PULA IMVULA

GRAIN SA
GRAAN SA

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>> GROWING FOOD >> GROWING PEOPLE >> GROWING PROSPERITY >>

NORTHMEC

PULA IMVULA

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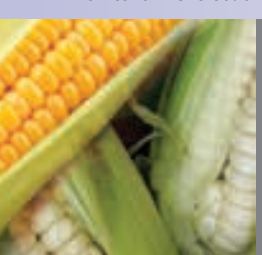

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NKGONO JANE SAYS...

IN THIS ISSUE...

There has again been a lot of talk about land redistribution, land reform and restitution. Unfortunately there is a lot of emotion about the subject and not a lot of clear thinking around the challenges that we are facing. We all agree that there is a great need for transformation in the agricultural sector and that most of that is related to land and systems of sustainable land tenure. However, land itself has no value in terms of income generation and food security unless it is being used productively. At this stage I would venture to say that there are literally millions of hectares of land that is not being used optimally – and yet we continue to say that we must transfer more land!

I believe that we need to have a clear perspective on the reasons why land reform projects have failed and why so much land is not being used. Of course people need training and skills development – that is most important because without the knowledge, all efforts will fail. However, as Grain SA we have trained and are supporting thousands of farmers who have access to land but they cannot use the land optimally because they do not have access to mechanisation (the correct and appropriate mechanisation) and they cannot access production loans or the correct production inputs. Unless we address the challenges of financing and mechanisation, every land transfer is doomed to failure.

I do so hope that somewhere out there we can get some influential members of government to understand the real challenges that we are facing. The lending institutions are not willing to take the risks that are involved to finance new farmers (and the credit act prohibits reckless lending). The Land Bank is not performing. The agribusinesses are doing a little but they are also hampered by the credit act. Some of the provincial departments of agriculture give inputs and contract people to work the lands – this has failed in the past and continues to fail. The recapitalisation programme of the Department of Rural Development and Agrarian Reform is good, but there is not enough money to meet the needs of the people. We need a very focused and well informed team of people to address this challenge.

I plead that we should first help those who already have access to land to be able to use the land productively – then we can do more redistribution. Remember that farmers feed the citizens of this country and if land becomes unproductive and people go hungry, this beautiful land of ours will become ungovernable.

Agricultural contractors – what you need to know

Contracting is becoming more and more of a reality in farming, especially for smaller farmers, as the price of vehicles and implements to do the farm work is becoming prohibitive. It is not uncommon with the current prices of farm equipment for that equipment to be worth more than the land itself, so it does not always make sense for a farmer to outlay huge amounts of money on highly expensive machines like a combine harvester and a high tech spray.

This is why so many farmers opt to use contractors to do certain of their operations. However, some operations are more risky to leave to contractors, such as the planting process so this is usually best done by the farmer himself because he will ensure that conditions are right and the planting is done at the right time. Timing of many farming operations is critical and contractors can't always get to you at that moment when you need them. The most common contract services are for land preparation such as ploughing and discing as well as spraying and harvesting.

Some advantages of using contractors

1. The main advantage to using contracting is that the door is opened to using specialised equipment which should be able to do the best job possible. This also usually means the process is done quickly and efficiently.
2. The farmer knows ahead of time what the contracting will cost and can plan and budget accordingly.
3. Furthermore, he will not have the headache

of unforeseen breakages and neither will he be liable for the expense of the repairs to implements or machines.

Some disadvantages of using contractors

1. There is always a risk of the contractors being busy and the farmer will have to wait his turn to get their services.
2. The time pressure on the contractor may cause them to rush the job and not perform the service as thoroughly or properly as he should.

Responsibilities of the farmer

- The farmer must be well informed about what fair prices are for specific operations. He should do his homework and compare a few quotes from different service providers.
- The farmer must plan for his contracting service early. He must find a reputable contractor and book him early so that he is sure his operations will be performed at the right time.
- The farmer is always ultimately responsible for the quality of the job being done. He should be present and monitoring the quality of the work being done and never simply trust the contractors or their employees to do the job properly.
- The farmer is paying for excellent service and he has the right to stop the operation if he is not satisfied with what he sees happening. Too many farmers seem to just trust the contractors to do a good job and they do not monitor what is happening in their own fields. For example, while it is the contractors' responsibility to check there is no wastage, especially during combining time, it is also the farmer's responsibility to keep an eye on the wastage and request that adjustments are made to reduce that wastage. Also, when contractors do critical spraying operations, it is critical that the farmer is involved in the process, always monitoring the mixtures and quantities of the poisons which are sprayed.
- Once the job is completed to the farmer's satisfaction he must be able to pay the contractor his due. This will help build a healthy reputation which will ensure good service from the contractor in the future.

Responsibilities of the contractor

- The contractor needs to plan his work so that he can honour his commitments and arrive at the farm when he says he will arrive. He should communicate with the farmer and give the farmer an idea of when he can be expected.
- His machines must be well maintained in order to deliver the best job possible and have as little time wasted dealing with breakages during the high pressured season.
- The contractor should be an expert and he must work on the farmer's lands with care and respect. He must constantly monitor the machines and make adjustments to ensure optimum delivery. For example, sprayer nozzles must be kept unblocked and spraying evenly; and combine harvesters must be monitored and adjusted to manage the wastage levels on every new field.

In conclusion

It is a good idea to build a positive working relationship with the contractors you will be working with. They can ultimately make a big difference to the success of your farming operations. It is equally important that the contractor respects you as the farmer and is well aware that you will be a hands-on manager who will be present and monitoring the contracting operations.

Article submitted by Jenny Mathews, Pula Imvula contributor. For more information, send an email to jenjonmat@gmail.com.

Are you a leader or just a boss?

To write an article of about 800 words on leadership – quite a challenge! Without fear of contradiction it can be stated that as far as the broad field of management is concerned leadership is one of the most discussed topics. Therefore the approach of this article will be to highlight a few practical and hopefully thought provoking ideas on leadership.

Whilst attending to the management tasks of planning, organising, implementing and control the owner/manager of a business must also be the leader and take decisions, communicate internally and externally, delegate work, coordinate sections, motivate his people and maintain discipline both informally and formally.

Leadership is the ability to inspire and/or influence others to get work/actions/tasks/activities done willingly and in good spirit to attain certain objectives. Leadership can also be described as the process of directing the behaviour of others towards the accomplishment of set objectives. Therefore a leader is the one that influences other people to do what needs to be done to achieve the objectives. Someone must set certain activities in motion especially regarding the implementing of plans and keep them going. This someone is the owner/manager who is also a leader. In your business you are the one to influence your employees to willingly and in good spirit do what needs to be done to achieve the objectives of your business.

To be able to influence other people a leader must possess integrity because integrity is regarded the most important ingredient of leadership. Integrity is described as the quality of being honest and exercising morally high values. When I have integrity, my words and my deeds match up. I do what I say. I am who I am, no matter where I am or who I am with. My yes is yes and my no is no. Integrity means living it myself before leading others.

Integrity builds trust and respect and is the human quality most necessary to business success. Integrity results in a solid reputation, not just an image. Integrity helps a leader to be

Are you a leader or just a boss?

credible, not just clever. Integrity is not what we do so much as who we are. And who we are, in turn, determines what we do.

A few ways to demonstrate integrity:

- Live what you teach.
- Do what you say.
- Be honest with others.
- Put what is best for others ahead of what is best for you.
- Be transparent and vulnerable.
- Never promise someone something and then not keep the promise.

