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Managing grazing and crop residues through the winter



In drought years like this it feels as though we are constantly looking for food for our livestock. Be it veldt or crop residues or silage. It feels as though we are always on the back foot trying to keep the animals bellies full.

In situations like this we are faced with a few options. Keep in mind that when managing your livestock herd you should always be considering cost effectiveness and profitability. As farmers we need to weigh up the cost of feeding an animal through a drought winter compared to selling it, albeit at a lower price. Feeding the animals on bought feed may end up costing as much as the animal is actually worth. Veldt quality and grazing is another huge concern in years like this. Often farmers are forced to use every last blade of grass which is a risky practice as it will affect the rejuvenation potential in the spring.

Let us take a look at these issues a little closer.

PROFIT, should always be at the forefront of a business decision. Obviously in drought years farmers should expect to take a few knocks here and there, but the goal should be to mitigate this as much as possible so that in the end, the hole is not so big that you can't climb out of it. Therefore your first step should be to assess your situation. What feed do you have on hand? Is it roughage or does it have nutritional value? How long will it last into the winter? What supplements would complement the feed? How will this drought situation impact your conception, milk production and weaning percentage?

Grain SA magazine for
developing farmers

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NKGONO JANE SAYS...

Being able to produce food from the land is a very old occupation and one that must always be highly regarded. The whole world depends on farmers for food. This year we have been made aware again of the high risks involved in crop farming – large areas of the Free State and North West experienced a devastating drought and they will suffer great financial losses (as they did in 2012). Unfortunately farmers were not able to take out multi-peril insurance in these areas and the reason for this is that the insurance companies view these areas to be a bad risk for them – no insurance company wants to lose money and if they will not insure you then you should know that the risk is very high.

This brings me to the point of borrowing money. If you plant a crop using your own money and you do not get a harvest, you have lost your own money. However, if you have borrowed money and not harvested then you have nothing AND you have debt which will be interest-bearing. Somehow in our modern society, we are all eager to borrow money from other people and not invest our own money. We have seen this with many farmers who want to take all the profit from their crops to use for themselves and then want to borrow the full inputs costs. If you are not prepared to invest your own money in a business then we can assume that you are worried about the risks involved. This should make you even more careful not to borrow money from someone else for the same purpose.

Many farmers are not keen to start small – they want to borrow money to plant all the land. If it is a good season then planting a large area can be very rewarding. However, if it is a bad season then you will have lost a lot of money over a large area – this could even mean the end of your farming operations. We suggest to farmers that you should start on a smaller area so as to reduce the risk of loss while you are learning to be a commercial farmer.

Another way of reducing your risk is to have a livestock component in your business. This does not mean that we are encouraging you to keep cattle, sheep, pigs, poultry, dairy, and orchard etc – the more enterprises you have the better your management has to be. Many crop farmers keep beef cattle which graze on the veld during the summer and on the crop residue during the winter months. Grain yields can be very high in a good year and it will be like “hitting the jackpot”. A bad year however can mean financial ruin. With livestock as an additional enterprise, you will not ever “hit the jackpot”, but you will seldom have a complete disaster with the stock. The stock does add a stabilising factor to the cropping and in poor years, at least your livestock will have something to eat (remember that when the crops are poor then the veld usually has not grown well due to the poor rainfall). If you have crop residue then at least you will be able to carry the livestock through the winter months.

As farmers, we are optimists and we need to lift up our heads after a bad season and plant again. The man that will never harvest is the man who has not planted. Let us make plans, use good modern production practices and plan to plant again in the spring – we have a duty to feed the world and we will continue to do our best! Good luck and I hope that we get good rains during the winter that will fill our soil profile and enable us to hope for a good crop next year. 🌧️

Managing grazing and crop residues through the winter



Maize crop residues.

Always keep in mind that you want to have productive animals now and into the future. Remember that some of your actions today in the drought conditions will affect your veld and grazing potential in years ahead, therefore having an impact on your future productivity. Be cautious not to overgraze the veld, the more soil that is exposed the weaker your root structures become and therefore your veld becomes a poorer quality which will take much longer to rejuvenate. You always want to have a good basal cover of mulch and vegetation.

Once you know exactly what you have and exactly what your animals need then you can take action from there with a clear vision.

Remember to take into account the crop residues that you will have available after the harvest. It may be, as in many cases this year, that you will have very little or no crop at all. This is when you need to calculate exactly how you can best utilise the crop through your animals. If there are some kernels on the cob, then it may be a good option to cut your maize crop into silage. Silage is an excellent feed source through the winter and you can keep the animals in good condition by just feeding a little silage a day together with sufficient roughage and a protein supplement.

