

Planning your summer crops now



SEPTEMBER IS A GOOD MONTH TO FINALISE THE PLANNING REQUIRED FOR THE CROPS TO BE PLANTED FROM OCTOBER 2011 TO EARLY JANUARY 2012 FOR THIS COMING SUMMER SEASON. SOME OF THE IMPORTANT FACTORS TO BE KEPT IN MIND ARE DISCUSSED BELOW.

It is assumed that over the years of your farming, or if this is your first summer crop that is to be planted, that you have completed a detailed physical and financial resource assessment of your farming operation.

The land areas for cropping of high, medium and low potential soils should be identified, measured and quantified. As a result of the high input costs and therefore high financial risks, to produce crops in the current cost price ratio only the high and medium cropping soils should be kept in production. Low potential soils should be put to permanent pastures.

Which summer crops are to be planted in my farming operation?

The main grain crop options to be considered are maize, white and/or yellow, sunflowers, soyabeans and grain sorghum. The choice and mix of crops cho-

sen should be able to use the available tractor power and implements efficiently over a maximum optimum nine week planting period from the 15th of October to the 20th of December planting period, fit into a well planned crop rotation system and cater for the livestock in your farming operation.

Grain sorghum is grown to a limited degree in South Africa these days and seems to have become a specialist crop grown in certain areas only. Remember also that the popular sweet sorghum is also sweet for the birds and they will eat as much as they can before you can harvest.

A financial comparison of the various crop options

The current Safex future prices for grain commodities per ton to be delivered from March 2012 to July 2012 for the various crops are as follows:

- Sorghum for delivery in March 2012 = R1 990 per ton.
- Soybeans for delivery in March and May 2012 = R3 365 per ton.
- Sunflowers for delivery in March and May 2012 = R3 998 per ton.

Grain SA magazine for
developing producers

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Planning your summer crops now



Mme Jane says...

I am worried, worried because it would seem that some government departments are trying to turn our producers into beggars. Beggars, who cannot, will not and do not do anything for themselves.

We have been visiting our various regional offices and have also been in KwaZulu-Natal (in the old Zululand). Through the communal land system, producers in the rural areas have access to land and although they do not "own" the land, their tenure is secure. The land has high potential and the rainfall is good. However, they are not farming. The department of agriculture has done the following:

- Bought tractors and equipment which is stationed at the offices of the department of agriculture;
- Hired drivers for the tractors;
- Bought all the inputs for the producers;
- Ploughed the lands;
- Planted the crop; and
- When the lands needed weeding – the producers told the department to come and weed the lands.

But the producers did take the crop! And what is more, the department is paying a consultant to put up a fence around the lands. The producers do nothing.

Is this what a producer is meant to do? Can you call yourself a producer if you do nothing on the land? Who is paying for this and what is the actual cost of each ton of maize that is being produced?

The producers tell me that in the rural area, the young girls are having babies while their own parents are still claiming the child grant for them. We are losing sight of what makes a successful nation. We need to take responsibility for ourselves and our own destiny. We were never meant to sit back and demand everything. There is far too much focus on "rights" and not any focus on responsibility.

In the normal cycle of life, adults work for a living (often working long hours to earn enough), then you make a home, then you marry, then you have children, then you educate the children so that they too can work, pay taxes so as to contribute to the running of the country. And so on... But not today, children have children while they are at school, producers are not working – they sit at home and wait for the government to "deliver".

Please, each one of us has God-given talents to use and we must live by the sweat of our brow. Please let us take up our responsibilities and get to work – it is producers who feed the world and unless we get working, we will face starvation as a nation.

- White maize for delivery in July 2012 = R1 842 per ton.
- Yellow maize for delivery in July 2012 = R1 837 per ton.
- Wheat (for comparison) December and March 2012 = R2 950 per ton.

Please remember that you cannot plant every crop everywhere! As far as the summer crops are concerned, maize is one of the crops that is planted very widely and it is the staple food for many people. Insects and diseases attack sorghum and so the "good" areas where the rainfall is high can be problematic for sorghum (and the market is limited). Sunflowers do not do well in wet areas. They drown easily and also contract fungus diseases. Soya beans are a more difficult crop to manage and harvesting is challenging for developing producers. With regard to the winter crops, wheat, barley, oats and canola – this is not the time to be considering these crops as they are planted during autumn.