The performance of any organisation, small or large, is directly related to the quality of its leadership. The success of business organisations is not necessarily due to an individual's competence as manager but rather **to his/her ability as a leader**. Good managers are not necessarily good leaders. To increase the performance of the organisation, it is obviously desirable that all managers should also be good leaders. Fortunately a manager can develop his leadership skills through training and practising the skills.

Do you want to become a better leader?

1. Remember that as a leader, you will be required to make decisions that will sometimes be unpopular. You cannot satisfy everyone but should attempt to gain everyone's respect, rather than to be a buddy to all your employees.
2. Resist pulling your rank by telling employees that you are the boss and that they must do as you say.
3. Show courage and persistence. Do not back away from trouble and opposition but stick to your guns and have confidence in your own convictions.
4. Be fair: Treat all your employees in the same way. Favouritism is a sure way to trouble and destruction of team spirit.
5. Be genuine. If you do not know the answer to a problem, say so. Then make sure that you get the answer as soon as possible. Trying to be a know-all will only isolate you from employees, whereas asking for their opinions will make for better human relations.
6. You must know your people – names and faces, personal background, strengths, weaknesses, likes and dislikes, and so forth.
7. Set the example – you expect your employees to be on time – are you always on time?

> *The **pessimist** complains about the wind.*
> *The **optimist** expects it to change.*
> *The **leader** adjusts the sails.*

Article submitted by Marius Greyling, Pula Imvula contributor. For more information, send an email to mariusg@mcgacc.co.za.

Perhaps the following will stimulate you to evaluate yourself:

I AM A LEADER NOT A BOSS
A BOSS KNOWS EVERYTHING
A LEADER ADMITS MISTAKES
A BOSS TELLS PEOPLE WHAT MUST BE DONE
A LEADER SHOWS HOW TO DO THINGS
A BOSS CRITICISES
A LEADER GIVES ADVICE
A BOSS TALKS FIRST
A LEADER LISTENS FIRST
A BOSS GIVES ORDERS
A LEADER GIVES DIRECTIONS
A BOSS DEMANDS RESPECT
A LEADER EARNS AND DESERVES RESPECT
A BOSS RULES WITH LAW
A LEADER SHOWS HUMAN KINDNESS

Reduce compaction and improve soil water holding capacity for optimum yields

Plants need water in order to grow and bear fruit; this is a common fact of life which we as farmers need to take seriously. If we can optimise the water availability to our crops then we will reap the benefits when it comes to harvesting time.

The more water available to our crops the greater our yields will be. A good example of this is irrigation; when crops are irrigated, better yields are achieved. Dry land cropping on the other hand is solely dependent on rainfall, which is why it is very important for farmers to manage their water effectively.

In order to manage the water availability to our plants we need to look at the soil and try to understand what we can do in order to improve the soils water holding capacity.

We need to reduce run-off

Water which runs off of the top soil is water which our crops lose out on. To reduce run off we need to try and keep the soil bound by some form of vegetation or covered by mulch which is usually the previous season's crop residues. Many farmers plant a cover crop such as oats or rye grass in the early winter when there is still a little moisture available, this is however very dependent on the season and moisture availability. Because of the run off problem many farmers have changed over to no-tillage, a practice which hugely improves water absorption and reduces run off and top soil loss. Another method which is commonly used in sloping regions is contours. By law, if your land is sloping by a certain degree, contours need to be established to reduce run off and loss of top soil.

We need to reduce compaction

The harder the soil is compacted the harder it is for water to penetrate the top soil. Compaction is especially a problem in the central and western regions of South Africa where the sun bakes the soil in the winter forming a hard crust. The best method to reduce this problem is to decrease the amount of traffic on the lands, especially during harvesting time. Try to keep most of the heavy traffic on the sides of the lands. Floatation tyres can be used on grain carriers and trailers which help with weight distribution. With modern geographical positioning technologies and automatic steering devices farmers are now able to control their traffic more effectively in their lands by staying on the same tracks throughout the season.

Livestock also cause significant compaction when feeding on the crop residues in the winter months. To reduce this problem you could gather the residue material and take it to the animals away from the lands, this is an expensive exercise compared to chasing the cattle into the land and leaving them to graze. Due to the expense of bailing residues most farmers prefer the alternative which is to till the lands intensively by implements before planting time. Usually farmers will put in a deep ripper after the rain, followed by a disc or plough which breaks up the soil forming a seed bed which the water can easily penetrate to reach the roots.

Conclusion

If we do not take care of our soil then we will not achieve the yields which we desire. The soil is the vehicle which we need to produce crops. If the earth is left as a hard crust with no biological material or porosity then we will not be able to grow anything let alone good yielding crops. Dry land farmers especially need to take this to heart because during tough times of drought every drop of moisture is vital for the plants survival as well as the farmers' survival.

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

Monitor your land for signs of compaction.

What should be on my "TO DO" list for OCTOBER?

It is that time of year again! Planting season is upon us and many farmers will be feeling the pressures' of trying to organise and plan last minute things for the new season. Good preparation is the key to successful farming operations! Let us take a look at some important tasks for this month.

By now all orders for your inputs should already have been made, so if not, it would be wise to get onto that as soon as possible. If you leave it to the last minute you may be disappointed by seed shortages.

It is time to start preparing your lands for planting. This means spraying, cleaning, disking, cultivating, ripping, or doing whatever needs to be done to get your lands in a good planting condition.

The machines that have been sitting in the shed or under a tree in the yard all winter need to come out of hibernation. Hopefully they were stored away in a good state which would make the job now a lot easier. Go through the machines to check bearings, tyres, chains and belts. Make sure the bins are clean and that all parts and mechanisms inside are in good order.

Depending on the arrival of the rains you will soon be very busy. This is why it is important to prioritise. Keep a note of all important tasks that you still need to perform. If you manage your time wisely and effectively you will reap the benefits throughout the planting season. Good luck and happy planting!

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

Maintenance – a discipline in mechanisation

The importance of an effective maintenance program cannot be overlooked because it plays such an important role in the effectiveness of lean manufacturing.

As in personal health care insurance, maintenance may be considered the health care of our manufacturing machines and equipment. It is required to effectively reduce waste and run an efficient, continuous manufacturing operation, business, or service operation. The cost of regular maintenance is very small when it is compared to the cost of a major breakdown at which time there is no production.

Purpose of maintenance

The main purpose of regular maintenance is to ensure that all equipment required for production is operating at 100% efficiency at all times. Through short daily inspections, cleaning, lubricating, and making minor adjustments, minor problems can be detected and corrected before they become a major problem that can shut down a production line. A

good maintenance program requires company wide participation and support by everyone ranging from the top executive to the shop floor personnel.

Focusing on the bottom line

Today, with industry so focused on the bottom line, the cost of downtime has a big impact on profitability. If equipment starts to wear, input and maintenance costs will rise and consume all of the profits.

Eventually, machine wear will seriously affect not only productivity but also product quality. World class companies already have taken a game changing approach, implementing a new service business model to change maintenance systems into smart service and asset management solutions. They reduce downtime and provide the ability to look ahead at the quality of products before they ship by closely watching equipment performance and machine wear. Rather than reactive maintenance – **"Fail and Fix"** – companies can indeed move to **"Predict and Prevent"** maintenance.