If the maize plant has no kernels on it, then it may be wiser to cut the maize and feed it as green feed. Or alternatively you can herd the cattle into the maize lands for a few hours a day and let them graze the maize down.

The benefit of having a maize crop in the ground, even if it is drought stricken, is that it gives you feeding

options in the winter. Maize is an excellent energy source but remember that energy is not enough; your animal will also be in need of protein supplementation. This can be achieved in a few ways. You can buy protein licks from your local co operative which are made up of many important nutrients and minerals; the protein is supplied by urea in the lick. Many farmers also feed chicken litter which is purchased in bulk from chicken farms or distributors. This is a cost effective way to supply your animals with protein. There are risks however with feeding chicken litter and urea. Make sure that it is clean, sifted and preferably sterilised by the seller and be sure to vaccinate your animals for botulism before feeding the litter as there have been the occasional cases of botulism in cattle. When feeding urea based lick be sure to keep the lick dry and also do not feed it in rainy weather. When urea gets mixed with water it is extremely poisonous to animals.

As farmers we are morally obligated to keep our animals in good health and good condition. That is why before the dry season starts we should make calculated decisions about how we are going to do this especially in drought years such as the one we are currently experiencing. Remember that the management actions that we make today will affect our business circumstances in the future. 🌧️

Article submitted by Gavin Mathews, Bachelor in Environmental Management. For more information, send an email to gavmat@gmail.com.



IMPORTANT TAX FACTS to keep in mind

This basic tax calendar has been developed to provide a guide to taxpayers about the key deadlines for the main segments of taxpayers.

Individuals

- **Tax season** – tax season for individuals normally runs from July to November (for non-provisional taxpayers), with provisional taxpayers having until end January to file via eFiling.
- **Provisional tax** – the filing and payment by individuals of provisional tax (IRP6's) is 31 August (1st period), 28 February (2nd period) and 31 September (3rd period).

Employers (PAYE)

All businesses that are required to register for PAYE, must follow the schedule below:

- **Monthly** – the EMP201 must be submitted monthly – by the 7th of the following month or the Friday* before that day if the 7th falls on a weekend or public holiday.
- **Interim** (for period 1 March to 31 August) – the Interim Employers Tax Season for EMP501 reconciliations runs from 1 September to 31 October.
- **Annual** (for period 1 March to 28 February) – the Annual Employers Tax Season runs from 1 April to 31 May.

Companies

- **Tax season** – companies, including CC's, co-operatives and body corporates, are required to submit a Return of Income: Companies and Close Corporations (IT14) within 12 months from the date on which their financial year ends.
- **Provisional tax** – the filing and payment by companies of provisional tax (IRP6's) is 6 months after year end (1st period), at financial year end (2nd period) and six months after financial year end (3rd period).

VAT

- **Manual** – submission of the VAT201 and payment must be done by the 25th of the month. It should be noted that each vendor may be on a different VAT cycle.
- **Electronic (eFiling)** – submission and payment of the VAT201 must be done by the last business day of the month.

Small businesses

Small businesses which fall into one of the categories above (CC, co-operatives) must follow the schedule outlined above.

Turnover tax

Small businesses which are registered for turnover tax must follow the schedule below:

- Turnover tax will be levied annually on a year of assessment that runs from the beginning of March of the one year to the end of February of the following year. It will include two six-monthly interim (provisional) payments.

Farming enterprises

What are the qualifying criteria for this category?

Any person conducting a farming enterprise will qualify to be registered under category D, (i.e. the tax period, having periods of six months ending on the last day of February and August) if the following criteria are met:

- The enterprise must consist solely of farming activities (e.g. agricultural and pastoral activities);
- The turnover (that is the value of taxable supplies) from all farming activities has not exceeded or is not likely to exceed R1,5 million in a 12 month period;
- Category C (i.e. the tax period having periods of one month ending on the last day of each of the 12 calendar months) is not applicable; and
- Written application is made to the Commissioner to be placed under Category D.

What if the qualifying criteria are not met?

Any person conducting farming activities, where the above criteria are not met, will therefore not qualify to register under Category D. In this case, the Commissioner will register that person under Category A, B, C, E or F.

Which products can be bought at zero rate?

