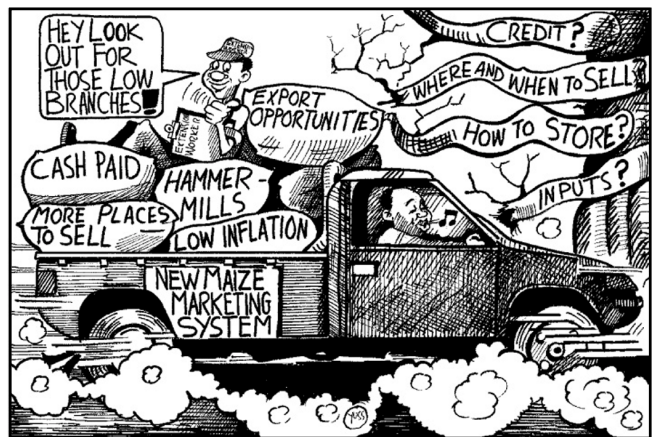
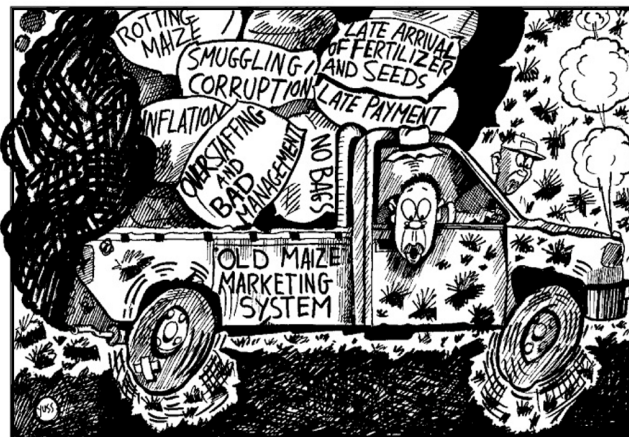


The present field crop industry arrangements can be depicted as reflected in the following diagram.

Previous	New	
<p>MAIZE BOARD</p>	<ul style="list-style-type: none"> • Technical Advisory Forum • Maize Trust • South African Grains Information • Services (SAGIS) 	<p>Free market, producers negotiate spot, contract or future prices, according to market forces.</p> <p>Phytosanitary requirements and PPECB certificate needed for exports.</p>
<p>WHEAT BOARD</p>	<ul style="list-style-type: none"> • Wheat Forum • Winter Cereal General Trust • Winter Cereal Research and Development Trust • SAGIS, SA Grain Laboratory 	<p>Free market, prices determined by market forces.</p> <p>Phytosanitary requirements and PPECB certificate needed for exports.</p>
<p>OILSEEDS BOARD</p>	<p>Oilseeds Forums:</p> <ul style="list-style-type: none"> • SA Sunflower Seed Forum, SA Groundnut Forum and SA Soya Bean Forum • Oil and Protein Development Trust • National Oil and Protein Seed Producers' Organisation (NOPO) • SAGIS 	<p>Free market, prices determined by market forces.</p> <p>Import tariff 0,65c/kg for soya beans and 10 % for sunflower-seed.</p> <p>Phytosanitary requirements and PPECB certificate needed for exports.</p>
<p>COTTON BOARD</p>	<ul style="list-style-type: none"> • Cotton SA (Section 21 Co.) • Cotton Trust 	<p>Free market, prices determined by market forces.</p> <p>Import tariff of R1,60/kg which may be rebated.</p>
<p>SORGHUM BOARD</p>	<ul style="list-style-type: none"> • Sorghum Forum • Sorghum Trust • SAGIS 	<p>Free market, prices determined by market forces. Import tariff 3 % <i>ad valorem</i>,</p> <p>Phytosanitary requirements and PPECB certificate needed for exports.</p>



The overall impact of the marketing reform has been a significant private sector response:

- The establishment of an **Agricultural Markets Division (AMD)** of the South African Futures Exchange (SAFEX).
- **Farmers** are becoming more involved in **managing their risks by means of storage** (especially in the case of maize) and by forcing the **cooperatives** which own the vast majority of grain silos to **become more commercially orientated**, and by forward contracts and diversification.
- There has been an **acceleration in the establishment of new enterprises in the food and agricultural sectors**.

Price formation in the field crop industry

The small-scale farmer is just as much exposed to varying prices as is the commercial producer except when he uses his crop for own consumption or to feed animals. In such a case, the income that the small-scale farmer makes (by not selling his product) is equal to the expenditure which he/she would make if he/she had to purchase the crop in the open market.

For both small-scale farmers who want to expand and become commercial producers, as well as those who are satisfied to just subsist, it is important to have a good understanding of the markets in which they compete. Understanding price formation is one of the fundamental requirements in order to do successful marketing planning.

The domestic price of field crops is determined by several interlinked factors, these factors are discussed in the subsequent sections of this chapter.

Export and import parity

South Africa is only a small producer compared to other countries and is thus a price taker (meaning that we can not influence world prices). Because of this our local prices can only be between import and export parity. This is clearly illustrated in Figure 1. An **import parity price** is defined as **the price which a buyer will pay to buy the product on the world market**. This price will include all the costs incurred to get the product delivered at the buyer's destination. An **export parity price** is defined as the **price that a local seller could get by selling his product on the world market e.g. excluding the export costs**. The price which the seller gets is based on the condition that he deliver the product at the nearest export point (usually a harbour) at his own expense. World prices for field crops are usually quoted in US Dollars.

Import and export parity prices are published by the South African Grain Information Service (SAGIS) in order to help producers in their marketing planning.

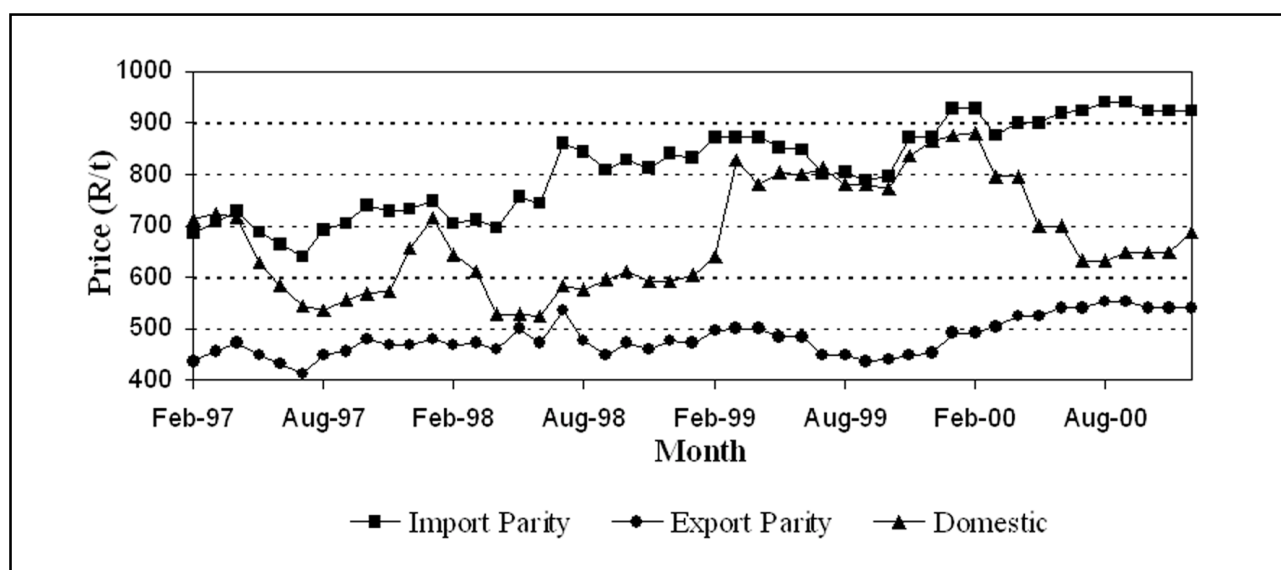


Figure 1: SA yellow maize prices (1997 to 2000)

See Appendix A for the calculation of import and export parity. Source: SAGIS and SARB, 2000.