Transport differentials

As a smaller producer it is safer to work out the crop income for the "spot" or in other words the local or cash price realised for your crop, taking into account the futures prices shown above, less the transport cost from Safex registered silo's. This transport cost is a theoretical transport cost, based on actual transport costs, that would be required to transport a grain crop from a registered Safex silo to Randfontein in the event that the futures grain contract entered into by a producer would be physically delivered in Randfontein. The registered silo list with transport differentials shown can be downloaded from the Safex website. Prices range from R150 to R300 per ton for sunflowers and R71 to R410 per ton for maize. Given the high current valuation of transport differentials it is most likely that smaller producers will deliver grain to their nearest official registered silo. The net price received by the producer is thus more likely the Safex future price less the transport differential less the transport costs from farm to silo.

For example, given that the differential for Bethlehem is R202 per ton and your contractor transport cost from farm to silo is R50, the net price and most likely spot price paid by your co-op will be R1 590 for white maize per ton. On this basis the net price valuation realised in your pocket for example for maize and sunflowers would be calculated as follows:

Yellow maize – Bethlehem

R1 837 less R202 (transport differential Bethlehem) less R50 (delivery to local silo) equals a net producer price of R1 585.

Sunflowers – Bothaville

R3 998 less R162 (transport differential Bothaville) less R50 (delivery to local silo) equals a net producer price of R3 786 per ton.

It is thus important to work out what net, spot, or local producer price will be realised where your farm is situated. It is thus largely a matter of historical luck rather than good planning on where your farm is located with respect to Randfontein. This factor can however have a large effect on whether or not prices realised will make a particular crop profitable in your area.

If, for instance, you have a choice to make between white or yellow maize, a large maize milling company, if situated near your farm, will probably offer you the best spot price offer at harvesting. The miller can be contacted to find out how their pricing policy works.

The cost of planting the crop (gross margin analysis/enterprise budget)

It is essential to do a gross margin analysis for each grain crop that can be grown on your farm. A gross margin is the difference between the total net income for each crop less all the direct costs used to produce the crop worked per hectare and per ton of crop produced. The crop income from each crop can be compared on an equal basis per hectare or per ton to see which is the most profitable. The potential yield for any of the crops will be influenced on soil depth, fertility, soil moisture, rainfall, climate, the existing crop rotation and efficiency of the crop cultivation methods used.

Table 1 shows an example of a gross margin analysis – remember that it will differ from place to place and even from land to land. You need to find out exactly what inputs you are going to use, the amount per hectare and then the price of each item – then you will be able to calculate the cost of your crop.

Please approach Grain SA for advice and information on Gross margin planning should you feel uncomfortable with how exactly to do it for your farm.

The potential grain yield/ha in tons times the net producer price for each crop will indicate which is the most profitable crop to grow. Coupled with the need to spread risk, the equipment available and the crop rotations planned, a rational decision can be made as to which crops to plant.

Remember that each crop has a certain optimal time for planting and you must ensure that your lands are prepared in good time to be able to plant at the right time. If you plant late, you will not get the desired yield and much of your work will have been in vain. Make your plans now and make sure that you start working the lands as soon as you can.

Table 1: Gross margin analysis

Gross margin analysis		Cropping – maize					
Enterprise		Maize					
Area for maize		4,90	Hectares				
A	Total income for enterprise					Income	Total for
	Poor	Average	Good			Hectare	Enterprise
Tons/hectare	3,60	4,50	5,40				
Price per ton	1 400	1 750	2 100				
Income per hectare	5 040	7 875	11 340				
Total yield from enterprises (tons)	17,64	22,05	26,46				
Actual income for enterprise per year	24 696	38 587,50	55 566			7 875	38 587,50
B	Less direct costs						
		Description	Per	Total/		Cost per	Total for
Item	Product	Unit	Hectare	Enterprise	Price/U	Per hectare	Enterprise
Seed – 60 000 per bag	GM	60 000	25 000	122 500	0,03	650	3 185
Fertiliser	4:2:1(32)	Kg	200	980	4,50	900	4 410
Top dressing	LAN	Kg	100	490	3,50	350	1 715
Lime	Calcitic/Dol	Kg/ha	1,00	4,90			
Chemicals		Kg	0,06	0,29	1 266,67	76	372,40
Chemicals – pre-emergence weed control						350	1 715
Chemicals – post emergence weed control						350	1 715
Chemicals – cut worm	Insects					10	49
Chemicals – stalk borer	Insects					15	73,50
Diesel		l	90	441	8,50	765	3 748,50
Input insurance		0,08	598,50			465	2 278,50
Labour – casual							
Harvesting		Hectares	300	1 470	1,00	300	1 470
Marketing		Tons			50	225	1 102,50
Transport		Km	25	122,50	3	337,50	1 653,75
Repairs and maintenance						300	1 470
Interest							
					TOTAL	5 093,50	24 958,15
C	Gross margins (the amount of money you will have left after selling the maize from 4,9 hectares)						13 629,35