Article supplied by Arno du Plessis, National Sales Manager, CaseIH Northmec. For more information send an email to arno@northmec.co.za.

A closer look at Alternaria leaf blight of sunflower

Typical leaf symptoms caused by Alternaria leaf blight of sunflower.

Early death of Alternaria infected leaves on sunflower plants.

Alternaria leaf blight is caused by various fungal species of fungi which belongs to the genus Alternaria (A. alternata, A. helianthi and A. zinnia). Although a number of Alternaria species have been reported to cause diseases on sunflower, only Alternaria helianthi, which is the most common Alternaria spp. of sunflower, is responsible for high yield losses.

Severe disease infections occur mostly in warm, humid environments. In South Africa the disease occurs in various sunflower producing areas, such as the North West Province and the Free State. Alternaria leaf blight is currently a major potential disease threat of sunflower in South Africa.

The disease is capable of causing yield losses up to 80%, with corresponding oil losses of 20% to 30%, especially in more tropical and subtropical production areas. Locally, very little research on the extent of damage caused by Alternaria spp. has been carried out to date. The yield losses caused by Alternaria leaf blight in South Africa are unknown at this stage. The disease also reduces sunflower seed germination.

Symptoms

Alternaria spp. causes disease on leaves, petioles, stem, sepals and petals of sunflower plants. Leaf symptoms appear as circular, dark brown to black lesions with concentric rings ranging from 0,2 mm to 0,5 mm in diameter.

Lesions will eventually enlarge in size and coalesce causing blighting of leaves (**Photo 1 and Photo 2**). Some lesions can be identified by distinct yellow halos, particularly on young plants. Stem lesions start as dark flecks that enlarge to form big, elliptical to diamond-shaped, sunken lesions. Dark brown oval to circular spots with a target board appearance can form on heads. If the disease is severe, plants may be defoliated prematurely and die or frequently lodge.

Disease life cycle

The pathogen survives between sunflower crops in and on infested crop debris, on weed hosts and on seed. Mycelia survive in the plant debris covering the soil and less frequently on seed. Disease occurs when spores (conidia) land on leaves or stems, germinate in the presence of moisture, and directly penetrate and infect the leaves.

Spores are disseminated through rain or irrigation water and wind. Disease developments occur between temperatures ranging from 25ºC to 27ºC, accompanied by at least 12 hours of wet foliage. Plants are most susceptible to infection at the beginning of flowering and continuing through to maturity.

Control

The disease can be controlled through cultural practices, such as crop rotation, destruction of plant debris and tillage operations that bury and rapidly promote residue decomposition. It can also be controlled by the use of resistant or tolerant varieties and correct plant spacing.

Chemical seed treatment with fungicides significantly reduces the incidence of Alternaria seedling blight. Available registered fungicides can be used to control Alternaria leaf blight.

Article supplied by Moses Ramusi, Bradley Flett and André Nel, ARC-Grain Crops Institute, Potchefstroom. For more information contact the authors at 018 299 6100 or send an email to RamusiM@arc.agric.za, FlettBC@arc.agric.za and NelA@arc.agric.za.

SOYBEANS
– an overview and some production hints for the 2014/2015 crop

Soybean production is gaining ground amongst farmers and it seems that farmers that have planted for the last few seasons are in general increasing the area planted under soybeans.

Soybean futures per ton are trading in a narrow value band which ranges from between R5,117 per ton for August 2014 futures to R5,210 per ton for March 2015 and then a drop to R4,535 for May 2015.

The consistent values and future price stability going into and through the next production season indicate that the supply and demand for soybean seed is in reasonable balance. This will help in your production planning cost analysis.

The Sagis data shows that the final yield for soybeans this last season is forecast at 944,340 tons. This will be about 160,000 tons more than the previous year. The market is thus able to cope with the steady increase in production of local soybeans. Remember that the quoted soybean futures prices to not include the transport differentials as with other grain seeds traded. This will enable you to make an accurate estimate of the "spot" price received on farm for your coming season's soybean crop. Ask your local co-op what they would expect the soybean "spot" price to be for May 2015.

Production hints

Gross margins

Using the above information the gross margin analysis for soybeans and the other crops to be planted on your farm, the area to be planted to soybeans can be decided. Make sure that your finances are in place well before the season starts so that all inputs can be purchased in time.

Tillage

It is important to work the lands as soon as possible during August if you have been using the soybean plant residues for your cattle or sheep. Your main tillage operations and crop rotation system will determine what primary tillage operation will be implemented. This will included decisions on discing and ripping in a conventional system or a chemical control weeding system in a conservation or minimum tillage to be used if you have opted to bring this method into you farming operation.

It is important to be able to conserve as much moisture as possible from any rainfall received before planting needs to take place. There is no substitute for preparing the lands properly.

Seed and cultivar choice

Ask your fellow farmers who planted soybeans at various times and seeding rates what their final yield results were and which cultivar was used in each case. Seed consultants will also be able to tell you which cultivars have been yielding well over the last few seasons under very different climatic conditions. The last few years of production in different areas will have helped to identify which types of soybeans have been successful in your farming area.

Order the seed that you have chosen in time.

Seeding rates

If you keep back your own seed to plant it would be prudent to have the seed cleaned and classed to eliminate all the very small seeds. Soybean seed can vary in average weight or mass from between 0,11 of a gram to 0,18 of a gram. If you are planting with the planter set for kilograms per hectare this needs to be taken into account. Weigh samples of 100 seeds and then set your planter to plant about 350,000 plants per hectare. One can allow an extra 10% for any possible germination problems. This will be an ideal plant population in most dryland production situations and will give you a good crop in a dry or wet year.

Test and set your planter whether this is to be in kilograms or plants per hectare for air planters.

Inoculants and root growth enhancers

Contact the various suppliers of the rhizobium inoculants and discus the options available. Several companies now supply well proven combinations of inoculants and root growth enhancers. Inoculants are available that can be applied to the seed in advance of planting with a storage life of ten days or more. This helps to be able to plant the crop in the ideal planting period.

Proper nodulation of the rhizobium bacteria on the main tap root of the soybean plants are one of the most important factors for successful soybean production. Only eight large nodules can supply enough nitrogen for optimum crop. Ask the consultant to help you at planting time if you are not sure how to use the various products.

Fertilisation

A very positive reaction to fertilisation of soybeans has been experienced in trials in the Eastern Free State. If your soils are not highly fertile, or have a low phosphate content it is advisable to plant with fertiliser but this must be placed well below and to the side of the seed.

Weed control

Ask you chemical consultant to review your weed problems and together work out which chemicals and at what cost per hectare will be used. Keep in mind whether you will be using a glysophate or conventional control system and if the spraying program will suit your spraying and planting equipment.

> *"The consistent values and future price stability going into and through the next production season indicate that the supply and demand for soybean seed is in reasonable balance.*

Conclusion

Early planning will enable you to plant on time with the right cultivar for your area. Make sure that the seed is inoculated properly and double check plant population at planting to give yourself the best chance for a successful crop in 2015.

Article submitted by a retired farmer.

A brief look at the history and production of canola

Canola is a relatively new crop in South Africa, with many different varieties (cultivars), mainly derived from the *Brasus napus* plant.

During the late eighties and early nineties, with the rising input costs and shrinking profit margins of conventional grains, such as wheat and barley, the need arose to explore different crops that would not only be compatible with the existing grains and crop rotations, but also enhance them, in the Southern Cape and Swartland.