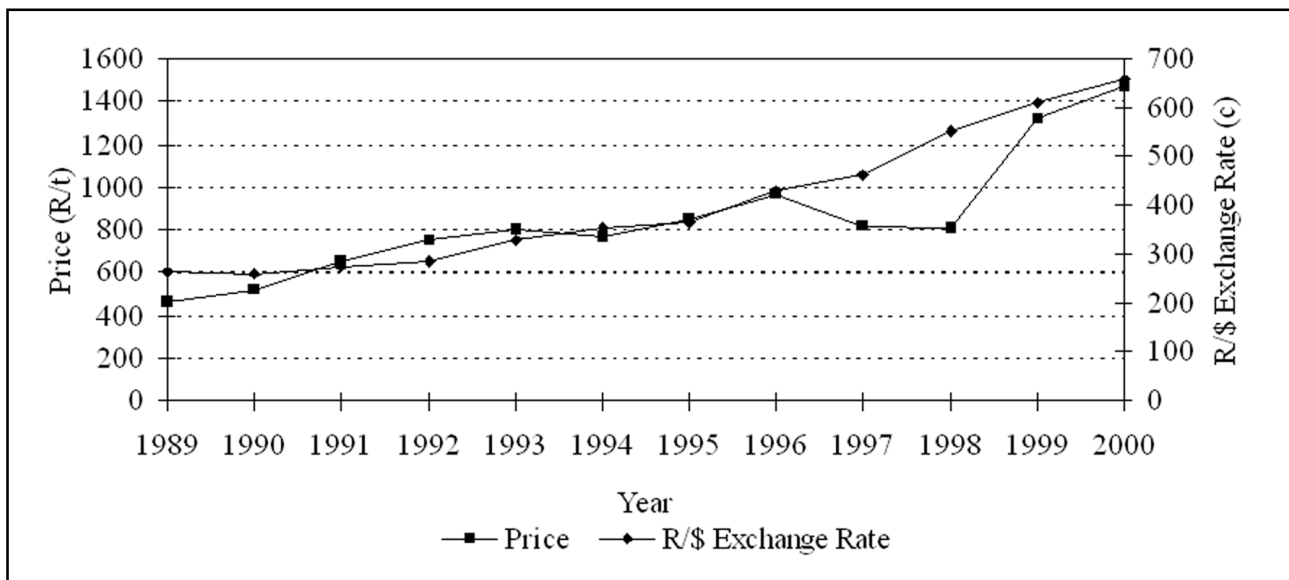


Figure 2: Domestic wheat prices compared with the R/\$ exchange rate (1989 to 2000). Source: NDA, 1999; SARB, 1999.

The following advantages of understanding import and export parity prices are:

- The **producer price** (the price that the small-scale farmer will receive on his farm) **can be estimated from it**.
- **Cyclical and seasonal movements** in these prices could be used in **marketing planning**.
- With these prices as background knowledge, it is easier to follow discussions on price movements.
- With **these prices in mind** it is **easier to negotiate** a good price **with possible buyers**.

Exchange rate

As mentioned earlier, domestic grain prices are largely derived from international grain prices. Changes in the exchange rate are of particular importance to domestic grain producers since devaluation in the exchange rate will benefit domestic grain producers. In other words, if the Rand exchange rate loses value against the Dollar it is more expensive to import grains, thereby putting upward pressure on domestic prices. Figure 2 depicts the relation between domestic wheat prices and exchange rates.

When looking at international prices of oilseeds it is not the oilseed price that is important, but rather oilcake and oil prices. The **price that an oilseed processor is willing to pay** (to any producer) for oilseed should therefore **be derived from the import parity price of oilcake and oil**. The prices that domestic producers receive for their oilseeds are thus directly influenced by the world market prices for oilcake and natural oil. Again it should be stressed that the Rand-Dollar exchange rate has a huge impact here. **World prices for oilseeds have decreased in recent years** which could be ascribed to continuous bumper harvests in major producing countries. The depreciation of the rand has to a certain extent shielded South African producers against this price decline. Although world prices for soya-bean oil and soya-bean oilcake have decreased in the last three years the import parity prices of these products have moved slightly upwards.

Supply and demand

Although world field crop prices determine the South African prices, domestic supply and demand still determine whether the domestic price approaches the import or export parity price. In theory, when prices go up there will be a fall in demand and an increase in supply. In time, the amount supplied at a particular price will come to equal the amount demanded.

Summary of quantity supplied and quantity demanded

Quantity supplied	Quantity demanded
<ul style="list-style-type: none"> • Prices of substitutes • Price of the product usually produced • Weather conditions • Access to market channels • Access to inputs • Access to storage facilities 	<ul style="list-style-type: none"> • Prices of substitutes • Changes in tastes, preferences and income • Price and quality produced • Different markets

In order to obtain a thorough understanding of the supply and demand it is necessary to understand the following:

Quantity supplied

- **Prices of substitutes**

If a farmer who usually produces maize is of the opinion that the price of, for example, sunflower seed will increase substantially in the next season he/she will rather plant sunflowers than maize, thus reducing the amount of maize produced. This could have a significant impact on maize production if a lot of farmers have the same opinion of the market.

- **Price of the product usually produced**

Farmers production decisions are also a function of the price of the commodity they would like to produce, i.e. a farmer that wants to produce maize will take into account the previous season's price, as well as the price he/she is expecting to get for the coming season. If price expectations are favourable the chance is very good that such a farmer will produce maize, especially if this is the crop that he/she is used to planting. However, if price expectations are negative this farmer could decide to plant something else.

It is important to note that from a small-scale farmer's point of view maize is important in terms of household food security, as well as feeding animals. Even if prices may not be favourable for the coming season farmers may still decide to plant maize, but may also produce a crop like sunflower that can be marketed for cash. Thus, it is important that the extension officer does not only gain knowledge on the marketing of one crop.

- **Weather conditions**

With the unpredictable weather patterns in South Africa it is not strange that record planting of a specific crop could result in lower than average crop. Weather conditions also have a profound impact on the quality of the crop.

- **Access to marketing channels**

Access to marketing channels could have an impact on the quantity supplied in a specific period. For instance, if farmers are situated far away from markets it could happen that most of their crop will never be actually delivered to the major markets. To obtain a reference price for these farmers if they want to sell their product (for instance to a neighbour) is very important. SAFEX could be contacted in order to get a reference price in this situation.

It is important that the transport differential is taken into account when calculating the price in a specific area. For example, if the transport cost from Randfontein (this is where Safex prices are quoted) to Mafikeng is R80 per ton for maize and the SAFEX price is R700 per ton then the going price for maize will be approximately R620 per ton in Mafikeng. Other transaction cost, such as delivery to the buyer, packaging, etc. must also be deducted.

- **Access to inputs**

The financial position of a producer at the beginning of the production season may have a significant impact on his/her planting intentions. The more difficult it is to access production loans the less will be planted in that specific production season.

A further restricting aspect is the availability of inputs such as fertiliser, pesticides, herbicides, seed, fuel and labour. It is important to note that these inputs will always be available if one is prepared to pay the price. If these inputs become too expensive in a certain region it would be advisable to consider an alternative crop which requires less inputs.

To compare the profits of different crops it would be necessary to obtain enterprise budgets for the crops. Cooperatives usually have enterprise budgets for the different crops grown in different regions.



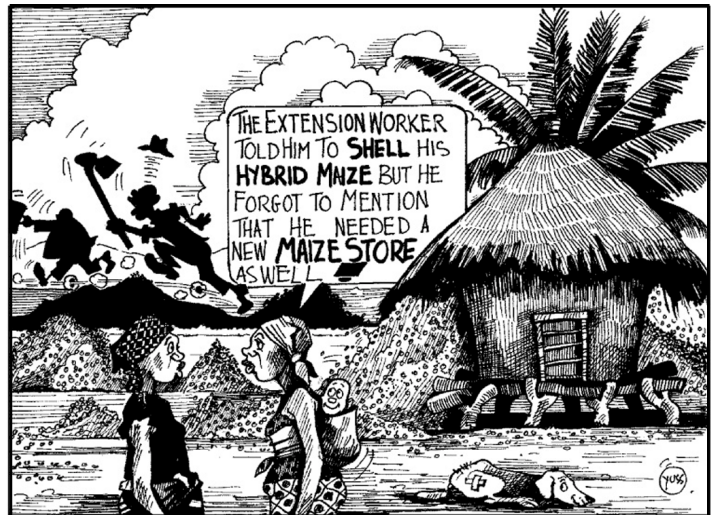
Hence, the extension officer could greatly assist producers in determining whether planting a specific crop is profitable or not.

