, the so-called "green box" support. Price support is the worst form of production and trade-disruptive measure, which not only distorts the domestic market, but is also very disruptive on the international market. South Africa will also in the upcoming WTO negotiations on agriculture strongly argue for the elimination of the use of export subsidies as well as substantial reductions in domestic support used by countries in order to move to a more equal playing field in trade. It is therefore very unlikely that the government would re-introduce such an instrument.

### **Socio economic consequences**

- **Food security**

In terms of maize production a record surplus is pending with a build up of stocks over the past few years. Exports were not possible with a very strong rand currency and international prices also showed a declining trend. Farmers on the other hand upgraded production techniques and resorted to irrigation in order to lower production risk. In this process, they succeeded in achieving a very high level of food security for the country. This is probably also true for other commodities like meat, etc. However, low prices were responsible for a rapidly declining **wheat crop** over time due to a shrinking area planted, resulting in a **higher imported portion** to secure the domestic demand. The fear is that the same can happen with the maize industry although a lack of alternatives can put a break on this.

- **Income security**

The two main factors that determine income security are production (drought and management) and prices. Drought or poor management can result in low yields or production losses. Emerging farmers with a lack of training and experience are therefore very vulnerable in securing a viable yield. If low prices are also an important factor, it can be a triple burden for a new, inexperienced farmer in order to be a successful farmer. (Nett on farm maize prices are currently in the order of about R500/ton to R550/ton).

A study was undertaken to determine the effect of current maize prices on the profitability of maize farming in South Africa. The long term average maize yields were determined spatially and input costs of between R2000/ha (to the west) and R3500/ha (east) were used as inputs. With a nett maize price of R750/ton nearly 95% of farmers will make a loss of up to R600/ha with a long-term average yield. With a nett price of R600/ton, all farmers with a yield equal to the long-term average yield will suffer losses of more than R600/ha.

Reduced farm income due to lower grain prices could also result in the lay-off of farm workers. This in turn could have a negative impact on rural communities and economies. It is estimated that the agricultural sector employs about 940 000 people. Farm labour is therefore an important employment source in many rural areas.

- **Food security vs income security**

Food security is often hampered on ground level by income security. If income is low, it can result in less money for essential needs like food, clothing, etc. in farming communities. This could also have secondary effects on agribusiness and even the small grocer shop in a small village. The end result can be an increased influx of people to urban areas. Income security (low prices) can also have a very serious negative effect on Black Economic Empowerment initiatives in agriculture and even other business sectors.

### **Creation of new markets**

Modern technology has made huge surpluses in the production of grain a reality. This over-production has serious consequences for the profitability and sustainability of local grain production. Between 1990 and the present production season the variation around the average maize yield was 24%. In practice, this means the yield of maize in any year can be about 24% higher or lower than the longer term average, causing great variations in price. This situation can only be resolved by establishing new markets.

New markets can be created in three ways. Export markets could be expanded, products could be differentiated and, new markets can be created through the production of biodiesel and ethanol. Excess maize could also be sold to countries such as India, China and Japan.

The production of biodiesel has the potential to create substantial new markets for grain producers and open up possibilities for new and particularly black entrants into grain farming. Grain SA is also doing its utmost to sell the concept to both the government and the public. One of the reasons for the introduction of biodiesel produced from oilseeds (sunflower and soja-beans) is that the supply and demand of all grains would be stabilized over the long term, to the advantage of producers as well as consumers.

Another option that should be explored is the production of ethanol from maize. However, the construction of ethanol fermentation plants are expensive and government policy changes would be needed to make bio-fuel viable.

### **Conclusion**

The current low maize prices can be attributed to an expected carry-over stock of three million tons, good harvests in the USA, the strong rand and good rains in local maize-growing areas. Presently we have precisely the reverse market and price conditions that led to the spike in maize prices in the opposite direction at the end of 2001/beginning of 2002. In essence the maize industry is experiencing two classic examples of export and import parity pricing.

A quick remedy for the current situation would be for government to buy the excess maize and either keep it as a grain reserve or donate it as food aid. However, this would be a very costly exercise and could set a dangerous precedent.

From an economic point of view there is not sufficient evidence that warrants government intervention at this stage. All the conditions for a well functioning market are in place and there is no evidence of market failure. However, the DoA should continue to monitor the situation closely.

It is also evident that the DoA urgently needs to conduct research into the affect of the El Nino phenomenon on sporadic and localised rainfall, the impact of the drought on the physical and natural resources of the country and the impact of changed weather patterns on agricultural production.

As the production of grain crops is critical for economic growth and development as well as the attainment of food security, it is imperative that the DoA finalise the policy document on grain production in South Africa. The draft policy is geared towards increasing productivity, profitability and competitiveness of the sector, and also aims at facilitating proper co-ordination of grain production issues.