IS INPUT INSURANCE WORTH IT?

BY

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The past few years have seen a number of financiers enter the agricultural scene. These financiers are prepared to provide farmers with production credit without security, on the provision that input insurance has been taken out to guarantee the harvest. This system has been in operation in other countries, and South Africa has merely taken it over. The only difference is that the South African farmer has to carry the full premium of the insurance, while government takes partial or even full responsibility for it in other countries. Crying before the South African government's door about who should foot the bill will be to no avail. Of more importance to the local farmer is whether it is worth partaking in such a system, given the fact that he or she must pay the premium and the costs involved.

How does it work?

Without exception, there are three parties involved in input-insurance systems in South Africa. The most important party is the insurer who is prepared to protect the harvest against any form of loss. As soon as an insurer becomes available, merchant banks are prepared to release funds for the financing of input. Invoices are submitted to the bank, and the input suppliers are paid directly.

The insurer demands that the harvest is monitored on a continuous basis in order to asses damage as early as possible and to ensure that the farmer is applying the right management practices. But the insurer is not prepared to personally control this process, so a third party acts as administrator and controller of the system. This third party may range from a department of the bank or a co-op to an agri-business or even a private business. The system cannot function without the three parties, and, obviously, a farmer is needed to sow before anything can take place.

As is the case with any kind of insurance, there is a risk involved, and insurers' aim is to keep their risk as low as possible. So, according to the system, 65% of wheat's long-term yield for at least the last five years is insured at the prices valid at the time the contract was signed. The insurance is 60% in the case of maize. Should a farmer's long-term wheat yield be 2,2t/ha, the insurer will be prepared to insure 1,4t/ha. Certain "fine-print" aspects are also applied. The percentage that can be insured can, for instance, vary from area to area and from farmer to farmer, depending on the risk involved. Input insurance is also generally taken out per farm, and not per piece of land as is the case with insurance against hail.

The repayment of the financing takes place according to the principle that the farmer cedes his or her harvest to the merchant bank by way of silo certificates. The farmer fixes the desired part of his or her harvest at a cash price, and this grain contract serves as repayment for the merchant bank. The farmer is free to sell the rest of the harvest for his or her own account. Should there be no harvest, the insurer settles the farmer's loan at the merchant bank as per the policy.

What is protected?

Input insurance covers the farmer against any incident outside his or her control that leads to a loss of harvest. It includes drought, wind, frost, floods and an uncontrolled plague such as rust or lice. It might seem like it should be included, but insurance against hail is additional to input insurance. Protection against a loss of grain quality is generally also contained in the policy. It must be made very clear that the insurance is only applicable to circumstances beyond the farmer's control, the so-called *"Acts of God"*.

Should there be a loss of harvest due to the farmer's own poor management, the insurance won't pay out. For this reason the fields are continuously monitored to ensure the farmer is constantly applying the correct management practices and that a loss of harvest can be fully attributed to circumstance beyond his or her control.

The insured value is applicable to the entire farm at the precentage allocated to the farmer and against the price at which the farmer insured his or her harvest. Should the entire farm's yield run lower than 65% of the long-term yield, the insurer will pay out that part under 65% against the price at which the farmer insured his or her harvest. It won't pay out at prevailing market prices, and it will also not pay out per land. Should the farmer encounter a total loss of harvest in one particular land, but his or her yield for the entire farm is still higher than 65% of the long-term yield, the insurer will not pay out.

What does is cost?

The provision of production credit with the aid of input insurance is more expensive that the normal procuring of product finance. There is an additional insurance premium, the interest rate can differ, a management fee is involved, and a handling fee can also be charged.

The insurer annually determines the insurance premium, depending on the claims/premium history and according to expected risk, such as an El Nino phenomenon, for example. The premiums are around 5,5% at the moment, and this does not include hail cover, which is obligatory. Apart from the fact that it is compulsory under input insurance, the hail cover is in effect not an additional cost if the farmer would have covered him or herself for this risk anyway.

The interest rate applicable to the finance is cheaper in real terms than that applicable to normal finance. As it is a group scheme, and the merchant banks' risk is relatively well covered, all clients are normally financed at prime rate, but it can even be done at lower rates. The farmer is wise not to make use of such a system where the interest rate is higher than prime.