- **Access to storage facilities**

If a farmer don't have access to storage facilities it will mean that he/she will have to sell all of his/her crop at the time of harvest. Usually this is the time of the year when the prices are at their lowest (June/July for maize, March for sunflower, April for soya beans, June/July for sorghum, November for wheat). **Helping farmers to identify storage facilities in their region** could help them do more effective marketing. Most of the cooperatives in field crop production areas do have facilities.

The cost of storing should always be evaluated against the benefits of storing. For example, if a producer would like to store his/her maize until December he/she should determine the price at which maize could be sold in December (again the Safex price could be used as barometer). Also, the producer should find out the storage cost until December. If the storage cost is deducted from the December price and the price is still higher than the price at harvesting then it could be worthwhile to store the maize until December.

It should be noted that the producer should **take into account the cost of transporting the crop to the storage facility and fetching it again. Selling the crop whilst it is still at the storage facility is preferable.**



Quantity demanded

- **Prices of substitutes**

The price of the product determines the quantity demanded of that product. The reason for this is that consumers could switch their demand between different commodities. If the price of maize meal increases drastically due to a shortage of maize consumers would rather buy bread or rice. It is also true that the demand for most agricultural commodities is relatively price inelastic. This entails that the demand for a product does not change very much in response to price changes. Because of taste and preferences consumers do not easily change their staple food. This is, however, sometimes forced onto them by financial constraints.

- **Changes in tastes, preferences and income**

This is a factor which develops over time and it is not that evident in a specific year. In South Africa there is for instance a tendency for **consumers in the urban areas to consume more bread and rice and less maize meal.** Urbanisation also leads to a larger demand for bread than maize meal. With a higher income in urban areas than in rural areas it is also easier to change between different food items.

If the per capita income in South Africa increases it will mean that people can afford more luxurious foods and, accordingly, they will consume less of the traditional staple foods.

- **Price and quality produced**

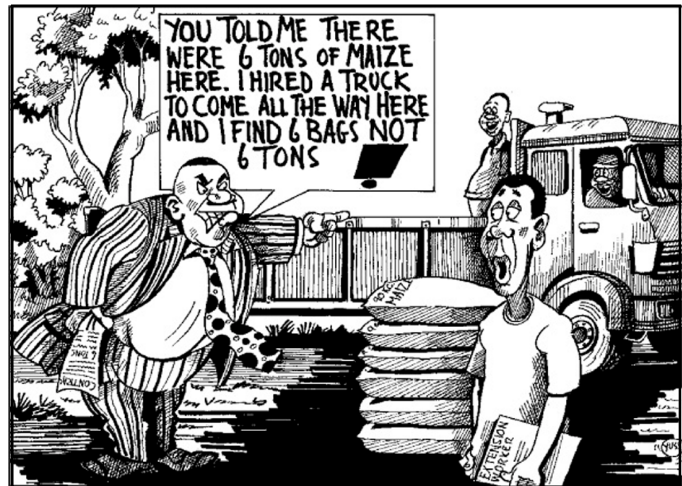
In South Africa there exist good grading standards for all the field crops. These standards relates to moisture content, damaged kernels, protein content and foreign-matter content. Note should be taken of the fact that traders and millers are very aware of quality.



There exists a **distinct price difference between different grades of field crops**. In a shortage year the price gap between low and high-grade products decreases. This is because millers don't have any option other than to make use of low-grade products. This can, however, only be done to a certain extent or the end product will become undesirable for the consumer.

- **Different markets**

The quantity demanded of a commodity is also determined by the availability of the commodity in a specific market. For instance, if there is a shortage of yellow maize in South Africa the animal feed industry will start to include white maize in the feed rations. This will increase the quantity of white maize demanded.



Price movements

As was already mentioned prices for grain products are usually the lowest during harvest, whilst they will increase steadily as the season progresses. Note that the lowest and highest prices from year to year do not necessarily coincide due to various factors that include, amongst others, weather conditions before planting, during the pollination process and during harvesting; stock position domestically and internationally; production intentions of domestic and overseas producers, tariff policy and demand conditions. Nevertheless, we can identify periods where prices are typically lower and higher during a particular season.

More specifically, **factors which can affect the seasonal price patterns of grain are:**

- Farmers may **decide to sell some of their crop to raise cash immediately** after harvest. They will try to sell at least as much of their crop to raise enough cash to meet their financial obligations, such as cooperative input accounts.
- **World stocks and world prices for commodities** have a great impact on domestic prices. This is because of liberalisation in agricultural markets in South Africa.
- It also happens frequently that **large traders feel that the price of a product may go up** in which case they may try to **buy** the product cheaply **at the beginning of the season** and store it until the price goes up enough for them to sell at a profit. There are at least five major traders who could have a profound impact on domestic prices.
- **If farmers feel that the price of the product will go up they may decide to store it and wait for higher prices. It is common for producers to store their product at the nearest cooperative silo at a predetermined fee.**
- The extent to which information is available has an important influence on prices. This tendency is best illustrated if one look at crop estimates. If the crop estimate in a specific month changes drastically from the month before there is a sudden and severe price movement for that commodity.

Price barometer

All the above mentioned factors are reflected in an SAFEX price for a product. This is because SAFEX traders are very well informed and react immediately on new information. **SAFEX is a futures market where a producer with a minimum of 100 tons of maize can sell his crop today for a specified price and deliver the crop at a specified date in future** (typically in harvesting season). By using this marketing alternative it is possible to fix a price at a certain level. This **decreases the risk of being exposed to fluctuating prices**. The following field crops trade on SAFEX:

- White maize
- Yellow maize
- Wheat
- Sunflower seed

SAFEX is typically used as the price indicator by buyers and sellers of these products. Derived prices in the different regions of South Africa differ due to transport costs from the SAFEX reference point, which is Randfontein.

Most producers only sell up to 30 percent of their crop on SAFEX. These arrangements are all legally fixed in futures contracts. It should be noted here that futures contracts are standardised. **These contracts are only available for first grade products and the minimum quantity specified is 50 tons for wheat and 100 tons for maize and sunflower seed.** The only way in which small-scale farmers could make use of these contracts is when they produce more than the minimum required quantity of first grade products. **Producers make use of brokers to market their products on SAFEX.**

Transaction cost

Over and above the factors which influence South African prices for field crops, there are some additional factors which have to be taken into account in determining the price which producers will receive. These include all the costs that occur in the transaction process and have to be paid by the producer. Transaction costs could include some or all of the following aspects:

- Transport cost to the delivery points such as the nearest silo.
- Commissions.
- Losses in quality before delivery.
- Handling costs up to delivery.

It is important that producers take note of these factors in order to do financial planning for the next season.

Grading of maize

The current quality regulations and requirements are set forth in *Agriculture Product Standards Act no. 119 of 1990*. **A government notice released in August 1998 publicized all maize standards in “Regulations Relating to the Grading, Packing, and Marking of Maize Intended for Sale in the Republic of South Africa.”** The regulations set forth strict standards regarding maize quality. Three classes of maize are:

- white maize,
- yellow maize, and
- other maize.

Within white and yellow maize classes there are grades 1, 2, and 3. **There are several minimum requirements for maize to be graded. These include:**

- free from musty odours,
- free from dung,
- free from insects, and
- free from large stones.

Maize should not have more than fourteen percent moisture.

There are also strict standards for the actual grading process and packaging requirements. Maize of different grades must be packaged separately and rebelled with the specific grade.