JANE MCPHERSON, PROGRAMME MANAGER OF THE GRAIN SA PRODUCER DEVELOPMENT PROGRAMME

To rip or not to rip...

TILLAGE CAN EITHER CREATE OR HELP TO ALLEVIATE SOIL COMPACTION. BY THEIR NATURE, TILLAGE OPERATIONS BREAK UP SOIL INTO SMALLER PARTICLES. EXCESSIVE TILLAGE MAY PULVERISE SOIL AGGREGATES, DESTROYING THE STRUCTURE THAT PROVIDES DESIRABLE PORE SPACE.

Purpose of the ripper

Some tillage equipment, such as moldboard ploughs, may aerate the soil and increase percolation at the surface while creating a compacted layer just below tillage depth. Such a layer is called a “plowpan” or “hard pan.” Discs can also produce a hard pan just below tillage depth while over tilling the soil near the surface, especially where multiple passes are made the same year. To alleviate compaction, ripping with heavy duty shanks to depths of 30 - 60 cm or even deeper and usually spaced about 1 m apart has become common practice, particularly in sandy soils.

Rippers or sub-soilers break up compacted soil below the depth reached by conventional cultivation, to improve drainage and aeration. The design of the ripper helps lift and shatter the subsoil so that any compacted layer is broken up. Soil should be reasonably dry when it is ripped. Ripping wet soil does not shatter the subsoil and can smear and seal the soil beside the ripper tine. Smeared surfaces prevent air, water and roots moving through the soil.

Plough pans are caused by the smearing action of disc ploughs continually operating at the same depth over a long period. It is difficult for plant roots, water or air to move through this pan, so plant performance is affected. The use of heavy machinery on wet soil also compacts soil over time, creating a hard layer similar to a plough pan.

Advantages of the furrow ripper

- Improved infiltration of rain water;
- Improved aeration;
- No mixing of top soil and subsoil;
- Limited loss of soil moisture as the soil is not turned; and
- Improved root development.

Disadvantages of the furrow ripper

- It is a slow and costly tillage operation; and
- High kW requirements.

**WILLIE KOTZÉ, TRAINING AND DEVELOPMENT MANAGER
OF THE GRAIN SA FARMER DEVELOPMENT PROGRAMME**



Winter cereals

Weed control factors to keep in mind for the 2011 season

THE CURRENT WINTER WHEAT PRODUCTION SEASON IS UNUSUAL IN THAT RAINFALL RECEIVED PRIOR TO PLANTING FOR THE PERIOD JULY 2010 TO MAY 2011 RANGED FROM 500 MM TO 2 000 MM FROM A NORTH SOUTH LINE FROM THE WESTERN FREE STATE TO THE EAST COAST.

Many lands planned to be planted to wheat probably experienced well in excess of 1,2 metres of rain. It is thus likely that many lands planted to wheat had a totally saturated soil profile.

A cold winter, coupled with snow falls in many areas, will influence the rate of growth and development of the wheat plants. Late planting will also result in stands of wheat that are at a later development stage than in a more normal season. Seed planted during late May and June, in some areas, has taken more than four weeks to emerge.

Moisture should not be a limiting factor until very late in the season. Some areas have also received rain and snow in July. Given an optimum emergence percentage of the seed planted and correct fertilisation that compensated for nitrogen that would have leached from the soil profile due to the high rains, the possibility for yields of two to three tons is high.