After initial exploration and experimentation, it seemed that canola had the potential not only to meet the previously mentioned requirements but also had many other advantages.

Advantages of canola

- Canola breaks the cycle of diseases transferred from one year to the next, via remaining roots and stubble, in a traditional grain system, giving rise to healthier crops.
- Different products may be used for the control of weeds and grasses in particular, may be far better controlled than in other grains cultivated in the Western Cape.
- Canola has a very well developed tap root, which naturally loosens soil by deep penetration.
- Grain planted on canola stubble has a higher yield, increased yields of up to 20% have been recorded on such lands.
- Having more diversification in crops, helps to spread the financial risk of high input costs.
- The existing planting and harvesting equipment may be used.

So from an agricultural point of view canola fits in like a glove, however the question now arises about the product its self. The raw canola is pressed, by so doing extracting the oil, which is utilised in products such as canola oil and margarine. The pulp left after the oil has been extracted is rich in protein and is an excellent animal feed, utilised by the livestock farmer. Furthermore canola has potential to be used in the production of bio-fuel, as is already being done in some European Countries.

Table 1: Production of canola.

Year	Producer numbers	Ton per producer
2011	293	198
2012	334	234
2013	433	260

Canola had very humble beginnings, when in 1992, 30 producers planted 400 ha and produced 500 tons, which when converted means each produced about 16 tons. Cultivation of canola grew steadily in the following years, and was boosted by Sothern Oil Ltd establishing a pressing facility in Swellendam.

Looking at **Table 1** it is quite clear that the production of canola is on an upward curve and that the average tons produced has risen from 16, in 1992 to the present 260 of 2013.

The total canola produced in 2013 was 113 000 tons from 68 000 ha.

The earliest crop estimates for the current 2014 season is about 82 000 ha, with a potential of 125 000 tons.

Looking at the canola industry in South Africa today and from where it has come one can be nothing other than proud and grateful. I would like to use this opportunity to thank everyone that has been or is part of the canola industry in South Africa, in particular The Protein Research Foundation (PNS), Soill (Southern Oil Ltd), Agricultural Businesses, Grain SA and all the producers.

Article submitted by Martin Heydorn, Chairperson of the Canola Specialist Working Group. For more information, send an email to m.j@twk.co.za.

Looking at the canola industry in South Africa today and from where it has come one can be nothing other than proud and grateful.

Sunflower production that makes you smile

October month is a busy time on any grain farm as the new season lies ahead. If you are considering planting early sunflowers, then October is the month to start preparing. There are a few very important aspects to give attention to if you decide to grow sunflowers this season.

Sunflowers do well on a firm, clean, well prepared seedbed. They don't germinate well in a freshly ploughed land of loose soil. Ideally if you want to plant sunflowers with the first rains, then the field should have been ploughed and disced in the winter already so that the soil has settled by planting time.

A good practice if there is time is to work in your Treflan herbicide in the early spring. This is a very economical herbicide which controls invasive grasses well. It has to be incorporated into the soil with a light discing or a tine implement and this action already then provides a good seedbed to plant your sunflower seed in.

Seed treatment

It is critically important to ensure that your seed is treated with a seed dressing which is an insecticide and fungicide as this ensures their protection in the critical early germination stage.

For a successful sunflower harvest, good germination of the seeds planted is essential and this is one of the most challenging aspects of sunflower production.

1. A good enough plant population must be planted at the outset. This depends on the region you are farming in, but generally from 35 000 - 40 0000 seeds per hectare is a good rule of thumb. In other words if you are planting 90 cm rows, then it will mean planting four seeds per meter to get an ideal stand.
2. Sunflower seeds should not be planted too deeply. An ideal depth would be about the width of a matchbox held sideways.
3. Crusting is a big hindrance to germination. Hard topsoil prevents the seeds from emerging and causes them to curl and grow sideways and eventually die before they can emerge. To assist the emergence of the delicate sunflower seed a good practice is to duisendpoot your sunflower field three to four days after planting. If you have rain in the pre-emergence period, it may even be necessary to perform a further duisendpoot operation as rain causes the soil to crust again. This is actually a very cheap and worthwhile operation which lowers your risks considerably and could be the difference between the success or failure of your sunflower crop.
4. If you have not incorporated your herbicide pre-planting, then it is now the time to spray a pre-emergence herbicide on the field. Weed control is critical at this stage to reduce competition for water and nutrients in the soil and to enable the small seedlings to become sturdy.

Sunflower plants grow very slowly in the initial stage up to four weeks which is why it is essential to give them a good start and reduce all competition. Once they reach ankle to knee height, then you are almost 'home free' and, assuming it rains well, you are virtually guaranteed a good crop. You will most likely need to cultivate the young seedlings once more, but after that they grow very quickly and you will not easily fit your tractor and implements into the fields again. All that remains is for the farmer to constantly monitor the field for pests and diseases and the weeds which will need to be hoed by hand if they are a problem. Watching and monitoring are your key management processes throughout the growing season.

Article submitted by Jenny Mathews, Pula Imvula contributor. For more information, send an email to jenjonmat@gmail.com.

Slugs, insects and other pests on CANOLA

The protection of the crop against insect pests is a major management action in canola cultivation. That is why the Protein Research Foundation (PRF) often requests Dr Geoff Tribe to investigate the extent of the problem and make recommendations on how to manage it better.

Dr Tribe is a well-known agricultural entomologist in the Cape who was associated with the Plant Protection Research Institute in Stellenbosch until he retired recently. Thanks to this work by Dr Tribe and his co-workers in the field of insect pests, canola producers now have more appropriate information available to draw up an intensive management plan.

It is noteworthy that the report places greater emphasis on the monitoring of insect numbers and a more effective yet more environmentally friendly application of chemistry.

Producers already know that a number of insects regard canola as a particularly tasty snack. One combination – isopoda and slugs – has the potential to make a serious dent in the yield and quality of the crop. There are others too, but at present they are not as important.

Isopoda

In contrast to what many producers believe, isopoda do more damage than slugs. “In fact, the two start their raids virtually at the same time,” says Dr Tribe.

Isopoda (*Armadillidium vulgare*) are the flat, grey, myriapodous bugs that occur in great numbers and characteristically curl up into small balls when disturbed. They do the most damage, even if slugs sometimes occur in large numbers.

Isopoda mostly hide just below the surface of the soil and attack rapidly, particularly if it rains later than usual. Only a little moisture is required. Although most of the damage is done at night

Photo 1: Dr Tribe regards these alien cabbage aphids (they also attack canola) as little more than a nuisance. They usually attack at 50% blossom stage and infest only about 0,1% of a field. Their parasite, a small type of wasp, also tagged along and exercises good natural control if left undisturbed. Photo: Dr Geoff Tribe

Photo 2: The photo shows part of a trial where plots were treated with slug pellets (metaldehyde and carbaryl) at a rate of 8 kg/ha during planting. The bare section is the untreated control plot. Photo: Dr Geoff Tribe

Photo 3: These alien slugs occurred in great numbers in places in the Overberg in particular this year. Dr Tribe recommends a combined application of metaldehyde and carbaryl at a rate of 8 kg/ha, to be spread on planting, as this is the most cost-effective method. Dr Geoff Tribe

Excited about the future of canola in the Cape

Producers who were privileged to meet Mr Phil Thomas, Canada's "Mr Canola", during his visit last year, or who have read his report, will know with what enthusiasm he described the future of canola in the Cape.