Procedures to follow when trading on SAFEX



- *Produce more than minimum required quantity of first grade product.*
- *The producer must have enough money in reserve to pay in when the prices decrease.*
- *Find out what future prices are forecast at harvesting time (this information could also be obtained from the broker).*
- *Contact a broker.*
- *If satisfied that price for available contracts is high enough sign contract with broker. The price should at least be higher than production costs.*
- *The specified quantity in the contract is now sold with the contract. This contract could be sold at any time up to delivery date.*
- *An initial margin and commission fees are payable when the contract is signed.*



Processes for determining harmful substances and sampling are defined. **Foreign matter, defective kernels, other coloured kernels and pink coloured maize kernels are all factors that determine the specific grade for white and yellow maize.** The processes for determining these factors are also precise.

Maize is graded several times throughout the marketing process. It is graded when it is delivered to and sold from the silo, by consumers, by the PPECB (a government agency), and by any possible exporters. Any person within the marketing chain can appeal against the specific grade.

Marketing channels

Small-scale farmers can be divided into those that produce grain for household and marketing purposes, and those that produce grain only for household purposes. The latter group will seldom get involved in the marketing of grain since they would rather feed it to their cattle or sell it to neighbours.

The former group are those farmers who are able to produce grain in excess of their household needs, i.e. human and livestock consumption. The surplus grain is used to improve their cash flow situation by selling grain to willing buyers that extend the borders of the communal villages.

Before ways in which grain can be marketed are discussed it is important to take note of the following:

- **Knowledge of extension officers** on the way **grain marketing** is done in South Africa is **extremely limited**. This is due to the fact that extension officers have had **little exposure** to practical on-the-ground-marketing actions.
- **It is common that farmers are guided as to how to market their grain, but they do not take action.** This is mainly due to the fact that marketing of grain in most cases **requires a certain degree of organisational ability**. Experience of organisations working with small-scale producers as far as marketing of grain are concerned show that **once a farmer has completed the whole process** he or she is much more **willing to take over responsibility for marketing**.
- Grain South Africa (GSA) established an **Agricultural Development Office (ADO)** that, amongst others, **focuses on assisting small-scale farmers to market their produce**. This service involves **linking sellers with buyers** in different regions, **providing advice on the marketing tools available and information on grain prices** and market conditions, as well as **guiding producers** from the beginning of the marketing process **until the farmer receives payment**. A hands-on approach is followed to assist small-scale farmers as far as possible.

Information on market conditions and marketing is distributed through various channels, namely radio (Motsweding FM), newsletters (the Pula Newsletter in South-Sotho, North-Sotho and Twana, the Imvula Newsletter in Zulu, Swazi, Xhosa and Ndebele) and through enquiries. Contact details are included at the end of this document.

- Note should be taken of the fact that **small-scale producers do use Safex** as a marketing tool, although at present **on a limited scale**, either on an individual basis or as groups. GSA also actively promotes the use of SAFEX amongst small-scale producers.
- Lastly, before discussing the different types of marketing channels that could be used by small-scale producers it is important to take note that **for extension officers** to be successful in terms of **assisting small-scale farmers** need to:
 - have **knowledge on how marketing of grain works**,
 - know how the **different marketing options work**,
 - gain **practical experience of marketing**,
 - have **contact numbers ready when any problems are experienced**, and
 - get **involved in study groups**.



Different types of marketing channels

The available **direct marketing channels** for the South African grain and oilseed producer are as follows:

- Cash market sales.
- Storage.
- Forward contracts.
- Future Exchange contracts.

Producers can also **market their grains and oilseeds indirectly** through their own intensive livestock production systems.

Direct marketing channels

Various ways exist to market grain. In order to understand the ways grain can be marketed, one needs to first know the different channels that can be used and also how to make use of them. For this reason, the direct marketing channels are divided into Non-futures exchange and Futures exchange marketing channels.

Non-futures exchange marketing channels

Extension officers could be of great help when it comes to the marketing of grain by small-scale farmers. Before we get to the different marketing alternatives, farmers need to be informed about some issues before marketing, or even planting, could take place.

The extension officer could assist the small-scale farmer as following:

- **Identify the demand for the different types of grain**

The extension officer must contact buyers and find out what their demand is. This involves quantity and quality requirements, delivery dates, whether transport is available, prices offered, and how payment will be made. Also note that buyers include cooperatives, traders, millers, feedlots, other farmers, etc.

The extension service needs to **compile a list with contact details of all potential buyers** in a region. Such a list could then be distributed amongst extension officers in different regions to enable marketing over regional borders. Another valuable source of information is the Agricultural Development Office (ADO) of GSA. GSA is also involved in small-scale farmer study groups in order to assist and educate them with regard to the production and marketing of grains.

- **Provide information on quantity and quality restrictions**

It could be of concern since the demand for different grades differs within and between marketing seasons. Hence, extension officers should make sure that they source the necessary information from buyers.

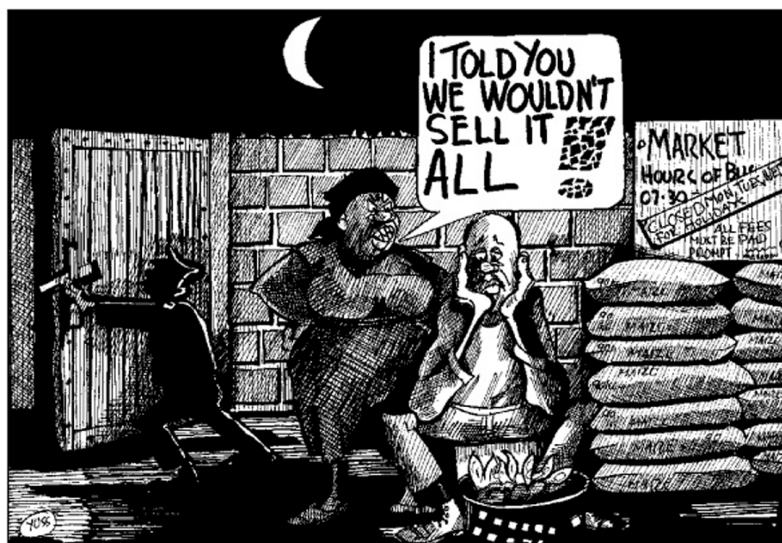
- **The trading hours of the different buyers need to be documented**

Farmers must plan their transport accordingly. Transport plays a critically important role in the marketing of grain. For this reason the extension officer should make absolutely sure that **farmers or groups of farmers have the ability to organise transport of grain to assembly points** or to buyers.

It is essential that delivery take place as arranged, otherwise buyers will lose faith in the farmers. Transport can be contracted where necessary, farmers can use their own vehicles or buyers could provide transport. **Extension officers should encourage farmers to plan transport in advance.**

- **Grain crop estimates**

Extension officers must also make an estimate of the potential grain crop in the specific region. This could be of great help to buyers and producers when it comes to the collection and transport of bulk quantities.



- **Determining the price**

Prices offered by buyers must be in line with supply and demand conditions. Extension officers must constantly be aware of the factors affecting prices in each region, as well as how the prices are derived. In the case of maize, wheat and oilseeds, prices are derived from the Futures Exchange prices. Variation in the futures prices, as well as fundamental aspects in a region, must be taken into consideration when local prices are considered.

- **Build a network with potential grain buyers and sellers**

A complete record-keeping system should be developed (quantity bought/sold, quality sold and quality required, transport cost, distance between potential buyers and sellers, prices paid for different grades, etc.).

Buyers need to be informed of production activities in the rural areas.

E.g. sorghum processors buy large quantities from small-scale farmers due to the good quality produced. (Only specific cultivars.)



Networking between sellers and buyers with the assistance of extension officers is also a way to expose small-scale farmers to other marketing possibilities and to start to commercialise grain production in rural areas. This will also provide a basis for hands-on experience for extension officers. Note that the ADO is also a valuable contact to get potential buyers and seller in contact with each other. The main advantage of ADO's is that they are involved from the beginning of the marketing process until payment to the producer.

Close cooperation between extension officers and the ADO during the marketing process could significantly enhance extension officers' knowledge and ability to assist grain producers in the marketing of their produce.