The soil conditions that have given a good start to the wheat crop will also provide an ideal environment for the germination and development of a large number and variety of weeds.

In the light of a potentially high value crop that will be harvested it will be very worthwhile to monitor any weed development in the crop from an early stage.

The cold winter will result in reduced weed competition during July into August. The ideal conditions will result in weed competition becoming a factor when the country warms up towards the end of August.

Integrated weed management (IWM)

The effectiveness for the control of weeds in a particular crop, in this instance winter wheat, in a modern production system should use an interdependent mix of cultural practices, crop rotations and biological and herbicidal weed control practices.

Good crop farming practice and planning should include the growing of different summer and winter crops, together with the mix of broad leafed crops such as sunflowers and soyabeans and grass type crops such as wheat, oats, maize and sorghum. This diversified system ensures that weeds are exposed to different cultivation practices as well as a rotation of the different available herbicide groups.

Banding of fertiliser in either winter or summer crops assists the plant to get away from any weeds that could germinate at crop planting or as in the current winter season with planted lands having a very moist surface.

Scouting for weeds

A key to a good weed management program on any land is the correct identification of the weed species present.

Prudent producers will drive around and walk in their lands constantly to assess the growth and development, especially the numbers of tillers developing on each plant, so as to establish the scope and financial viability of the crop at an early stage. Replanting of compacted and land with non viable plant populations should have been considered. Any weed growth can also be monitored while carrying on the usual land inspections.

A good scouting program will assist in identifying the problem weeds so that the correct an effective control and spraying program can be recommended. It is always advisable to take a suitably qualified and experienced chemical weed control practioner with from the start.



Weed control factors to keep in mind for the 2011 season

Useful tools for weed scouting

When lands are being examined and assessed it is advisable to take farm maps with lands and land area shown, a small trowel, pen knife, plastic bags with labels for collecting unknown weeds, a 1 m steel square, pocket calculator, pencils markers and a GPS unit if available.

GPS units can be useful for marking particular weed patches so that the effectiveness of the spray programme can be monitored by revisiting those patches from time to time after spraying.

It is also advisable to have a basic weed reference guide with photos of weeds at various stages shown so that accurate identifications can be made. This is critical so that the correct choice of chemicals and mixes in the control programme can be made.

Scouting in practice

To do an efficient and useful scouting job follow these steps.

1. Walk a zig-zag through the land stopping at least five times at widely separated points along the way. The pattern should take you across the entire land and allow you to start where you parked your bakkie or other vehicle. Pay attention to weeds in low, wet or saline spots in the land.
2. While walking identify all the weeds species present and record the growth stage of the wheat as well as the weeds. Note whether or not the crop is competing against the weeds already present.
3. Draw a map of any weeds that appear to be concentrated in any specific areas. If you can use your GPS to measure the area. Large modern contractor spray rigs are rigged with GPS units and sometimes operate through the night. In this instance these areas and GPS positions can be pointed out to the contractor before he starts on a particular land. Accurate mapping will enable a more accurate assessment to be made as to the quantity of chemicals and the cost thereof. The impact of the chemicals to be used on future crop type rotations can also be considered.
4. At each of the five stops in the land determine the number of weeds present. If the weed plants have not emerged yet one can carefully scrap away the top

centimetre of the soil surface to see whether any plants have germinated and not emerged. This simple observation can give the producer a very good idea of the potential weed problem that will loom in future. Randomly toss a bright coloured ball into an area and place the 1 m square over the area with the ball centred. A total of 25 counts or more if the land is over 50 hectares will give you an excellent picture of the weed problems in a particular land. This process will also force you to learn the correct identifications of the weeds on your farm.

5. Total the counts for each weed and divide by five. This will give you the average number of weeds per one square metre. The threshold numbers for weeds per square metre are then compared with the relevant charts so that a decision can be made whether it is economically viable to spray or not.

It must be borne in mind that in South Africa it makes sense to spray even at low concentrations of weeds as the early rains in October and rains in November and December together with the summer heat can really promote excellent weed growth. This leads to problems with harvesting efficiently and the possibility of badly contaminating the harvested wheat seed sample. Degrading will result in a lower grade and lower price per ton realised at the silo.