A person carrying on a farming enterprise is allowed to purchase the products, as set out below, that are to be used or consumed in the farming enterprise, at the zero rate:

- Animal feed;
- Animal remedy;
- Fertiliser;
- Pesticide; and
- Plants and seeds used for cultivation.

What are the requirements for buying at zero rate?

The following requirements must be met in order to purchase the above products at the zero rate:

- The registration certificate must be presented by the person carrying on the farming enterprise to the vendor supplying the products.
 - The registration certificate must confirm that the Commissioner is satisfied that the person's main business is a farming enterprise and has authorised that the products listed above may be supplied at the zero rate.
 - The VAT registration number of the person carrying on the farming activity must appear on the tax invoice issued by the vendor supplying the products.
- For any questions or additional information you can phone the SARS Contact Centre at 0800 00 7277. 📞

Information adapted from the South African Revenue Services (SARS) eFiling website. For more information visit the website at <http://www.sarsefiling.co.za>.

The potential impact of aflatoxins in maize



Aflatoxins are naturally occurring poisonous substances produced by the fungi *Aspergillus flavus* and *A. parasiticus* which infect and contaminate maize and groundnut grains.

Aflatoxins are potentially problematic in seasons favourable for plant infection or contamination of stored grains. In unfavourable seasons levels of aflatoxins may be negligible with minor potential mycotoxicotic effects on humans and animals that consume the grain.

A previous study carried out during the 2005/2006 and 2006/2007 seasons on aflatoxin contamination of maize and groundnut samples produced by subsistence farmers in Limpopo, Mpumalanga, KwaZulu-Natal and the Eastern Cape provinces, indicated that aflatoxin contamination is sporadic, but it can reach levels as high as 49 parts per billion (ppb) in a single maize sample and be absent in other samples collected from the same area, e.g. Jozini in northern KwaZulu-Natal.

The maximum allowable limit for aflatoxins in human food in South Africa is 10 ppb (ten parts per billion is the same as one pinch of

salt in 10 tons of potato chips or one second in 22 years).

Maize is a major staple food in South Africa with the average daily intake being 300 g or more per capita. Exposure to human food or animal feed contaminated with aflatoxins through ingestion results in reduced performance, depressed immunity and sickness or death in humans and animals.

High aflatoxin levels can be lethal in livestock, particularly young pigs, pregnant sows, calves and young poultry. Contamination of crops with aflatoxins is often most severe in rural areas where subsistence farmers are unaware of their existence, and follow agricultural practices that might contribute to the production of aflatoxins. The quality of maize consumed, thus determines the quality of human and animal life.

Contamination of maize with *Aspergillus* fungi and aflatoxin

Aflatoxins are produced during both pre-harvest and post-harvest stages of grain production by *Aspergillus* species which survive on maize debris and infect maize ears through the

silk. The fungus grows from the ear tip (silk) towards the base.

Hot and humid conditions favour the growth of *Aspergillus* species. Drought stress, temperatures between 26°C - 30°C as well as insect and physical grain damage are factors that contribute to aflatoxin production in the field. Aflatoxin production may also increase during storage where relative humidity, grain moisture and temperature are favourable for aflatoxin contamination.

Subsistence farming, aflatoxin contamination and maize production

Subsistence farmers often lack the necessary resources to ensure production of quality grain from field plantings to consumption.

With restricted access to resistant hybrid seed, fertilisers and pesticides, the yield and product quality of subsistence farmers is often severely affected by poor soil fertility, fungal infections and pest damage.

Most grain is harvested and stored on farm or in silos for medium- to long-term storage, generally under conditions with poor aeration, poor moisture and temperature control, which

are factors known to influence aflatoxin production during storage.

Prevention strategies for the reduction of aflatoxin contamination

- Control of stalk borers using chemicals such as Bulldock® (beta-cyfluthrin).
- Planting Bt maize hybrids that reduce stalk borer levels which in turn reduce aflatoxin contamination by indirectly reducing the dissemination of *Aspergillus* spores.
- Early harvesting and rapid drying of maize to moisture levels below 12% reduces aflatoxin production.
- Avoid mixing damp and dry grain during storage because an isolated pocket of damp grain supports fungal growth which can spread to the surrounding dry grain.
- Optimum conditions for storage are temperatures below 12°C, relative humidity below 85%, and grain moisture content below 12%.
- Storage facilities must be regularly monitored to ensure early detection and control of insect and fungal infestations. Old grain residue must not be mixed with new grain and storage areas must be sanitised before new grain is stored.
- Sorting of grain to remove discoloured grain before use for human consumption will assist in reducing aflatoxin levels.
- Contaminated grain should preferably be destroyed as aflatoxin has a way of finding

its way back into the food chain via contaminated milk or meat.