- **Consider inviting potential buyers to the production region**

This may enhance the relationship between buyers and sellers, and also provide the buyers with an understanding of the difficulties small-scale producers face.

Cash market sales

- **For all grain types, the cash market is all the possible places where grain can be marketed for cash, directly after harvest, without having signed a contract. This could be a neighbour, a local miller, a cooperative, a grain trader or anybody else who wants to buy grain. The challenge is to identify potential buyers, as discussed above.**

- Selling of grains and oilseeds takes place in an unprocessed form to buyers in the region where the commodity is produced.

- The extension officer or the farmer must determine if there is a demand for, e.g. white maize. (The buyers inventory compiled by the extension officers should be used).
- It must then be determined **in what units the potential buyers want to purchase the maize**, i.e. bags of 25 kg or 50 kg or bulk. (This information should be established during the initial contact with buyers.)
- Buyers will usually indicate how delivery must take place. (This can be negotiated.)

The farmer could also mill the maize before selling it. This is not an uncommon practice. Examples exist where **small-scale farmers contract local millers to mill their maize and package it according to the needs of the farmers.** Obviously this comes at a cost that should be negotiated with the miller. The farmer could then sell the maize meal at existing market prices (e.g. maize meal in stores can be used as an indication). The farmer could also sell everything to the miller.

If such milling facilities do not exist a farmer or a group of farmers could purchase a second-hand hammer mill. By milling the maize before selling it the producer can offer a wider spectrum of value-added products.

- Payment occurs normally when physical delivery takes place.

- Prices are determined on a supply and demand basis in a specific region and can vary on a daily basis. It is very important that extension officers should have good networks in place to source such information on a regional basis. This information could then also be distributed to other extension officers in other regions.
- In the case of maize and wheat, prices are reported in the daily newspapers, depending on the region and province, as well as on radio and in GSA newsletters (Pula and Imvula Newsletters). Sorghum prices are also reported in the same newsletters.
- In the case of sorghum, buyers buy the surplus production in the rural areas. **Small-scale farmers produce good quality sorghum due to the fact that it is hand-harvested.** Extension officers need to be aware of the cultivars available on the market. Certain buyers require certain sorghum cultivars.

Storage

- Storage forms part of the marketing strategy a farmer can follow.
- Grains and oilseeds can be stored on the farm if storage facilities are available or it can be stored somewhere else, normally at a cooperative, but storage costs are charged.
- In times of low prices in the cash market, stock can be stored to be sold at a later stage when prices are higher.
- Extension officers need to be informed of the crop estimates and the direction / forecasts for prices. This could influence the decision by the farmers whether to sell in the cash market or to store the grain. The storage costs should be taken into consideration.
- Extension officers therefore need to find out about the storage capacity in the region and the associated costs and the conditions (grade, moisture, packaging, etc.) having to be met to put grain into hired storage facilities. This will influence the feasibility of storage.
- Storage facilities need to be considered since small-scale farmers could benefit from sufficient storage space.

Forward contracts

- When the crops are still maturing on the land, **farmers can sell their produce by means of forward contracts.** Contracts are made available on an ad hoc basis by buyers in order to secure certain quantities. **Small-scale farmers in the Rustenburg and Mafikeng areas are, for example, already making use of forward contract to market their maize.**
- **Buyers such as millers, cooperatives, feedlot owners and also exporters make forward contracts available.** Extension officers can help farmers to identify possible buyers in their region.



- The applicable prices attached to the forward contracts can also vary on a daily basis, depending on what is happening in the market.
- The holder of the forward contract can sell his/her produce for the applicable contract price, regardless of the prevailing price in the market at the day of harvest.
- **Forward contracts exist for maize, wheat, beans and sorghum. Extension officers need to be aware of the contract specifications** as these specifications differ between buyers. If extension officers do not have the capacity to interpret the conditions of such contracts they should make contact with ADO.
- The following need to be considered when dealing with forward contracts:
 - The underlying price as specified in the contract.
 - The quantity related to the specific contract, as well as the quality.
 - Price premiums exist for better quality grain.
 - The date and place of delivery, as well as the method of payment.
 - Farmers must be able to meet the contract specifications.
 - If the farmer could not deliver according to the contract specifications on the day of harvest, what are the conditions? These conditions differ between buyers as well as the compensation applicable.

Marketing costs

- **Transport is one of the largest marketing costs** and varies due to distance, form of transport and the quantity to be transported.
- **Prices** for grain are normally **quoted as ex-silo prices**, meaning that the farmer needs to pay the silo costs. The table 1 shows the applicable costs:

Table 1: Marketing costs applicable to non-futures exchange marketing

Item	Costs in Rand per ton
Silo certificate	R1.00
Cash sales	No marketing costs
Storage per day	R27/t and 23c/day
Storage per season	R50.00

- The following aspects should be taken into consideration as far as marketing costs are concerned:
 - The **distance to the place of delivery**. The price offered for grain could look very attractive, but the transport costs could change the whole scenario.
 - **Transport conditions** are also of importance. Extension officers need to inform farmers of the different forms of transport available in the region, as well as the costs.
 - **Bulk transportation is much cheaper** compared with small loads. Farmers need to consider collective transport, also depending on the transport capacity available.
 - The **payment conditions** of the transport must also be known. This varies between transporters. Extension officers need to be aware of the loading, payment and insurance conditions of all the transport providers in the region and make the information available to the farmers.
 - In many cases the **buyers of grain can also provide the transport**. Transport costs are then subtracted from the prices paid to farmers and therefore no additional cash is needed to pay a third party.
 - **Grain can be transported in bulk or in bags**. Bags lead to additional costs, but are much easier to handle, depending on the size of the bag. Buyers prefer 50 kg bags, because they are much easier to handle than 80 kg bags. The availability of bags is therefore of importance.
- Figure 3 illustrates the logical steps in which marketing takes place. The marketing costs associated with the process are described in the previous paragraph.

Futures exchange marketing channels

As was mentioned, although SAFEX is not at present a major marketing tool for small-scale farmers, it is currently widely promoted by, amongst others, the ADO of GSA. Hence, the concept of SAFEX cannot be neglected. Role players in the grain industry acknowledge **SAFEX as a reliable price-making system. Making use of the futures market** enables the producer to **minimize price risk**. On the other hand, selling or buying contracts on the futures exchange is capital intensive and one needs to have the knowledge to utilize this unique risk-minimizing tool.