The premium and the interest rate reimburses the insurer and the merchant bank for their participation in the system. The administrator consequently charges an additional management fee of approximately 2% on the insured value to cover his or her expenses. The management fee can be lower in some cases, but the farmer must be vigilant that this lowered management fee is not recovered in another way. In some cases a handling fee is charged in order to pay the farmer's inputs on his or her behalf.

Some administrators also demand that they have the sole right to market the farmer's harvest with this type of finance. The reason can be twofold: firstly, the administrator has ensured the harvest will be delivered to him or her, but second and probably also the most important reason is that the administrator can earn additional commission by personally marketing the grain. So the farmer should make double sure of the entire cost of the particular system in which he or she chooses to partake. It is not always that simple as some of these costs can be so hidden that calculations become quite difficult.

Consequently, the choice of an administrator is of vital importance. Firstly the costs involved play a part, but more important is the reliability of the administrator. There is quite a bit of administration involved in such schemes, and some administrators are just not fit for the task. Some farmers also had experience of insurance claims and marketing contracts that weren't handled correctly or of which the fine print wasn't explained to them clearly enough.

What is the risk?

Details about the the maize and wheat yield of COMPUTUS' group of farmers in the Eastern Free State appears in Figure 1 and 2. According to Figure 1, the long-term yield for wheat has been 2,2t/ha for the past seven years, although there has been a fair cit?? of fluctuation over the seven-year period. The value

of 65% of the long-term yield is 1,4t/ha. The real yield of this group of farmers was 1,7t/ha in 1996 and 1,4t/ha in 2000. The yield was 2t/ha and more during the other years.

In the case of maize, the long-term yield was 3,3t/ha for this group of Eastern Free State farmers. The yield amounts to 2,1t/ha in the case of 60% input insurance. This particular group of farmers' maize yield was very constant over the past seven years and never even neared or dipped beneath the insured yield of 60%. It must, however, be kept in mind that the risk of maize increases as the rainfall diminishes from the Eastern Free State to the Western Free State and the North West Province.

In the case of wheat, a number of farmers' yield would have been under the average of 1,7t/ha during 1996, and some of them would have benefitted from an input insurance system during that year. The average yield of this group of farmers was under 65% of the long-term yield in 2000, and more than half of these farmers could very possibly have claimed from the input insurance. With regards to maize, most farmers in the Eastern Free State would not have been able to claim in seven years.

Is it worth it?

At first glance it doesn't look as if it's worth protect maize in the Eastern Free State by taking out input insurance. In the case of wheat, it's possible to claim between once and twice every seven years. But does the risk end here? Figure 3 reflects the value of agricultural land in the Eastern Free State versus the total input costs of maize and wheat. If the farmer doesn't make us of input insurance, he or she has to offer his or her land or other assets as security of finance is to be obtained the traditional way. Input costs and land values pretty much corresponded up until 1999, and the farmer could offer his or her farm as security for finance. Land values remained constant after 1999 and even dipped a little, while input costs shot up. Since then land does not have enough security value for input costs. Should the farmer then experience a bad harvest, there will be too little security to keep him or her on the farm for another year, and he or she will lose the farm within the year. From this point of view, it is worth the additional cost of taking out input insurance, so that the farmer is firstly insured that he or she will not have a total bad harvest because the insurance will always guarantee 60 or 65% of it. Secondly, the farmer will not have to offer the land as security.

At a premium of 5,5% and an additional 2% management fee, it would be worth it for the Eastern Free State farmers to take out input insurance for wheat. At this rate (100% divided by 7,5%) it will take the farmers 13 years each to finance the guaranteed part of their harvests themselves. But it's possible that they'll take a below-average harvest off the field almost four times during this period of time. The maize equation doesn't work on the same principles in the Eastern Free State, but it might be a different picture in other parts of the summer-rainfall area.