Recommendations

Some recommended herbicides and costs for the possible weeds to be found are discussed below. It is highly recommended that a proper weed reference book for South Africa be purchased so that weeds are accurately identified. Similar local names for dissimilar weeds species can cause confusion. It is always best to refer to weeds by their Latin nomenclature so that the right herbicide can be used in the spray programme.

The most likely result of the above tests will probably reveal that the weed problem is mainly broadleaves. In some areas prostrate knotweed, (*Voelduisendkoop*, *lietjiesgras*, *koperdraadgras* – *polygonum aviculare*), wild climbing knotweed (buck wheat, *wildebokwiet* – *bilderdykia convolvulus*) and in fact all other *polygonum* species are a problem and also need to be controlled. Some recommended mixes with an estimated cost per hectare are shown on page seven.



Just broadleaves

- A tank mix of Chlorsulfuron (15 grams/ha) plus 2,4 D (100 ml) hectare and a suitable adjuvant (sticker and pH balancer).
- Chemical cost per hectare will be about R45,00.
- Contractors would charge about R80 per hectare plus diesel (5l/ha).

Broadleaves and polygonum species

- A tank mix of Chlorsulfuron (15 grams/ha) plus mesosulfuron Methyl (10 grams per hectare) plus 2,4 D (100 ml) hectare and a suitable adjuvant (sticker and pH balancer).
- Chemical cost per hectare will be about R80 per hectare.
- Contractors would charge about R80 per hectare plus diesel (5l/ha).

At a potential yield of two tons with a futures spot price of R2 800/ton and a potential income of R5 600/ha it can be seen that it makes sound economic sense to spend about R175/ha just for broadleaves or R210/ha for broadleaves, convolvulus and polygonum species.

It is also strongly recommended that a weed control agent or practioner be consulted before purchasing any herbicides and that their advice is followed when the lands are sprayed. This is a complex industry and all practioners are required to write examinations from time to time and so are up to date with the most effective tank mixes and the legislation regarding the use of agricultural chemicals.

ARTICLE SUBMITTED BY A FORMER PRODUCER



Stones that fall from the sky

WHEAT IS A CROP THAT IS VERY SUSCEPTIBLE TO HAIL DAMAGE – RIGHT UP UNTIL THE TIME OF HARVEST. IT IS POSSIBLE FOR A HAIL STORM TO COMPLETELY DESTROY A WHEAT CROP AND LEAVE NOTHING TO HARVEST.

The season for the development of the ears and the ripening of the wheat in the Eastern Free State occurs at the same time as the season where rain and hail storms can be expected in many areas. It is of the utmost importance that producers insure their wheat crop against hail damage.

The probability for hail differs from area to area and so does the premium for the hail insurance – the companies that insure the wheat have long term records and therefore increase the premiums for the areas where the likelihood of hail is higher. As a wheat producer you should make contact with the companies that offer hail insurance and get advice as to when to take out the policy, as well as the yield and value for which the crop should be insured. If you are uncertain about this, please contact your nearest agri-business (in most cases it will be OVK with their head office in Ladybrand, VKB with their head office in Reitz and Senwes with their head office in Klerksdorp) – you will get good advice that may save your business.

JANE MCPHERSON, PROGRAMME MANAGER OF THE
GRAIN SA FARMER DEVELOPMENT PROGRAMME



Planning to plant wheat profitably

A PRODUCER IS CLOSELY CONNECTED TO THE SOIL AND NATURAL ELEMENTS AND HE HAS TO USE HIS LAND IN ORDER TO GENERATE AN INCOME. UNFORTUNATELY, PLANS HAVE TO BE MADE WELL IN ADVANCE AND A PRODUCER CANNOT JUST CHANGE HIS MIND ON THE SPUR OF THE MOMENT AND PLANT ANOTHER CROP — THOROUGH PLANNING HAS TO BE DONE.

In order to survive financially as a producer in the present, producers will have to be more objective in decision making; never can it be an emotional decision where the outcome can result in great financial losses.

The market

The South African wheat price is determined in the Northern hemisphere as we are a very small player on the international field. Our currency is strong and imports are very competitive – it is possible to land imported wheat here at a lower price than our producers can afford to produce it, (import parity).