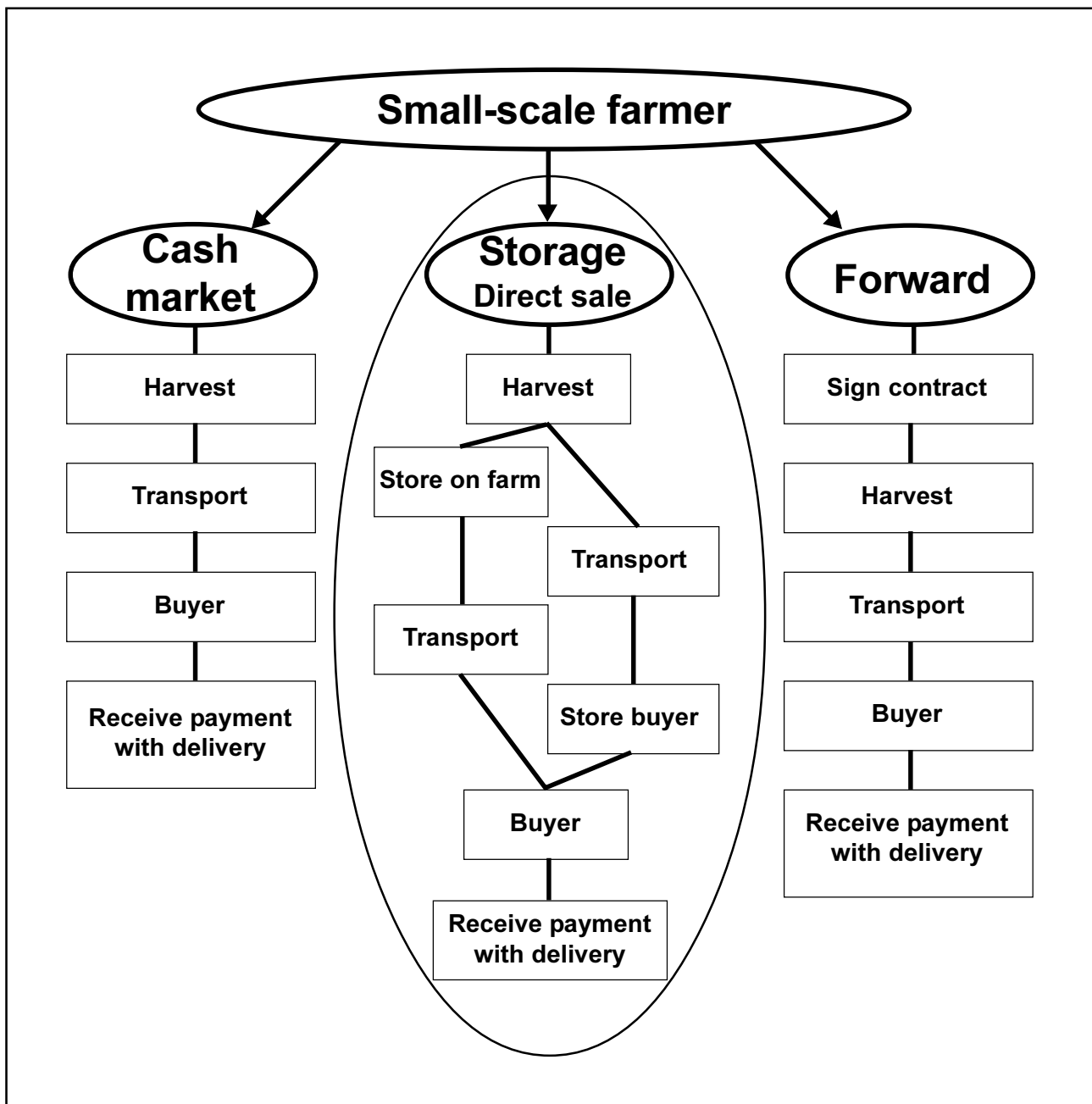


Figure 3: Non-futures exchange marketing channels

Visual aid 1

Extension officers and small-scale farmers must understand the process in order to understand the functioning of not only the South African grain market, but also the global grain market which has a significant impact on domestic prices. Extension officers and producers should contact ADO to assist them to make use of SAFEX and to determine if this marketing tool could be used in their specific situation.

Futures contracts (SAFEX)

- A **short** (to sell) **futures contract** is the right and the obligation to sell grain of a specific quality and quantity on a specific date in the future.
- Role players anticipate what the value of grain may be in the future.
- **Prices are determined on a willing-buyer: willing-seller basis**, given certain available information.
- Taking an opposite position on the futures market could terminate contracts. (If you sell a contract, you can buy it back again, relieving yourself from any obligations.)
- Only **white and yellow maize, wheat and sunflower** can be sold on the futures market in South Africa.

Example: The Meruti community farms in the Kroonstad region.

In November, they believe that prices can decrease further towards harvesting. They know they can sell their maize on SAFEX for delivery in July, for instance for R660/t, in 100 ton units.

This means that they can sell their maize in November for delivery in July by selling a July futures contract in November. The net farmer price can be derived as follows:

Net farmer price
Gross sales price (Randfontein)
R660 per ton
Minus transport cost Kroonstad
-R48 per ton
Minus brokers fee
-R2.60 per ton
Minus handling cost at silo
-R27 per ton
Minus Silo certificate cost
-R1 per ton
Net farmer price (Kroonstad)
R581 per ton

If the July maize price on SAFEX decreases to R400/t Randfontein, they will still receive R660/t (gross) for their maize. If the price increase to R800/t (Randfontein), they still receive R660/t for their maize. The farmers do not need to deliver their maize on SAFEX, but they can terminate their position by buying back the same amount of contracts before they are obliged to deliver.

Buy back contract in July if prices decreased
In November 2000 *
Sell July 2001 contract @ R660/t
In July 2001 *
Buy July 2001 contract back @ R400/t
Profit on transaction R260/t
Deliver maize in cash market @R400/t
Gross farmer price R660/t (R400/t plus profit of R260/t on transaction)*

In the above table it can be seen that the profit on the SAFEX transaction is added to the price received in the cash market for their maize which gives the farmers a gross price of R660/t. This is still their original selling price in November, but with no obligation to deliver their maize on a contract.

If the July price increased to R800/t on SAFEX, the following can be done:

Buy contract back in July
In November 2000 *
Sell July 2001 contract @ R660/t
In July 2001*
Buy July 2001 contract back @ R800/t
Loss on transaction R140/t
Deliver maize in cash market @R800/t
Gross farmer price R660/t (R800/t minus loss of R140/t on transaction)*

In the above example it can be seen that the farmers still received the original selling price of R660/t for their maize. These strategies “**hedge**” (protect) the farmers against price fluctuations and therefore minimise price and income risk.

* Randfontein prices

Checklist for extension officers

Item	Mark when completed
<ul style="list-style-type: none"> • Identification of potential grain buyers, their contact details and distance from sellers 	
<ul style="list-style-type: none"> • Identification of potential sellers of grain, their production capacity, location, and production history. 	
<ul style="list-style-type: none"> • Determine what type of transport is available and to what extent farmers can provide own transport 	
<ul style="list-style-type: none"> • Establish network with all relevant roleplayers. 	
<ul style="list-style-type: none"> • Determine prices offered by different buyers. 	
<ul style="list-style-type: none"> • Are the prices offered relevant and comparable with the prices offered in general in the region? 	
<ul style="list-style-type: none"> • Has the quality required by sellers been communicated to producers? (Extension officers must provide the necessary technical assistance.) 	
<ul style="list-style-type: none"> • What are their quality and quantity constraints and how can it be solved if there are problems? 	
<ul style="list-style-type: none"> • Is there a demand for value-added grain in the region? 	
<ul style="list-style-type: none"> • What is the price premium paid for value adding? 	
<ul style="list-style-type: none"> • In what form is the grain demanded? 	
<ul style="list-style-type: none"> • Inventory of information sources and distribution to other extension officers and farmers. 	
<ul style="list-style-type: none"> • What new sources of information are available and how relevant are the current ones? 	
<ul style="list-style-type: none"> • Are any production contracts and/or production programmes available for farmers in the region? 	
<ul style="list-style-type: none"> • Are any production and financial aid and support services available in the region? 	
<ul style="list-style-type: none"> • Do farmers have access to GSA newsletters? 	
<ul style="list-style-type: none"> • Have I contacted ADO? 	

SAFEX marketing costs

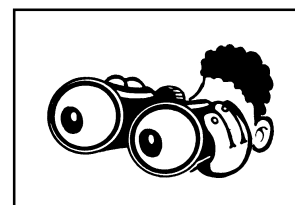
- Future-exchange related contracts have cash-flow complications. In the case of futures contracts, the **buyer or seller need to deposit R70/t for white maize, R60/t for yellow maize, R60/t for wheat and R50/t for sunflower**. This is called an initial margin. This deposit will be refunded when the transaction is terminated.
- **Variation margins are also applicable to futures contracts**. If the futures contract price moves against your position, you need to deposit a variation margin in order to maintain your position. If prices move R20/t against your position, you need to deposit the money within 24 hours.
- In the case of option contracts, you need to pay the premium. No variation margins are applicable to option contracts.
- Marketing costs could be as high as R120/t, including brokerage fees, interest, transport, handling costs, etc.

Market information

Since deregulation of the marketing boards, market information has become a sensitive issue. The following are of importance:

- The availability of information depends on the location and availability of communication technology.
- Since many **small-scale farmers do not have access to communication technology, the extension officer plays a very important role in the distribution of information**.
- Extension officers could **get hold of price information in the daily newspapers and occasionally on radio**. This information is based on commercial marketing.
- **Cooperatives, traders and other grain buyers make prices available at their offices**. Prices are sometimes published in local newspapers, not always. In cases **where buyers have longer-term connections** and collaboration agreements with small-scale farmers, **prices are made available via newsletters** specially designed for clients, as in the case of **sorghum buyers**.
- **Extension officers** must therefore be and **stay in touch with the buyers of grain** in the region and reveal the information to the small-scale farmers by means of radio announcements, local newspapers or even banners at local gathering places.
- Since GSA and other organizations have links with small-scale farmer study groups, production and marketing orientated, price information can be disseminated.
- The successful dissemination of information is directly proportionate to the availability of communication technology.