Research on storage practices of subsistence farmers at the ARC-GCI

The researchers at the ARC-GCI are involved in a follow-up study to determine the effect of storage systems on contamination by aflatoxins and other fungal mycotoxins (fumonisins, deoxynivalenol, nivalenol and zearalenone) in maize produced by subsistence farmers in northern KwaZulu-Natal.

Since storage systems are important sources of contamination and aflatoxin accumulation in rural areas, grain is collected after harvest and after grain has been in storage for three to four months.

Results indicate that one sample each from Vryheid (1,23 ppb) and Mbazwana (0,09 ppb) were positive for aflatoxin while a sample from Jozini had aflatoxin levels of 44,9 ppb.

Since the maximum allowable limit for aflatoxin in human food in South Africa is 10 ppb, some farmers, such as the one in Jozini, are still exposed to dangerously high levels of aflatoxins. This indicates that the nature of contamination is sporadic, but potentially very dangerous and intervention systems need to be developed to reduce possible incidence of aflatoxicosis in animals and humans.

Storage facilities presently used by farmers in northern KwaZulu-Natal (**Photo 1 - Photo 6**)

show that there are no quality storage systems in place to reduce consumption of aflatoxin-contaminated grain in subsistence farming systems.

Contaminated grain is stored in plastic and metal drums, under poor ventilation which might form an environment conducive for further aflatoxin production during storage.

Grain from subsistence farmers is often marketed locally or consumed within the household resulting in an increased exposure to aflatoxins. An improvement in storage facilities such as the availability of silos with temperature and air control systems as well as implementation of practices such as drying maize grain prior to storage to moisture levels of 12% or less cannot sustain the growth of fungi and could prevent further contamination by aflatoxins and reduce food wastage during storage.

Development of affordable technologies to determine moisture content before storage could also result in the control of aflatoxin production and fungal infection of grain during storage.

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Photo 1: Unshelled maize stored in a bag adjacent to dry beans at Manguzi.

Photo 2: Maize storage in a metal drum at Pongola.

Photo 3: A corroding zinc tank for maize grain storage at eMondlo.

Photo 4: A maize drying and storage facility at Pongola.

Photo 5: Maize grain storage in a plastic drum at eMondlo.

Photo 6: Maize drying on the ground at Jozini.



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Maximise wheat yield potential during the first 40 days

The first 40 days are the most important in determining the yield potential of your wheat crop. It is therefore important to make sure that all your management efforts are focused on maximising your yield potential during this stage.

It is during these first 40 days that the maximum potential in the number of ears, the number of spikelets on each ear and the flower packets on each spikelet are formed. If the farmer does not manage this period well, the potential maximum yield can be severely limited. To ensure that the maximum potential is

realised, we have to manage the following: **Weeds and fertiliser.**

Weeds

Weeds compete for food, water and light and, if left unchecked, can severely lower the potential yield. Remember that in a well-planned crop rotation system the focus falls on the control of broadleaf weeds within the wheat year. You should have addressed grass weed problems in the previous year's broadleaf crop and also with a pre-emergence herbicide applied before or at planting. Weed control can be applied anytime from the 2nd leaf stage of

wheat and the application of herbicide can also include either an insecticide or micro-element application as needed.

Be sure to read the label of the herbicide you wish to apply, since some can be used in a mix and others are more effective when applied on their own. Make sure that you apply the correct dosage too, because a higher than required dosage, or a sub-lethal dosage, may cause herbicide resistance.

It is also very important to alternate the type of herbicides you use from year to year to lower the chance of developing herbicide resistance. The aim of managing your weeds



Photo 1: The wheat crop at its most sensitive growth stage in June.

Photo 2: Healthy wheat.

Photo 3: What healthy wheat should look like during August.

early is to give the wheat crop the chance to outgrow any weeds that emerge later, so that the wheat out-competes the later-emerging weeds and maximises its potential yield.

Fertilisers

Fertilisers applied during the planting action of the wheat crop are, in most cases, placed under the seed in order for the plant roots to grow down and reach them during the first few weeks. Placing the fertiliser too close can, however, burn the seed, which lowers the plant count and subtracts from the possible potential yield. We want the optimum number of plants on the field to be able to realise the maximum potential yield, although a wheat plant can compensate for a low planting density by forming tillers during the tillering stage. This only happens up to a point and then the season's conditions need to be optimal to ensure that all the tillers develop to full ears and that they are filled.