To summarise

Input insurance has come to South Africa for good. We can debate about who should finance it, the government or the farmer. There is a cost involved, and finance in the traditional way will definitely be cheaper. The farmer, however, buys peace of mind with this input insurance and releases land or other assets as security. The harvest, guaranteed by input insurance, serves as security for the finance. These two aspects justify the costs of the input insurance and are in line with what most agricultural economists have been pleading for many years, namely that the farmer's repayment ability should serve as production finance and not the farmer's land and other assets. Input insurance now only guarantees the farmer's repayment ability. It is, however, very important for the farmer to take out this form of finance from a reliable administrator in light of the fact that many of them have run into troubles with the administration and the eventual paying out of insurance claims.

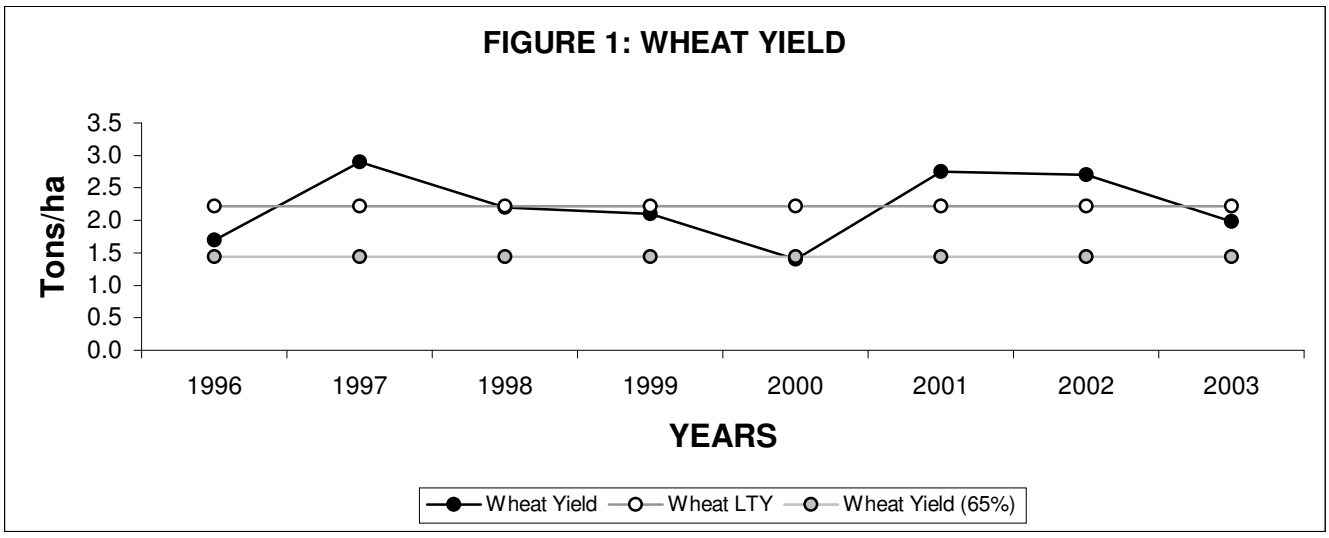
FIGURE 1: WHEAT YIELD
Tons/ha
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
1996
1997
1998
1999
2000
2001
2002
2003
YEARS
Wheat Yield
Wheat LTY
Wheat Yield (65%)