The government poses a levy on imported wheat, but this levy is far too low to discourage the importation of wheat. Remember that the millers of wheat are interested in having a profitable business and they are not really concerned about the survival of our local producers – they are business men and will buy the cheapest wheat they can access in the market.

The profit margins on wheat production are very small relative to potential risk – the inputs are high and the value of the cereal low. It is generally ac-

cepted that the quality of the imported grains are poorer than our local product, however, the fact that the wheat is available in the market means that we continue to import wheat.

This is the first year in the history of South Africa that we will be importing more wheat than is being produced locally. This is a very sad state of affairs as we can produce wheat in South Africa but we cannot compete on the international market. We continually ask ourselves, if there should be a wheat failure in the exporting countries, what will happen to South Africa? Does no one in government care about our producers? Does no one in government realise as a country we must be self-sufficient in food? As producers, we know that what we are doing is crucial to the economic survival of our people and our country and so we have to continue to fight for import tariffs on wheat.

As far as wheat production in the Free State is concerned, we know of only nine developing producers who have managed to access production loans to plant wheat. This is so disappointing when two years ago there were 22 producers who had a very successful wheat crop. Our producers know how to plant wheat, they want to plant wheat, but they cannot afford to produce wheat unless the government imposes higher tariffs on imported wheat.

JAN DE VILLIERS, A RETIRED PRODUCER



*Government has failed to intervene in agri markets.
Our goal should be to make markets work for us.
We cannot make government work – Professor Karaan.*

This special feature is made possible by the contribution of the Winter Cereals Trust.

Using agricultural contractors

– the do's and don'ts

WE HAVE JUST BEEN VISITING PRODUCERS IN THE EASTERN CAPE AND AGAIN THE WHOLE QUESTION OF CONTRACTORS HAS COME INTO OUR VIEW AGAIN.

Why use contractors?

It is so painful to realise that millions of rand have been “wasted” through all these schemes that were supposed to be helping the developing producers – the massive food scheme and more recently, the initiatives of AsgiSA. All these schemes start off with good intentions and yet they all fail. Why do they fail? They fail for a number of reasons – one reason is that too high a price is paid for the contracting services, too much is paid for the production inputs, the work is usually done too late and the lasting failure is that the producers are not empowered – they are not taught to farm. After the scheme has failed, the producers are left in the same (or even worse) situation than they were in before the ‘scheme’.

If we are going to transform the agricultural sector and have food security in South Africa then we have to develop independent, sustainable, profitable producers – not allow people to make huge profits from “schemes” while the producers stay poor.

There are many producers in South Africa who make use of contractors on their farms. These contractors may be used for primary tillage, secondary tillage (seed bed preparation), planting, spraying and or harvesting. Many producers do not farm on a big enough scale to be able to justify owning their own equipment and it makes good economic sense to make use of contractors who have equipment – it also opens up op-

portunities for those who have extra equipment to be able to generate an income from the contract work.

In theory, this is a very sensible thing to do. However, in practice, things can go wrong. Generally, the purpose of farming is to produce food and fibre so as to generate an income that is greater than the production costs – profit is the incentive.

How do contractors earn their money?

Contractors are usually paid per hectare and they do not share in the income of the crop. It is therefore to their advantage to work a large number of hectares as each hectare means more income for them. The danger exists therefore that the contractor will work as fast as possible so as to be able to complete as many hectares in a day. This may mean that the quality of the work is compromised. It is easier to do a shallow working (for example plough or disc) – the operation goes faster, less diesel is used and there is less wear and tear on the machinery.

Every operation of tillage that the producer is doing is for a purpose. The producer wants each operation to be done to the correct depth and he/she is not really concerned about how long it takes for the contractor to do the work – the quality of the work is more important (this however is not the case with harvesting when the producer is usually anxious to get the crop off the land as quickly as possible). There is therefore an inherent conflict of interest – the contractor wants to finish the job quickly so as to get paid and the producer wants the job done carefully and properly.



Using agricultural contractors – the do's and don'ts

Is timing important?

Another very important factor in the production cycle of crops is the timing of each operation. The tillage of the soil is ultimately aimed at planting the crop into moist soil. To get the optimal yields, there is an optimal planting time. This is determined by the first spring rains, the expected summer rains, the growing length of the crop, the heat units available during the summer months and the expected dates for the first frost.