'However, this will not happen on its own,' Thomas warned. A lot of work lies ahead. He visited South Africa at the invitation of the Protein Research Foundation (PRF) last year to provide a critical overview of the status and future of the local industry.

Thomas was really impressed with the potential of canola locally, and with the high level of management expertise of a large number of canola producers.

He believed that these canola producers were far ahead of their neighbours as far as yield and profitability were concerned, even though production conditions like climate, soil and varieties were almost identical.

He believed that the better management practices of the top producers were the only difference most of the time. Currently better management is the best way of dramatically increasing production. Improved genetics and larger areas under canola on their own are not sufficient – although this naturally helps.

According to Thomas, canola fields in the Cape are not yet managed optimally everywhere. This clearly demonstrates that the proven best practices of increasing and protecting yields are not yet applied properly everywhere. He believes that this aspect is still the main hindrance to higher productivity.

The PRF has realised for quite some time that some of the canola management practices can be improved further. That is why it has been gathering the best information on the industry where it can – locally or abroad.

above the surface, they can start eating the germinating seed below the surface.

However, seedlings are attacked only in the first four weeks after planting. As plants outgrow the seedling stage, they are seldom harmed by the isopoda.

According to Dr Tribe, the indigenous isopoda were initially thought to be responsible for the damage. Examples of the offenders responsible were sent to an overseas expert for identification and were determined to be an alien species. They are possibly of European origin, but have in the meantime acquired the status of 'global citizens'.

A common cultivation technique followed by canola producers during establishment is to spray all weeds before planting. The isopoda and slugs therefore have nothing but the sprouting canola to eat at that stage.

Dr Tribe believes that that the final word has not been spoken about whether weed control at that early stage is the right way to go.

Slugs

The financial damage to canola that is caused by slugs is increasing globally. At one stage, local producers were very concerned about the problem.

According to Dr Tribe, the fears were not completely unfounded. All three the species of slugs that cause the most damage come from Mediterranean regions. They are extremely well adapted to winter rainfall and summer drought conditions.

Adult slugs are largely soil bound, and in summer they survive at depths of up to 20 cm. Overseas research alleges that these slugs can penetrate soil up to a depth of 1 m in order to survive. However, Dr Tribe and his colleagues have determined in the Caledon area that these slugs seldom penetrate below the humus layer. As the soil dries out, however, they gather around cracks, through which penetration can occur.

The natural enemies of alien slugs did not accompany them on their migration. This leaves us with a unique problem of controlling them.

This was a challenge to Dr Tribe – an opportunity to break new ground. He grasped the opportunity with both hands.

"The three alien species should not be confused with the large, yellowish local slugs," he says. The latter appear on the scene only later in the season, when most of the slug pellets have already deteriorated or been eaten. These slugs seldom enter a canola field and prefer to survive in the surrounding fynbos.

Indigenous slugs are therefore not really affected by the existing control measures implemented by producers. Some environmental groups are concerned that these slugs can be exterminated. They allege that indigenous slugs contribute to the sustainable survival of our natural environment.

'There is a fundamental difference between the constructive control of insect pests and merely destroying them through an over-application of chemistry,' says Dr Tribe.

Traditionally, for example, a preventive approach to the control of insect pests was followed. This involved the spraying of appropriate chemicals at regular intervals. This was often done without the producer concerned first determining the extent of the problem.

According to Dr Tribe, this approach is expensive and is often a waste of money if insect numbers are low. The possibility was never considered of tolerating small numbers of insect pests because they had only a minor effect on yield and quality.

In such cases the cost of spraying is much higher than the benefit obtained from chemical control. (See **Table 1** for threshold values for controlling insects on canola, as well as the times when different pests can occur.)

Slugs, insects and other pests on canola

'In addition, the "good insects" are also killed, which sometimes leads to serious outbreaks of insect pests in general that can otherwise be controlled naturally,' Dr Tribe maintains.

The newer approach to pest control involves additional controls that reduce the dependence on chemical sprays. One such a measure involves the regular and accurate monitoring of insect numbers.

The old adage of "measuring is knowing" therefore applies here.

Chemical control should be applied only when the numbers of pest insects exceed predetermined maximum levels. This is the level at which damage caused by insect pests is equal to or higher than the cost of chemical control.

According to Dr Tribe, the control of the alien slugs as well as the isopoda requires a combined application of metaldehyde and carbaryl. Metaldehyde on its own is not as effective. Carbaryl kills the isopoda that are responsible for about 80% of the losses in seedlings. Metaldehyde controls only slugs. The first treatment is applied when the canola is established. He recommends that slug pellets be spread at a rate of 8 kg/ha on planting.

His trials have shown that this quantity was the most cost effective to protect seedlings against slugs as well as isopoda. "This quantity seems to be too small, but does work well," he reassures.

However, this method is not completely infallible. The activities of slugs as well as isopoda are sometimes greatly affected by rain and

Table 1: Threshold values for insect control on canola.

Insect	Threshold value	Identifying infestation	Remarks
Redlegged earth mite *Halotydeus* destructor Blue oat mite Penthaleus major	10 mites per 100 square centimetres. 0 - 6 weeks postemergence.	Determine the number of mites per 100 square cm (10 cm x 10 cm) around the base of plants. Repeat in 5 - 10 different places. Avoid monitoring on days with strong sunshine. Monitor on cool, cloudy days, early in the morning or late in the afternoon.	Both mites occur in mixed populations. Seed treatment with dimethoate followed by postemergence spraying based on monitoring.
Aphids *Brevicoryne brassicae*	At least 20% of plants with 25 mm or more of the stem infested with aphids.	Do regular inspections during blossom and pod stages of canola (twice a week).	Canola is very susceptible at an early stage. A few aphids in the growing point during the rosette phase can hamper the growth of canola. Use binding agent with spraying.
Lucerne flea *Sminthurus viridis*	10 holes per leaf.	Examine about 0,5 m of plant row. Look for characteristic holes in leaves. Repeat in 5 - 10 different places.	Mainly occurs after legumes or in fields adjacent to lucerne or medics.
Diamond-back moth *Plutella xylostella*	Count only worms longer than 3 - 4 mm. Middle to late blossom stage, 17 - 23 per 10 plants. Pod filling 43 - 57 per 10 plants.	Walk through the field in a circle pattern. Start 10 - 15 m from the edge of the field. Stop at intervals of 20 - 25 m. Take a plant at random and shake it into a container. Count larvae longer than 3 - 4 mm.	Rainfall of more than 5 - 8 mm in a 24-hour period will greatly reduce the number of worms.
Bollworm *Heliothis spp.*	5 - 10 worms per square metre.	Take a plant at random and shake it into a container. Sample 10 - 20 plants. Determine the infestation by determining the average plant density of the field (plants per square kilometre).	Commence spraying as soon as threshold value has been reached. Small larvae are much easier to control than large ones.

Dr Geoff Tribe.

temperatures. In fact, Dr Tribe is a proponent of further research in terms of which weather data is correlated with the occurrence and behaviour of isopoda and slugs in order to predict variations in their numbers.

He also found that there is no real difference in the effectiveness of the various brands of pesticides.

He is aware of producers who place as much as 15 kg/ha and maintain good control. He is of the opinion that this is a bit excessive, although these producers have not suffered major losses among their seedlings.