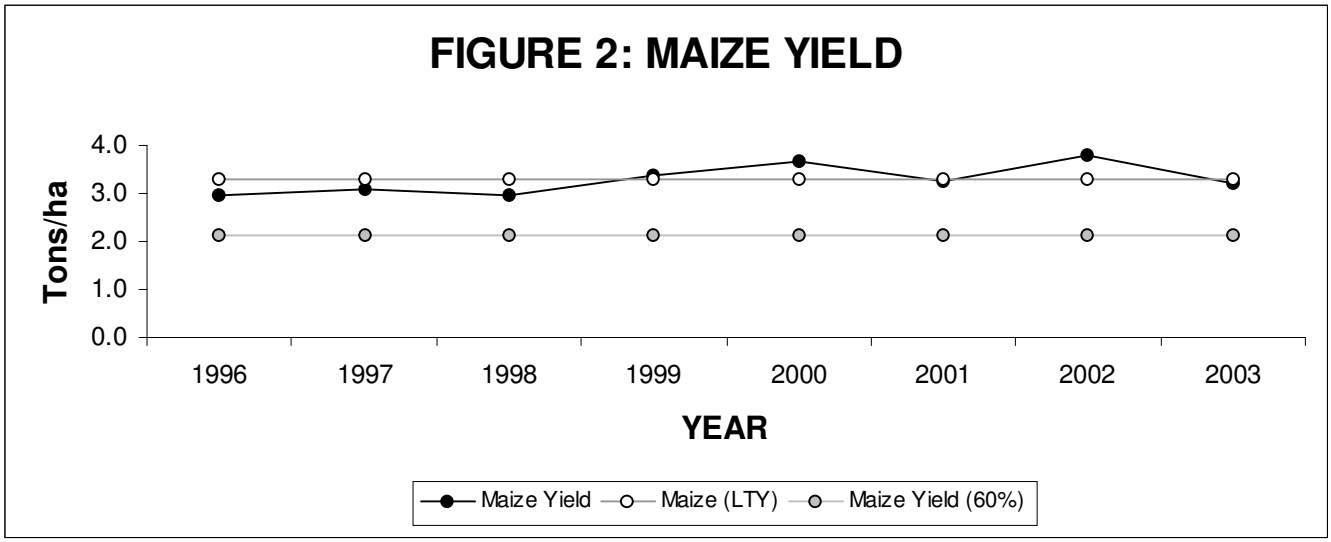
FIGURE 2: MAIZE YIELD
Tons/ha
4.0
3.0
2.0
1.0
0.0
1996
1997
1998
1999
2000
2001
2002
2003
YEAR
Maize Yield
Maize (LTY)
Maize Yield (60%)

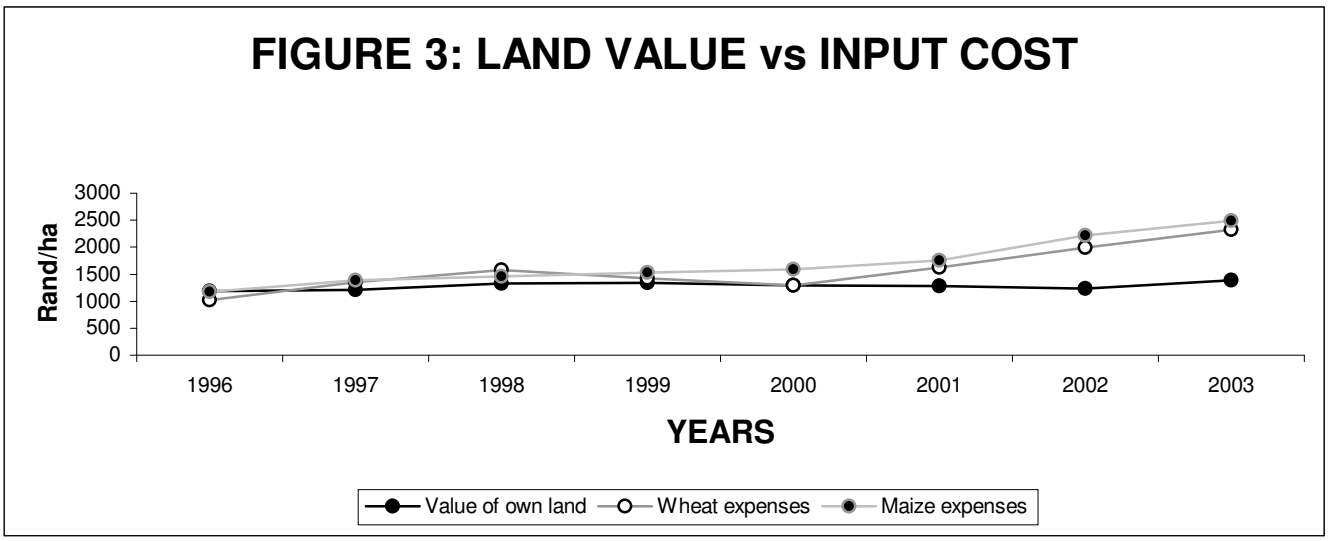
FIGURE 3: LAND VALUE vs INPUT COST
Rand/ha
3000
2500
2000
1500
1000
500
0
1996
1997
1998
1999
2000
2001
2002
2003
YEARS
Value of own land
Wheat expenses
Maize expenses