Focus points for the extension officer



What the extension officer needs to know

- What are the basic characteristics of the field crop industry in South Africa?
- How is prices formed in the field crop industry?
- How can small-scale farmers be assisted to overcome obstacles in the marketing of field crops?
- What are the opportunities for extension officers to assist small-scale field crop producers?
- Where can market information be obtained with regard to field crops?

What the extension officer can do

- The extension officer can organise study groups of 5 to 15 small-scale farmers and together explore the following:
 - How do you trade maize on SAFEX?
Organising a trip to SAFEX could be an excellent learning opportunity.
 - What are the price advantages of producing top quality grains?
The extension officer could inform farmers about the price differences between first and second grade grain.
 - What is the best transport alternative to get the product to the markets?
 - How could the profitability of small-scale field crop producers be enhanced?
- Provide small-scale farmers with a marketing strategy to obtain the best price for his product.
- Gather as much as possible market information on a continuous basis and give market indicators through to the farmers.
- Identify trustworthy buyers in the region.
- Bring small-scale farmers in touch with these buyers.
- Identify storing facilities and the associated costs and the conditions (grade, moisture, packaging, etc.) to be met to put grain into hired storage facilities.
- Inform small-scale farmers on how to make use of these facilities.
- Motivate small-scale farmers to join producer organisations.
- The extension officer can identify the demand of the different types of grain before the planting season. The extension officer must contact buyers and find out what their demand is.
- Trading hours of the different buyers need to be documented, because farmers need to plan their transport accordingly. The extension officer could then help the farmer to organise transport for his product. **Extension officers should encourage farmers to plan transport in advance.**
- Extension officers must constantly be aware of the factors affecting prices in each region, as well as how the prices are derived. In the case of maize, wheat and oilseeds, prices are derived from the Futures Exchange prices. Variation in the futures prices, as well as fundamental aspects in a region, must be taken into consideration when local prices are considered.
- It is important that the extension officer build a network with potential grain buyers and sellers. A complete record-keeping system should be developed (quantity bought/sold, quality sold and quality required, transport cost, distance between potential buyers and sellers, prices paid for different grades, etc.). Buyers need to be informed of production activities in the rural areas. For example, in the case of sorghum, processors buy large quantities from small-scale farmers due to the good quality produced. (Only of specific cultivars.) Networking between sellers and buyers with the assistance of extension officers is also a way to expose small-scale farmers to other marketing possibilities and to start to commercialise grain production in rural areas. This will also provide a basis for hands-on experience for extension officers.
- The Agricultural Development Office (ADO) at Grain South Africa is also a valuable contact to get potential buyers and seller in contact with each other. The main advantage of ADO's is that they are involved from the beginning of the marketing process until payment to the producer. Close cooperation between extension officers and the ADO during the marketing process could significantly enhance extension officers' knowledge and ability to assist grain producers in the marketing of their produce.
- Extension officers should also consider to invite potential buyers to the production region. This may enhance the relationship between buyers and sellers, and also provide the buyers with an understanding of the difficulties which small-scale producers face.

Strategies for the field crop producer

Market	Opportunity	Weakness
Cash market sales	For all grain types, the cash market is possible where grain can be sold directly after harvest, without having signed a contract. This could be to a neighbour, a local miller, a cooperative, a grain trader or anybody else who wants to buy grain. The challenge is to identify potential buyers.	During harvesting there is a lot of the product available and it will not be easy to find a buyer. The risk of prices being low is quite high in the cash market.
Storage before cash market sales	In times of low prices in the cash market, stock can be stored to be sold at a later stage when prices are higher.	The costs of storage could become too high. A good price forecast is not always possible with field crops and it is also possible that prices could decrease towards the later stages of the marketing season.
Forward contracts	When crops are still maturing on the land, farmers can sell their produce by means of forward contracts. Contracts are made available on an ad hoc basis by buyers in order to secure certain quantities.	The applicable prices attached to forward contracts can also vary on a daily basis, depending on what is happening in the market. Farmers must be able to meet the contract specifications.
Future exchange contracts	Making use of the futures market enables the producer to minimize price risk.	Selling or buying contracts on the futures exchange is capital intensive and one needs to have the knowledge to utilize this unique risk-minimizing tool.
Sell a value added product	The farmer could contract millers to mill and package their product for them and then they can sell the processed product at market related prices. Farmers can also buy a second-hand hammer mill to mill their produce themselves. In this case the quality of the end product will however be lower. With regard to oilseeds it is also possible to buy an oil extruder and then sell oil and oilcake. The Protein Research Trust is involved in the development of a manual oil extruder specifically designed for the small-scale farmer.	The market for maize meal is very competitive and consumers prefer certain trademarks. There will be additional costs involved to do value adding to any field crop. The manual extrusion of oilseeds will result in lower quality oilcake than the industrial methods.

Marketing strategies for a range of field crops

Market	Opportunity	Weakness
Cotton	This is an excellent crop for small-scale growers . Studies have showed that cotton have a comparative advantage over other crops, such as maize and wheat in some areas. It is important that small-scale producer have the technical knowledge to produce cotton. Prices are also negotiated relatively early in the season, hence farmers would know what prices to expect. Handpicked cotton is regarded as having better quality than machine harvested cotton.	Cotton prices are derived from the Cotlook A-index which is sensitive to changes in the world price of synthetic fibres. This brings about price volatility since domestic cotton prices are derived from the Cotlook A-index. This caused severe price pressure on domestic cotton producers the past few years. Also, the SADC protocol entails that cotton could be traded without any duties from 2004. This means that domestic producers could face increased competition from countries such as Zimbabwe and Zambia. Since hand-picking constitutes a lot of labour farmers need to make sure they adhere to labour legislation.
Tobacco	Tobacco production holds good prospects for small-scale farmers as returns are relative high and can be produced on small areas. Contracts for the sale of tobacco could be negotiated with Magaliesberg and Potgietersrus cooperatives, but quality is of the utmost importance. There could also be possibilities to sell the crop after curing informally.	Production of tobacco is highly capital intensive and needs a high degree of technical knowledge. Drying of tobacco is also a specialised process that needs good management. Zimbabwe is the largest tobacco producing country in SADC, hence under the SADC protocol South African producers can expect severe competition as all tariffs must be phased out at 2004. This crop is labour intensive, hence labour laws and labour unions could result in high cost of labour.
Sugar	This crop holds good promise for small-scale production if linked with a contract to sugar cane mills . The quality is satisfactory. The price of sugar is determined by a specified formula which creates a limited degree of security for producers in terms of price risk. A sustainable income could be obtained on a small piece of land.	The area suitable for cane production is limited. Also, financiers are, in general, not willing to finance small-scale producer if they do not have a contract with a sugar cane mill. Sufficient water is an absolute necessity for production. Sugar cane production is capital intensive.
Maize	This crop is widely grown by small-scale farmers . Farmers or farmer groups that produce sufficient quantities could take advantage of marketing opportunities provided they have the capacity to market maize. In this regard the Agricultural Development Office of Grain South Africa could be of great assistance. Farmers need to market their maize through reputable market agents or could add value to maize on farm level provided they have the necessary equipment.	The tariff on maize imports from SADC is destined to reduce to zero, i.e. from 2004 no more tariffs will be levied on the importation of maize from SADC which produces large quantities of maize. Domestic maize prices are highly sensitive to climate and international price changes.
Wheat	Wheat production by small-scale farmers does not match that of maize production. Nevertheless, it could be produced on small-scale level provided that quality standards are adhered to since buyers are very sensitive for this.	Similar to maize, tariffs on wheat imports from SADC will be zero from 2004. Quality, pests and weather conditions play a critical role in the production of wheat. If harvesting equipment is not readily available harvesting could be a big problem as wheat harvesting by could result in quality and spillage.