Dr Tribe and his team also conducted a trial in which slug pellets were placed in the soil together with the seed. "This method does not work," he says. "The pills have to be on the surface."

Diamond-back moth

He says that the diamond-back moth is not such a major problem in the Western Cape as in the summer rainfall areas, as these moths simply do not like water.

However, when it does rain (usually around September) and a dry spell of a few weeks follows, their numbers can literally explode. They usually attack when the canola starts flowering (September/October).

Dr Tribe maintains that the damage they do to the leaves does not really affect the yield. However it becomes a major problem when they start feeding on the pods.

Nevertheless, he feels that a preventive control programme in the Western Cape would be a waste of money. If he were a producer, he would check them regularly, but would not spray unless the numbers become unmanageable and they start feeding on the pods.

Stalk borers

Another potential problem is stalk borers, which attack the plant stems and feed on the nutrients flowing through them. This is actually a potential problem that cannot really be prevented.

Cabbage aphids

Dr Tribe regards cabbage aphids, also an alien species, as just a nuisance that is not worth the cost and effort of spraying. They usually attack at the 50% blossom stage. Only about 0,1% of a field is usually infested. Luckily their parasite, a small type of wasp, also tagged along and exercises good natural control if left undisturbed.

Article supplied by Kobus van Tonder, for the Protein Research Foundation. For more information send an email to vantonk@telkomsa.net.

Photo 4: According to a Canadian canola expert who visited South Africa, the Western Cape has plenty of potential to cultivate this oilseed successfully. However, more attention to, among other things, management is necessary to further increase yields. Photo: Dr Geoff Tribe

Photo 5: 'Preventive chemical control of pests like these alien isopoda is a waste of money most of the time,' says Dr Tribe. Such control measures should be applied only when the numbers of insect pests exceed predetermined maximum levels. Photo: Dr Geoff Tribe

Photo 6: Indigenous slugs (Oopelta polypunctata) like these are not really threatened by the existing control measures of producers, as they appear on the scene only considerably later, when the slug pellets have more or less disintegrated. Photo: Dr Geoff Tribe

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Canola diseases and control measures

On gazing at an uneven standing of young canola a producer remarked that there is a close resemblance to people: successes in later life are determined early on.

This applies to canola too. It is virtually impossible to try and compensate for poor establishment later in the season.

The good yields of the previous season, together with equally good prices and growing conditions, are responsible for optimism among producers. However, success often hides risks like short rotations.

Short rotations like wheat-canola-wheat-canola cannot be sustained in the long term because of the risk of diseases, which can cause serious losses in profitability.

Black leg, for example, which is caused by the fungus *Leptosphaeria maculans*, is a problematic disease that has caused major damage in canola in countries like Australia (and almost everywhere that canola is cultivated).

The general recommendation that canola be cultivated in the same soil only every third or fourth year hails from the period when black leg seriously damaged the Australian canola crop in the 1970s.

When it comes to proven canola predators like black leg, seedling damping-off and Sclerotinia (stem rot), producers say outright that they do not take chances. These diseases are at present still controlled well thanks to this attitude and the accompanying good management practices.

The premise is that producers should be aware of the risks that diseases pose in their respective areas and implement the recommended measures against these diseases.

Damping-off of seedlings

The damping-off of seedlings is one of the diseases that can cause major damage. A variety of organisms like *Fusarium avenaceum*, various *Pythium* species and *Rhizoctonia solani* cause this disease complex.

Seedling damping-off can occur pre or postemergence. A typical symptom is sudden wilting, followed by lodging and eventual drying of seedlings because of rotting on the soil surface. This can occur within the first four to six weeks after planting.

Between 80% and 100% of seedlings can be infected, leading to great losses. Yield losses of up to 30% have been reported overseas. In South Africa the percentage of seedling damping-off varies in the different types of soil (see **Graph 1**).

The good news is that the application of a few practices can greatly help to reduce losses due to seedling damping-off.

Avoid planting in cold and wet conditions. Such conditions delay germination and the normal growth of the seedlings. This gives the disease a chance to establish itself and spread.

The spreading of the *Pythium* species in particular is encouraged by too wet conditions. In cases where standings of seedlings have already been destroyed by this disease, new ones can be re-established very successfully. However, soil temperatures and moisture conditions must be favourable.

Another beneficial practice for preventing seedling damping-off is to plant seed at the recommended depth. Seed that is planted to deep takes longer to emerge. The fragile young seedlings are then exposed to the destructive influence of pathogens for longer.

It is a fact that seedlings from poor seed contract damping-off disease more easily. The use of seed of a proven quality is therefore recommended.

Treating canola seed with a fungicide like Cruiser OSR (active ingredients *difenconazole, fludioxonil, metalaxyl-M* and *thiamethoxam*) significantly increases the survival rate of seedlings in pathogen-infested soil (Graph 1).

Little is known of the effect of resistant cultivars and even crop rotation on the incidence and development of seedling damping-off. Nevertheless it is accepted that an integrated control strategy, including the above practices, can contribute considerably to the successful control of this disease.

According to Mr Chris Cumming, Cape expert on the chemical control of agricultural pests, the choices producers make with regard to suitable cultivars, the treatment of seed and planting practices are crucial in effectively controlling seedling damping-off and other canola diseases.

Fungal diseases

Weather conditions play a major role in controlling diseases in canola. Black leg and Sclerotinia (stem rot) are a bigger threat in higher rainfall regions. However, they are not

exclusive to these regions and above-normal rainfall in traditionally drier areas can also cause outbreaks of these diseases.

Black leg is caused by two *Leptosphaeria* species, *Leptosphaeria maculans* and *Leptosphaeria biglobosa*. The former is the more aggressive of the two. Both species have several strains. The fungus mainly survives in canola stubble that remains in the fields at the end of the growing season.

After sufficient rain at the beginning of the growing season spores are released by the stubble and carried to the young seedlings by the wind, where they attach to the seed leaves, leaves or stems and infect them.

The fungus then spreads and causes characteristic drab lesions (Phoma leave lesions) with small black spots (fructifications) that contain the asexual spores of the fungus. The fungus grows from the lesions through the petiole into the stem, where it causes stem and crown lesions later in the season.

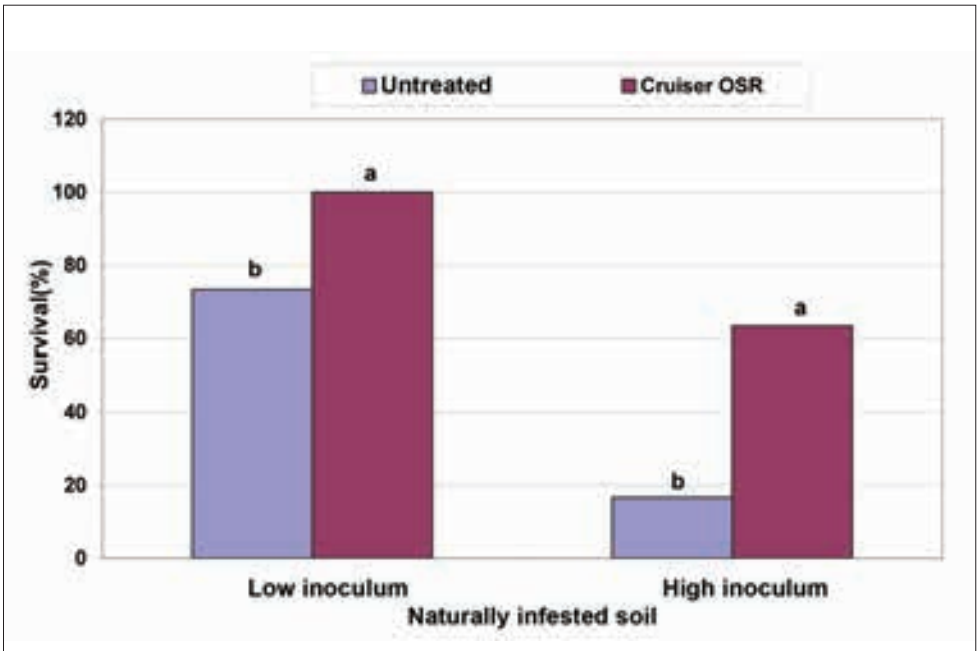
This phase is the most dangerous, as the upwards and downwards transport of water and nutrients is interrupted. This leads to a decline in seed formation.