The first top dressing can be applied during the last days of this important 40 day-period to ensure that the plants do not lack in their nutritional needs, since this can also limit the maximum potential yield. If the season is very rainy it might be necessary to apply the first top-dressing a little earlier, because leaching of the fertiliser, applied during planting, can occur more rapidly during such conditions. The

amount of fertiliser applied varies from farmer to farmer, but normally ranges between 30 and 50kg N/ha.

Remember that the management of the wheat crop during the first 40 days is critical in maximizing your potential yield. Once the maximum potential yield is formed, it cannot be increased after that.

From roughly six weeks after emergence to the end of the season the maximum potential can only decrease, never increase, so it is important to keep your eyes on the prize (or production target) the whole season. Once you have done all you can do to maximise your possible yield, you must still keep your management tight so that your management practices or lack thereof, are not the reason for not reaching that potential.

Yes, the season can play a role in the realisation of the potential, but you cannot control the climatic conditions. Do what you can do, well and the battle, from a management point of view, is won. 🌱

Article submitted by Dr Johann Strauss, Scientist: Sustainable cropping systems, Directorate Plant Science, Western Cape Department of Agriculture. For more information, send an email to johannst@elsenburg.com.





Wheat

– what a versatile grain!

15%, dietary fibre about 33% with the balance being a very small amount of omega 3 and omega 6 fats.

Wheat and milled wheat flour contains gluten protein which enables leavened dough to rise. The yeast added to and mixed with milled wheat flour starts a fermentation process which produces minute cells of carbon dioxide gas. The wheat gluten protein in the dough traps the gas which causes the bread dough to expand or rise as it is commonly known. At a certain stage of fermentation the dough is baked in an oven at various temperatures to produce many different kinds of breads and related products.

World and local production

Worldwide production of grains in the 2012 production year listed in million metric tons is as follows: Maize 872,02; Paddy rice 719,74; Wheat 670,88; Barley 132,89; Millet 29,87; Oats 21,06; and Rye at 14,56. These tonnages can be compared to our local commercial production of about 1.745 million metric tons. South Africans consume about 3,11 million metric tons of wheat with the balance required being imported and which amounts to about 1,8 million metric tons a year. We also export about 240 thousand tons and 18,000 tons of processed products a year as well as using about 20 000 tons of wheat for animal consumption.

Classifications of hardness

Wheat is classified in various hardness types that largely determine the milling and bread making properties of the many varieties grown in the world. The six main classifications include hard red winter, hard red spring, soft red winter, hard durum, hard white and soft white wheat.

Hard wheats have the most amount of gluten protein and are mainly used for making bread, bread rolls and all purpose flour. The soft wheats are mainly used for making flat bread, cakes, pastries, crackers, muffins and biscuits.

Durum wheats, which are high in gluten protein, very hard, translucent, and light coloured are used to make semolina flour for pasta and bulgur products.

Wheat production that is surplus to human consumption needs or of low quality, usually due to excessive rain at harvesting is used as animal feed.

Whole wheat

The health benefits of wheat depend entirely on the form in which it is eaten. Some wheats are processed into 60% extraction bleached white flour. This means that 40% of the original wheat kernel was removed. This portion contains the bran and wheat germ which is the nutrient rich portion of the seed. The remainder is just mainly composed of starch.

In the milling and sieving process over half of the vitamin B1, B2, B3, folic acid, calcium, phosphorus, zinc, copper, iron and fibre are removed. Products such as white bread, noodles, pastas, rolls, biscuits and cookies are made from such flour. In some countries the white bread flour has to be "enriched" with vitamins and iron.

This is why the powerful nutrition and health benefits of whole wheat bread products are being recognised by consumers around the world. Try and make some whole wheat bread for your whole family as a start in eating more healthy foods in general. Eating refined grains and the foods from them are being linked to weight gains and the development of insulin resistance and type 2 diabetes.

Other products

There are many other products not mentioned above which use wheat as a base. Wheat can be germinated and dried creating malt for brewing of beer or high alcoholic containing liquors, crushed or cracked, de-branned into groats. The outer husk or bran which is removed and separated in bulk during the milling process is an ingredient in porridge, muesli, crackers, rusks, gravy and many different types and brands of breakfast cereals.

The bran is also used in compiling rations for cattle and pigs.