Market	Opportunity	Weakness
Beans	Production and marketing potential for beans do exist for small-scale farmers in South Africa, especially for drybeans, black eyed peas and cowpeas . Critical issues to be successful are knowledge of the market and quality. Buyers are not interested in low quality beans. Beans are used for home consumption and informal marketing. Group marketing constitutes an opportunity for farmers producing low volumes on an individual basis. Qwa-Qwa serves as good example of small-scale bean production in South Africa. This is one of the best crop opportunities for emerging farmers.	Knowledge about production of beans is critically important. Management in terms of pests and disease, input costs and knowledge about the market could mean the difference between success and failure.
Bambara groundnut	Grown in Northern Province, huge informal market with numerous added value opportunities for sale such as a cooked product. No commercial competition. Good opportunities for small scale production.	Potential competition from other cheaper producers in SADC.
Soya beans	Resistant and robust crop. Could be valuable for emerging farmers if contracts can be obtained.	Essential a larger farmer crops and needs to be sold on to agri-business for processing no informal market.
Groundnuts	Excellent crop for small farmer. Strong informal market. Numerous opportunities for added value i.e. roasting, shelling, peanut brittle, peanut butter. Also opportunities for contracts to produce high quality for export.	Large-scale production needs to be linked to agri-business.
Sunflower seed	Some production in NW by farmers with over 50 ha. Niche market for sunflower for birdseed (i.e. lower oil types) but needs a contract.	Strong competition from imports. Needs large-scale production. Small-scale processing can't compete against large scale processors
Sorghum	This crop holds opportunity for small-scale farmers in that it could be used for home-brewed beer that could be resold on small-scale (a value-added activity in itself). Larger producers could secure contracts with large beer breweries and to matters. This crop is more resistant against dry spells than a crop such as maize.	As with other summer grain crops, such as maize, this crop experience relatively high risk as far as price is concerned. Although more resistant against dry spells weather conditions do play an important role.

Marketing strategies for oilseed producers

Market	Opportunity	Weakness
Groundnuts	<p>Holds opportunities for small-scale farmers in that it can be used as a supplement to existing diets and it can also be sold as “cooked-in-the-shell-groundnuts” in the informal sector. Such a product is very popular in certain rural areas of South Africa. Larger producers could secure contracts with groundnut processors. The bulk of the South African groundnut crop is destined for the edible market and superior quality is thus of great importance.</p>	<p>Groundnut prices in general are more predictable than that of a crop like maize and producers have received relatively favourable prices in the past. However, in the last production season groundnut production has increased with more than 60 percent compared to previous years. This could put downward pressure on domestic prices for groundnuts in future. Crop experience and variety choices (if one produces for a specific market) are very important. The danger of aflatoxin poisoning with rain in harvesting season is also quite high.</p>
Sunflower seed	<p>Sunflower is a very adaptable crop and could be produced in most parts of the country. Sunflower is not so exposed to theft which makes it a more suitable crop to produce in highly populated rural areas. Larger producers could secure contracts with oilseed processors in their region.</p>	<p>As with most field crops, this crop experience relatively high risk as far as price is concerned. Although more resistant against dry spells weather conditions do play an important role. The location of oilseed processors is important because transport could become a major factor if production takes place far from the market.</p>
Soya beans	<p>The demand for soya beans as a health product is increasing all over the world. This however entails that the product be further processed which is quite a sophisticated procedure and not recommended for small-scale farmers. It is however possible to buy an oil extruder and then sell oil and oilcake. The Protein Research Trust is involved in the development of a manual oil extruder specifically designed for the small-scale farmer. This extruder will also be suitable for the further processing of sunflower seed. Larger producers could secure contracts with oilseed processors in their region.</p>	<p>The production of soya beans is to a large extent hampered by its soil and climate requirements. Hot weather conditions in the flowering stage of the plant could lead to very little seeds being formed. Development of new and more adaptable varieties is however in progress. Experience in the production of this crop is very important.</p>

Useful information

Market information

SAFEX (South African Futures Exchange)

Facilitates Future Marketing
Tel: (011) 728 5960

CIAMD (Centre for International Agricultural Marketing and Development)

For market information and short courses on marketing.
University of the Orange Free State
Tel: (051) 401 2826

WJ Morgan & Associates

SAFEX Dealers and Brokers
Tel: (053) 963 1353

Propermark

SAFEX Dealers and Brokers
Tel: (051) 430 4446

Important institutions

NDA (National Department of Agriculture) Directorate Statistical Information

The NDA has a comprehensive historical data base on issues such as area planted, prices, production, etc. They also publish the *Abstract of Agricultural Statistics* that contain most statistical information pertaining to agriculture. The National Crop Estimates Committee is also with the NDA.
Tel: (012) 319 6000
Contact persons: Lindie Lezaar, Corné Dempers, Rudolph Abercrombie

NCEC (National Crop Estimates Committee)

Tel: (012) 319 6267
Contact person: Rona Beukes
E-mail: RonaB@nda.agric.za or MardaS@nda.agric.za
Web site: www.nda.agric.za

CIAMD (Center in International Agricultural Marketing and Development)

CIAMD provides weekly and monthly information on all the major grain commodities under the AMT trademark. They also do analysis with respect to business and marketing plans.
Tel: (051) 401 2838
Contact person: Francis Jurgens.
Web site: <http://www.agri24.com/Ciamd/Main/>
E-mail: jurgensf@landbou.uovs.ac.za

GSA (Grain South Africa)

They provide information on a wide variety issues pertaining to grain production, marketing and information.

Tel: (056) 515 2145

Contact persons:

Cois (Francois) Harman (Agricultural Development Office) Tel: (018) 642 1596 or 083 265 6210

Dr Kit Le Clus (All commodities)

André Ferreira (Maize)

Nico Vermaak (Soya beans)

Nico Hawkins (Sunflowerseed)

E-mail: nampo@mielies.co.za

Web site: www.agrimark.co.za/grainsa/oilseedsreport.htm

GSA also operates an Autofax service with weekly and monthly grain information.

Fax: (021) 406 3874

E-mail: dsi@nda.agric.za

ARC-Small Grain Institute

They are dealing specifically with wheat

Tel: (058) 307 3400

Contact person: Mrs. R Maré

Sorghum

Sorghum Forum

Tel: (012) 804 8504

Sorghum SA

Tel: (012) 329 4859

Sorghum Processors Association of SA

Tel: (011) 358 9766

Soya beans

ARC-Grain Crops Institute (Soya beans Research)

They specialise soya beans and sunflower.

Tel: (018) 299 1600

Contact person: Dr Michiel Smit

E-mail: ronel@igg1.agric.za

Dry beans

DPO (Dry Bean Producers' Organisation)

The Dry Bean Producers' Organisation (DPO) is a voluntary association of dry bean producers (commercial producers as well as seed growers) established by dry bean producers as a result of a collective need for operational services. They can be contacted for more advice on the growing of dry beans.

Tel: (012) 325 1850

Contact person: Claus Coetzee

Web site: www.beans.co.za

E-mail: dpo@agric.co.za

SAGIS (South African Grain Information Service)

SAGIS provide a wide variety of information pertaining to parity prices, stocks, weekly prices, etc.

Tel: (012) 325 2133

Contact persons:

Mrs Anna Enslin and Jana Robinson

E-mail: info@sagis.org.za

Web site: <http://www.sagis.org.za/>

Cotton

National Cotton Producers SA

Tel: (012) 804 1462

Contact person: Koot Louw

Clark Cotton

One of the major ginneries in South Africa.

Tel: (011) 836 8131

Cotton research

ARC-Institute for Industrial Crops

Tel: (014) 536 3150

Sugar cane

SA Cane Growers Association

Tel: (035) 772 3111

Contact person: Mr B Ashburner

Groundnuts

SA Peanut Company

Tel: (012) 663 4642

Contact person: Org de Witt

ARC-Grain Crops Institute (Groundnuts Research)

Potchefstroom

Tel: (018) 299 6100

Contact person: Dr Michiel Smit