When the stem weakens as a result of infection, the plant falls over. Spores can also spread from leave lesions to adjacent plants as a result of rain and thus cause secondary infections. Pod infection leads to infected seeds.

The following management practices can be applied:

- Plant resistant cultivars that are adapted to the environment and alternation of cultivars with different resistant genes.
- Using a crop rotation system where canola is cultivated only once every four years on the same soil.
- Canola must be planted as far as possible away from the fields in which it was cultivated in the previous year.
- Using certified seed, as the disease is seed borne.
- The host range of the fungus is limited to the cabbage family. Cabbage-like weeds like wild radish and charlock that can act as alternative hosts to the pathogen should therefore be controlled effectively.
- Second-growth canola is also infested with the fungus and should therefore be grazed or removed as soon as possible. Regrowth can then be controlled with a contact herbicide.

Graph 1: Seedling damping-off in naturally infested soil as well as the effect of treatment with Cruiser OSR on the reduction of seedling damping-off.



Values followed by the same letter are not statistically significant at the 5% level

- Canola stubble can be removed at the end of the growing season by burning, burying (tillage) or grazing it. However, these practices do not fit in with minimum or no-tillage, and should be applied only in exceptional cases.

Although the four-year rotation rule remains very important, the most recent research from overseas maintains that the distance between the stubble of the previous season and the new canola plantings is even more important to control black leg.

Controlling black leg on seedlings is very important to reduce the damage caused later by the disease. In Australia seed treatment and supraterranean spraying with fungicides have been registered. Unfortunately, no chemical treatment against black leg is currently registered in South Africa.

Sclerotinia sclerotiorum (stem rot), on the other hand, has a very wide range of hosts and also attacks lupine, soybean and sunflower, among other things. Symptoms appear only during or after flowering. However, the fungus can also infect seedlings or young plants under favourable conditions.

Warm, moist conditions promote the development of the disease. The fungus can survive in or on the soil for up to seven years. This means that crops that are attacked by the fungus should not follow each other in short rotation systems.

> *"The good yields of the previous season, together with equally good prices and growing conditions, are responsible for optimism among producers.*

The custom of planting canola after lupins in order to utilise the nitrogen left behind by the lupins can therefore cause major problems. Sclerotia often form in and on the pods. Contaminated seed can therefore transfer the disease. Use only certified seed where possible.

The most characteristic symptoms of this disease occur low on the stems of plants and later also on pods. In the case of canola light, faded spots with a greyish middle section on the stems can be seen mainly where the leaves or lateral branches are attached.

The fungus does not form spores on the affected plants. Under favourable conditions a thick bundle of white hyphae is formed, in which sclerotia can often be seen. These sclerotia land in the soil, from where they later germinate and form spores that initially contaminate the plants.

No further spores form on the contaminated plants. Hyphae growing on the soil can affect the plants, however. This explains why this disease characteristically occurs in spots. Later tillage spreads the sclerotia.

Canola diseases and control measures

Seedling damping-off during establishment causes major canola losses. An effective control measure is treating seed with a fungicide. The disease can also be controlled by avoiding establishment in cold and wet conditions. Photo: Sandra Lamprecht, ARC-Plant Protection Research Institute (Stellenbosch)

Golden fields of this popular oilseed crop in the Overberg heartland. Photo: Kobus van Tonder

Black stem is probably the most dangerous canola disease in South Africa. Here are pods that have been affected by the disease. Photo: Sandra Lamprecht, ARC-Plant Protection Research Institute (Stellenbosch)

A white, woolly growth on the canola stem is often a good indication of a Sclerotinia infestation. This is the other dangerous disease in canola that is currently controlled well thanks to the fact that most producers apply crop rotation with non-susceptible crops like small grains. Photo: Sandra Lamprecht, ARC-Plant Protection Research Institute (Stellenbosch)

The Sclerotinia fungus here formed a lesion on a cotyledon, from where it penetrates the leaf further to eventually cause crown cancer, which causes the plant to lodge and prevents a yield from being obtained. Photo: Sandra Lamprecht, ARC-Plant Protection Research Institute (Stellenbosch)

Black stem infection resulting in crown cancer, which causes these plants to lodge. Photo: Sandra Lamprecht, ARC-Plant Protection Research Institute (Stellenbosch)

Canola yields in fields like these can be increased markedly with good management of, among other things, diseases and insects. Photo: Prof. André Agenbag

Affected plants usually mature prematurely and die. This causes smaller seeds and accompanying lower yields.

Sclerotinia sclerotiorum does not attack grain crops and its strength declines if hosts are absent. The reverse also applies. The incidence of Sclerotinia stem rot often increases sharply in short rotations with susceptible crops.

Crop rotation with non-host crops like wheat, barley, oats and maize with a built-in waiting period of three to four years is therefore extremely important.

Weed control should also receive a lot of attention. The reason for this is that a high incidence of weeds encourages moisture between plants and creates more favourable conditions for the development of the disease.

At present there are no canola cultivars in use that are resistant to stem rot.

Article supplied by Kobus van Tonder, for the Protein Research Foundation. For more information send an email to vantonk@telkomsa.net.

SUBSTANCE DEPENDENCY – a huge obstacle on your path to a better emotional you

In our society addictive substances like alcohol, tobacco and even illegal drugs are widely available. People often abuse addictive substances despite the knowledge that it causes social, physical, and emotional problems as well as problems at work. The abuse of addictive substances may continue for a long period of time and result in substance dependency.

Substance dependency is often characterised by physiological dependence which refers to a person's tolerance (because of frequent use, higher doses are needed to achieve the same effect) and withdrawal (symptoms a dependent person experiences when an addictive substance is abruptly stopped after a period of heavy or prolonged use).

Factors leading to substance dependency

- Pleasure experienced or relief from tension, tiredness or anxiety.
- Examples of substance dependency/drug abuse set by family members or friends.
- Peer pressure from peers using alcohol or drugs.
- Lack of coping skills or meaningful alternatives to deal with problems.

Types of addictive substances

Addictive substances are generally divided into three major groupings:

Depressants

It slows down the activity of the central nervous system and reduces feelings of tension and anxiety, e.g. alcohol and heroin.

Stimulants

It increases the activity of the nervous system and contributes to feelings of euphoria and self-confidence, e.g. nicotine, cocaine, crystal meth (Tik) and ecstasy.

Hallucinogens

It produces sensory distortions or hallucinations including major changes in colour perception and hearing. Additional effects are relaxation, euphoria and sometimes panic. Examples are LSD and marijuana (Dagga).