Conclusion

As you enjoy your "daily bread" or cereal, one can give thanks for the many thousands of years of development and modern production of wheat which in either its natural and milled form provides food for millions in the world.

Wheat, as a small cereal grain, is one of the major grains used as a main staple food source for many nationalities and different social cultures around the world.

Wheat is one of the first plants known, that was domesticated in a region in south-eastern Turkey known as the Fertile Crescent about 9 500 years ago. Wheat production and its relative ease of being stored for later consumption was a key factor enabling the emergence of city-based societies at the start of civilisation.

It is highly nutritious, comes in a concentrated form as seed which can be grown and harvested by hand or mechanical methods, transported within a country or exported, readily stored and processed to produce a variety of highly refined raw foods.

Wheat is the leading source of protein in human food having a higher protein content when compared to the other major cereals like maize and rice consumed by millions. Wheat can have a range of protein percentages but most varieties fall within a range of between 11% and 13% protein. Protein levels found in particular varieties can be as low as 10% and as high as 15%. Carbohydrates make up about

Article submitted by a retired farmer.

Show weeds in wheat the back door

Any plant that is growing where it is not required or desired can be called a “weed”. Weeds are problematic to grain cultivation for various reasons – they compete for moisture and nutrients, they may cause problems during harvesting, they may contaminate or discolour grain, their seeds may be poisonous and they may harbour pests and diseases that affect the intended crop.

Weeds are usually characterised by rapid and profuse seed production, they spread easily and grow rapidly. They usually have very well developed root systems, and they are adapted to most conditions. They are difficult to control, hardy and compete very aggressively with the crop for moisture and soil nutrients. Weeds usually mature very young and therefore reproduce quickly.

Weeds have various ways of reproducing and these have to be taken into account when control of weeds is planned. Weeds can set seed (usually quickly and prolifically), some have underground stems (rhizomes), some have creeping surface roots (stolons), some have tubers and others have bulbs. The seeds of weeds often remain viable for a very long period – they are able to wait in the ground until conditions become favourable for them to germinate. Weed seeds also do not all germinate simultaneously – some germinate and others will only germinate at a later stage. This germination is often triggered by the cultivation of the soil.

The broad leaved weeds are comparatively easy to control chemically, whereas the wild oats and other grass like weeds which have a similar growth cycle as wheat, can be a real threat to wheat farming.

Weeds may complete their life cycle in less than one year – or in a season (these are called annual weeds), or they may live for more than a year but less than two years (these are called biennial weeds), or they may live for a long time and reproduce every year (these are called perennial weeds).

Why is it important to control weeds in crops?

Weeds compete with the crop for soil moisture, nutrients, space and light. This competition impairs crop growth and retards development, thereby reducing the crop yield. This competition may cause contamination of the crop seed, a decreased yield or decrease in the quality of the seed crop. The competition offered by



Undesirable weeds in a wheat crop.

weeds varies from crop to crop and from weed to weed – it may cause little as 10% or as much as 98% reduction in crop yield

Factors affecting the choice of herbicides

Crop rotation

Wheat may be damaged by the herbicides that have been applied to a previous crop, or the residues of herbicides applied to wheat may affect the following crop. (The residual effect is the long lasting effect of that chemical in the soil – certain herbicides are deactivated almost immediately on application which others remain active in the soil for an extended period.)

Adjacent crops

The drift or vapour of the spraying action may affect crops that are adjacent to the crop being sprayed. The strength and direction of the wind should be considered before spraying on any particular day.

Tillage practices

Soil-incorporated herbicides cannot be used where conservation tillage is practiced because thorough incorporation of the herbicide would bury too much of the stubble, and the application of the herbicide would have to be adjusted to compensate for that which falls on



Spraying of wheat with herbicides.

the stubble. In addition, where there is stubble on the land, the weed emergence tends to be delayed and erratic and the efficacy of pre-emergence herbicides may be reduced.

Using chemical weed control

Before any decision can be taken regarding methods of weed control, the relevant weeds should be identified and the farmer should know when these weeds will pose a problem. 🌱

Article adapted from the Wheat Production manual which is sponsored by the Winter Cereal Trust.

Get your financing ducks in a row

In a previous article the fact that the best debt is cash was emphasised. However, it was also explained that unfortunately we know, especially with a farming business, it is not always possible to pay cash and you are at times forced to borrow money. With the drought experienced this year in certain grain producing areas many farmers will be forced to borrow money to produce their next crop. It is not possible to describe within the length of this article all the financing products available, thus we will concentrate on the principles.