Because the contractor earns an income according to the number of hectares he can work in a season, the contractor tends to commit himself to more hectares than he can manage in good time, allowing for periods of rain when no work can be done. This could result in the work being done too late – or after the optimal time as the contractor is working for another producer while the next producer is already waiting. There are many cases where a producer plants his crop well after the latest planting date because the contractor was not on time.


What should the producer look out for?

- Make sure that the rates you are to pay the contractor are within the normal industry limits for your area. (If you are uncertain, ask other commercial producers in your area what the going rate should be).
- Enter into a contract with the contractor so that you are assured of his services.
- Agree to standards of working – decide before hand how deep you plan to till the soil and monitor the quality of the work as it is being done. It is no good to say that the work was done poorly after the contractor has left – be there when he is doing the work and ensure that it is done to the agreed upon standard.
- Agree to cut off dates after which you know that it would be useless to do the work – you can rather not plant than plant too late and get no harvest at all because you planted too late.

- Find out how many other producers are to be assisted by the same contractor so that you know that he is not overcommitted.

An example of the current rates for contracting is as follows:

Operation	Free State/ North West	Eastern Cape	KZN
	+ diesel	+ diesel	+ diesel
Ploughing	R250	R750	R550
Discing	R195	R550	R450
Planting	R165	R480	R440
Total	R610	R1 780	R1 440
Spraying	R80		
Harvesting	R250		

As Grain SA we believe that you, as a producer should strive to have your own equipment (if you are farming as an individual) or share equipment with a small group of producers if you are on communal land. Looking at the costs above, unless you are in the Free State where the costs are manageable, you will not be able to farm profitably if you continue to make use of contractors. It would be cheaper to buy your maize than to pay those prices! 

JANE MCPHERSON, PROGRAMME MANAGER OF THE GRAIN SA PRODUCER DEVELOPMENT PROGRAMME

Improve your management with control

TO BE ABLE TO IMPROVE THE MANAGEMENT OF A BUSINESS TO MAINTAIN SUSTAINABLE PROFITS, IT IS IMPORTANT THAT THE MANAGEMENT TASK OF CONTROL RECEIVE THE FULL ATTENTION IT NEEDS.

Control is the fourth management task and is the process whereby a manager evaluates the extent to which actual activities correlate to the planned activities and take rectifying steps, if necessary. To be able to control the producer must supervise the activities, or have them supervised.

With reference to once off activities it could be seen as the last task. However, with a farming business where most activities are repeated, it is the end but also the beginning of a new phase of planning, organising, implementing and then control again. Some actions will be repeated yearly such as the production of annual crops, whilst other actions will be repeated within a year such as the production of vegetables, production of milk, production of broilers and so forth.

Ideally, the control task involves the execution of the following five steps:

Creation of standards

Standards are necessary for exercising successful control and should have already been established as part of the original plan/s. If there are no realistic standards against which actual performance can be measured, it is not possible to exercise successful control. Thus, in practice it means control already commences when planning an action. Planning to plant 100 hectares of sunflower or ten hectares of cabbage already sets a standard – 100 hectares of sunflower, ten hectares of cabbage to be planted.

Measuring actual performance

It is as important to measure and document/record actual events. The events must be measured and recorded in a format that will make it easy for the producer to use. In farming this process is known as record keeping. How many hectares were planted?

Comparing actual performance with planned standards

The actual performance must then be compared with planned standards. It is doubtful whether one will ever encounter the situation in a farming business where actual events will correspond exactly with the planned situations. As a matter of fact, one can always expect deviations from set standards. For example, you have planned to plant 100 hectares of sunflower and only 90 hectares were actually planted. That is a deviation.

Analysing of deviations

If and when there are deviations, the deviations must be analysed and explained. The reason for the deviation is of the utmost importance to take corrective steps and to improve your management. Why was only 90 hectares sunflower planted?

Corrective steps

When it has been established that there are deviations between the plans (standards) and the actual result and the reasons have been established, corrective steps must be taken. Corrective steps amount to one or more of the following:

- Changing the standard because it was too high or too low;
- An increase in performance to achieve the set standard; or
- No immediate action because the deviation was due to a once-off and/or uncontrollable factor, such as the occurrence of hail or flooding.