Signs and symptoms of substance dependency

- Unexplained mood swings, unusual irritability and aggression.
- Absenteeism or decline in work/ school performance.

> *"Substance dependency is a disease and left untreated it will destroy your life and hurt your loved ones.*

- Changes in appearance e.g. lack of personal hygiene.
- Changes in sleeping and eating patterns.
- Dishonesty, stealing money/valuables.
- Strange smells, stains/ marks.
- Drug related paraphernalia, e.g. needles and pipes.

Strategies to overcome substance dependency

(Freely adapted from source: www.rethinkingdrinking.niaaa.nhi.gov)

- **Find alternatives**. Sobriety often means more free time. Find new ways to spend your free time such as healthy activities, hobbies and relationships.
- **Avoid "triggers"**. It's important to know what triggers you to drink or use drugs. If you know certain people or places make it difficult for you, avoid it.
- **Plan to handle urges**. When the urge hits, remind yourself why you need to change your old habits or talk things through with someone you can trust. Instead of fighting the feeling, accept it and ride it out without giving in, knowing that it will soon crest like a wave and pass.
- **Learn to say "no"**. Temptations to drink or use drugs will come, expect it. Have a polite, convincing "no thanks" ready. The faster you can say "no" the less likely you will be to give in. If you hesitate, you might start thinking of an excuse to start using again.

Seek professional help and assistance if you or a loved one suffers from alcohol or drug dependency. Substance dependency is a disease and left untreated it will destroy your life and hurt your loved ones.

Article submitted by Petra Nel from PROCARE. For more information, send an email to petra@procare.co.za or contact PROCARE at 0861 7762273 or 021 873 0532.

Grain SA interviews...
Ezekiel Nkosi

This month Jerry Mthombothi, our Nelspruit Development Co-ordinator interviewed Ezekiel Fihleni Nkosi who farms in the Luphisi area in Mpumalanga. Ezekiel farms with maize, groundnuts and Jugo beans and attributes his success to listening to advice received from his mentor.

Where and on how many hectares are you farming? What do you farm with?

I farm with maize, groundnuts and Jugo beans at Luphisi. I have 8 hectares of arable lands and during the 2013/2014 season I planted on 5 hectares which consisted of 3 hectare maize, 1 hectare groundnuts and 1 hectare Jugo beans.

What motivates/inspires you?

While growing up, my parents were farmers and seeing them earn an income from farming, motivated me to also become a farmer. By becoming a member of the Grain SA study group I have acquired many farming skills and am now even more motivated to farm and to acquire more arable lands to farm on. Earning money from the produce I sell, also inspires me to work harder.

Describe your strengths and weaknesses

Strengths: Firstly, I have acquired skills in farming with grain, which I was taught by Grain SA personnel as well as other institutions like the Department of Agriculture. I own a tractor and implements. I have contacts with personnel from Monsanto and Grain SA who assist me to get inputs easy and on time. I also assist other farmers and give them advice and I also explain how the products, especially the types of seeds and herbicides, are used.

Weaknesses: Our area, Luphisi, is near the Kruger National Park and during the summer it is very hot and temperatures can rise to 40ºC or more. Our soils are sandy and we receive between 400 mm and 450 mm rain per annum and at times we used to have drought in this area. Another weakness is that we do not have our own maize mill for milling our maize.

What was your crop yield when you started farming? What are your respective yields now?

When we started farming, we use to yield less than 1 ton maize per hectare. During the 2013/2014 planting season I have yielded more than 3 tons/ha.

What do you think was the main contributor to your progress and success?

The main contributor to my success was listening to my advisor when advised what to do. The Grain SA courses and workshops which I attended, also contributed a lot to my success as I have acquired skills and knowledge which I will use till the day I die.

What training have you received to date and what training would you still like to do?

I have attended the Introduction to Maize Production course, the Contractors course as well as the Tractor Maintenance course, all which were organised and conducted by Grain SA.

Where do you see yourself in five year's time? What would you like to achieve?

In five year's time I would like to have my own roller mill and help other farmers with milling their maize produce. I want to have more arable lands where I can plant more maize and other grains and use my own milling machine

to process my produce. I want to be a full time contractor and help other farmers to plough their arable lands and spray herbicides and insecticides for them as I have already acquired skills on how to spray and apply the correct amounts of chemicals.

What advice do you have for young aspiring farmers?

I can say that the young aspiring farmers must know that food comes from farming. The nation can be fed by farming. Without farming we will not have food and as a result we will starve. We as farmers must produce more food to feed even those who are not farming. We need to work hard before we can be successful.

Article submitted by Jerry Mthombothi, Development Co-ordinator of the Grain SA Farmer Development Programme. For more information, send an email to jerry@grainsa.co.za.

Pula Imvula's Quote of the Month

"Do what you can, where you are, with what you have."

~ Teddy Roosevelt

The Corner Post

Why does every person require a mentor?

The benefits of having a mentor are that it promotes true growth and change by helping you grow, encouraging you to grow and allowing you to identify your dreams in life.

A mentor is like a mirror to you, someone you want to follow and whose actions you can copy – a model you want to imitate. He helps you to achieve your objectives more effectively. He asks questions that you haven't even thought about. The mentor's influence on your life also affects the rest of your family and community. A mentor plays a very important role in helping you to identify God's pattern for your life.

There are a number of important questions that you have to ask yourself to understand why you need a mentor, and the mentor can then later help you with these questions.

What do you want?

What do you want to achieve in life and where do you want to be in ten years' time? A mentor plays an important role in helping you with long-term growth and development.

What price are you prepared to pay?

It does not help you to know what you want to achieve if you are not ready to do what is needed to manage this. You will have to be prepared to make sacrifices.

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How do you plan on achieving your objectives?

Reflect on and write down your plans so that your mentor can help you with this. Think about the who, what, when and where of your plans so that the mentor can help you refine them.

What type of personality do you have?

Do you like people or things, or are you a bit of a loner? What are your personal preferences? Are you a talker or a doer?

What is the easiest way for you to learn?

Do you like doing everything in practice or do you listen to stories of others telling you how to do things?

Mentor's traits

A mentor is characterised by the following traits:

- He is a **source of information**, knows things that you want to hear and understands what to do next.
- He **provides advice** on farming ways that he learnt through experience and that work.
- **He promotes specific practical skills and conduct** that help you to know how and what to do on your farm.
- He provides **feedback**. He is more than a mirror: he also provides informed comments and sees what is really important in your farming activities.
- He is a coach who teaches you how to farm so that you can win in life.
- He is a **sounding board** who helps to ask questions about your farm so that you know exactly what the right things are to do and do not make needless mistakes that cost you a lot of money.
- He is **someone you can turn to**, whom you respect and trust, and with whom you share your problems and crises.
- He **helps to devise plans** so that you can see the picture clearly and understand it. He gives practical advice.
- He fosters curiosity and helps to open doors and discover new opportunities and possibilities. He regularly asks: 'Did you see…?'

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As you can see above, relationships are the foundation of and are extremely important to good and successful mentoring.

A mentor helps you to understand that any growth and development in your life are a process that will require hard work.

'Iron Sharpens Iron' by Howard and William Hendricks was used as a basis for this article.

This month's edition of The Corner Post was authored by Pietie Uys, commercial farmer and mentor (Swellendam). For more information, send an email to pietie@swdconnect.co.za.

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