First of all, the question: Do I need to borrow money? This needs to be answered. There is but only one way to answer and substantiate this question and that is by compiling a proper budget. A budget (a physical and financial plan) should indicate what you are going to do and when and what it will cost and what your income will be. The budget must be at least for a year period.

Secondly, by means of the budget the farmer can then also distinguish which type of capital (money) is needed – capital to purchase assets (for example a tractor) or capital for production purposes. In view of the drought and subsequent poor crops one should perhaps ignore borrowing capital to purchase assets this year. It is more important to obtain capital to produce your next crop.

Thirdly, when you have decided that you really need to borrow money the next question is: From whom? To answer this question you will have to put in an effort to obtain information. Nobody will come and offer you a loan. Remember nothing comes easily and funding especially for new farmers and/or small farmers is not readily available. Contact financial

institutions (banks), agricultural businesses, the Land Bank, Grain SA, the National Department of Agriculture, the Department of Rural Development and Land Affairs, the relevant provincial departments, and others for information. The more information you obtain the better choice you can make.

The different financing products of the different institutions differ considerably and continuously change as affected by changing circumstances. For instance, as was reported in the Farmers Weekly of 3 April 2015 the Department of Trade and Industry has recently devised a programme to give emerging farmers access to funding and international markets. The “Black Industrialist Programme” planned to be launched soon will provide cheap loans through the Land Bank, Industrial Development Corporation, Development Bank of SA and the Public Investment Corporation. Even Nerpo has now resolved to establish a “Farmers’ Cooperative Bank” to provide financing to smallholder farmers.

Fourthly, according to the rules and regulations of the national Credit Regulator and of the Consumer Protection Act no institution may borrow you money without the necessary paper work. We just cannot get away from paper work. What does the paper work entail? Normally your application for a loan must be supported by actual and budgeted balance sheets, income statements and cash-flow statements. The balance sheet and income statement portray your financial position for the last couple of years, your present financial position and budgeted statements portray your expected financial position for the next year. The cash-flow budget is used to determine your repayment ability. The repayment ability refers to the amount of money that the farm business

has available annually for meeting loan obligations. It is the amount available after making provision for all farm and household expenses. No bank or other financier can prudently grant credit without first establishing the repayment ability of the applicant. For that they need the paper work and take note that each institution has its own set of requirements regarding the paper work.

The repayment ability of the business is influenced by the income-generating ability and disposable income of the business, the fixed liabilities of the business, the interest rate, and the term for which the loan is granted.

Providing all these statements is a burden but on the other hand it is very advantageous. It forces you to apply a proper financial record system and therefore helps you to become a manager par-excellence. You can either complain how difficult it is or you can take up your pencil and apply your record system, the choice is yours. Nobody else is going to do it for you. It is up to you to manage your business in such a way that you will still be there when the rain comes. We have already stated that obtaining funding is difficult and without your own positive inputs it is that more difficult.

In conclusion, because of the difficulties in obtaining funding do not wait till the day you need the funding. Do your homework well in advance, get your paperwork in order and get as much information as you can. 🍀

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Pula Imvula's Quote of the Month

*"The most common way people
give up their power is by thinking
they don't have any".*

~ Alice Walker



Ensure that input prices are market related



Keep talking to and learning from everyone around you.

Many businesses have dedicated procurement departments. They communicate regularly with suppliers to ensure that quality products are obtained at the best possible prices.

Most farmers do not have the benefit of this type of infrastructure. We have to do the job ourselves. This requires knowledge, information and time – things we do not always have at our fingertips. So we just do the same as the previous season. Being blissfully unaware that there may be a better deal out there, we trust that the representatives and companies we are dealing with, are acting in our best interests.

Because of the seasonal nature of crop farming, we generally only communicate with our suppliers once or twice a year. This does not lend itself to building firm relationships. We are also, more often than not, isolated. Our farms sometimes are too small to attract interest from competitive companies further afield. So, once again we remain loyal to existing suppliers in the hope that we are getting the best deal.

Whilst being careful not to generalise and accuse suppliers or contractors of taking advantage of farmers, we have to admit that this situation lends itself to exploitation – especially to emerging and developing farmers. Any company has the right to obtain the best prices for their products, in order to maximise its revenue. Our suppliers are no different – nor are we!

Unfortunately, farmers have no say in the selling price of their own products (crops) – the best we can do, is to ensure that we obtain our inputs and other services at the best possible prices. The only way to do this is by **communication** – by obtaining information and then comparing products, services and prices.