Depending on the task, control may be executed before the actual imple-

menting of what was planned, during the implementation and after the implementing of the plans.

Control before the actual implementation will mainly focus on such aspects as the purchasing of the correct type and quantity of inputs in time. In a farming business, the control during the implementation phase is of the utmost importance and is mainly done by close supervision. If seed were not planted at the correct density, 30 000 seeds per hectare and it is only discovered that 15 000 seeds were planted after the crop has emerged, it is very difficult to rectify without additional costs and time. The last control in terms of the physical control will be after the final implementation concentrating on the end results.

The final step

One could add a sixth and final step pertaining to control as a management task which will be that of financial control which will be discussed in a future article when financial management will be discussed.

Thus far it was emphasised in the series of articles that management need to be improved every year in order to maintain making sustainable profits. Proper control could play a very important role in improving your management of your business. In a follow-up article how to control will be illustrated using a practical example.

INFORMATION COMPILED FROM THE FARM MANAGEMENT
FOR PROFITS MANUAL BY MARIUS GREYLING

Ploughing

– what to keep in mind

THE PLOUGH IS A TOOL USED IN FARMING FOR INITIAL CULTIVATION OF THE SOIL IN PREPARATION FOR SOWING SEED OR PLANTING. IT HAS BEEN A BASIC INSTRUMENT FOR MOST OF RECORDED HISTORY AND REPRESENTS ONE OF THE MAJOR ADVANCES IN AGRICULTURE

Purpose of the plough

The primary purpose of ploughing is to turn over the upper layer of the soil, bringing fresh nutrients to the surface, while burying weeds and the remains of previous crops, allowing them to break down. It also aerates the soil and allows it to hold moisture better.

In Europe and Asia where ploughs were first used, one of the major purposes was to turn the soil so as to expose it to the air for drying of the soil – ploughing dries the soil. In South Africa, where too little moisture is one of our production limiting factors, the plough should be used with extreme caution.

Advantages of the furrow plough

The action of ploughing incorporates crop residues, lime and commercial fertilisers along with some oxygen.



PULA IMVULA

*This publication is made possible by
the contribution of the Maize Trust.*

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DESIGN, LAYOUT AND PRINTING

Infoworks
► (018) 468-2716 ◀
www.infoworks.biz



**PULA IMVULA IS AVAILABLE IN THE
FOLLOWING LANGUAGES:**

English,

Afrikaans, Tswana, Sesotho,
Sesotho sa Leboa, Zulu and Xhosa.

Ploughing – what to keep in mind

Disadvantages of the furrow plough

Ploughing has become increasingly recognised as a highly destructive farming practice with the possibility of rapidly depleting soil resources. In the short term, however, it can be successful. A land that is ploughed once will have the benefit of burying weed seeds and insect larvae too deeply to survive.

The plough is largely responsible for the formation of a plough pan/hard pan which prevents water and root penetration into the soil to level below the pan and thus limiting crop yields. This later also becomes impenetrable to water which can lead to flooding and the drowning of plants.

Deep ploughing (more than 15 - 20 cm) rapidly depletes the organic matter content of the soil and promotes erosion – these two problems go hand in hand. As soil is brought to the surface, the root structure of the previous harvest is broken and the natural adhesion of soil particles is also lost – this soil is perhaps good for seed germination, but the soil is highly susceptible to erosion. This increased rate of erosion will outpace the rate of soil genesis and the replacement rate for organics in the soil, thus depleting the soil more rapidly than normal.

Deep ploughing (more than 15 - 20 cm) leads to increased soil compaction and loss of pore space within the soil. Soil is a bit like a bucket full of balls filled with sand. Each ball represents a cohesive particle of soil and when stacked, the balls leave a great deal of air space, required for healthy root growth and proper drainage. Ploughing so disturbs the soil that it breaks these balls and releases their contents. When this happens, the much smaller particles that are within the larger particles are released and the pore space diminishes, leading to hard compacted soil that floods easily and restricts root growth.

Many producers in South Africa still make use of the plough – it is time to give this matter some serious thought. Perhaps it is time to change this practice!

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