In doing so, always be careful not to look at price in isolation. Always consider and compare the quality of the product or relevance of service in question. **A “good” price for an inferior product always ends up being very costly!**

So how do we go about finding the right price? Here is some basic “food for thought”.

Talk to your neighbours

Don't restrict your conversation topics to family, politics or weather. Talk about suppliers – costs, service **relationships**, special deals. Share your own experiences – so that your fellow farmer also benefits. How else will you ever know whether you are being treated differently to the other farmers in your area? Believe it or not – it happens!

Did you know that there are usually discounts available to farmers? Most national suppliers use incentives and special deals to attract new business – or to keep existing business.

You can't ask for something you don't know about. If you don't talk to your fellow farmers you'll never know! So **communicate** with each other. Crop farmers should never consider themselves in competition with one another. We are equally challenged by climate and international market trends. Let's **join hands, share information** and produce good food – and hopefully enjoy some financial benefit ourselves!

Join a local farmer's association or a study group

Actively participate in meetings. Ask questions. Encourage discussions around pricing – and other benefits offered by suppliers. Invite supplier representatives to give presentations and answer questions.

Initiate **conversations** with fellow delegates during breaks, or after the meetings. Participate in panel **discussions** and **feedback**. Share your experiences.

If this is not happening in the meetings – encourage the chairman or facilitator to implement it.

Talk to suppliers and contractors

Communicate regularly with your existing representatives. Ask them about new products and incentives. Don't wait for them to initiate these conversations. Don't wait for the last minute when all representatives are busy writing orders and do not have time for **discussions**. Initiate meetings. **Talk** to them out of season – when you both have enough time to **discuss** crucial matters. Get to know each other and **build relationships**, which could potentially end up in long term **partnerships** – essential for any farmer.

Contact other suppliers. Find out how they could assist you. Get formal **quotes**. Compare products, services and prices. You are not being “disloyal” to your existing supplier or supplier representative by applying good business practice.

Visit the NAMPO exhibition, in Bothaville during May each year. Here you will find every worthy supplier in the country and many international companies. Use this opportunity to **talk** to the representatives as well as see their products – getting as much **information** as you can, to enable you to make informed decisions later.

Introduce yourself to the manager at the local co-op – let him get to know you. Have you ever met the manager at your diesel depot? Are you aware that discounts are available for diesel?

Over time, you will establish long term **relationships** that will be based on mutual trust. Loyalty is the result of honesty, good **relationships**, open **communication**, mutual **respect** and **trust**. Any relationship needs commitment from both sides – don't be scared to end a bad relationship.

Never be afraid to negotiate – if you don't ask you will not receive!

Conclusion

Reliable information is crucial to the success of any business. Without **communication** you will be unable to have access to good information. Good **communication** stems from good **relationships** – with suppliers, contractors, fellow farmers, study group members or farmer associations.

Keep talking – keep listening! Give it some “thought”, and then go and produce some good “food”! 🍌

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Articles written by independent writers are the views of the writer and not of Grain SA.

Grain SA interviews...

The National Farm Workers Forum

The National Farm Workers Forum was founded on 18 January 2013 as a result of the farm worker strikes that occurred in the Western Cape. During the strikes the farm workers realised that we do not have a platform anywhere that we can use to say what we feel. Other people regularly wanted to talk for us, while we, the farm workers, had actually given nobody a mandate to talk on our behalf. On 18 January 2013 they gathered and founded the forum as a recognised spokesperson for farm workers, by farm workers.

The forum comprises one or two representatives from every farm that joins the forum. No enrolment or membership fees are payable. An aspect that is also very important to us, is that the commercial producer whose farm workers are members of the forum also has the opportunity to join the forum.

The main aim of the forum is to improve the relationship between farm worker and producer. We believe that communication is the key to building sound relationships and the forum therefore pursues this and we believe that any problems between the employer and the employee

can be resolved around a table. We also ensure that workers and employers are at all times treated fairly and in accordance with the law.

We also look at sports activities like rugby, soccer, choir competitions, domino evenings and many more to promote healthy and constructive activities and improve the quality of life of farm workers. We have the interests of our farm workers at heart.

The forum is a great success and has grown considerably in the past two years. We are active in 16 regions in the Western Cape and intend expanding further in the rest of country – we are also registered as The National Farm Workers Forum.

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Farm workers now have a platform where they can say what they feel.



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