

# PULA IMVULA

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



JANUARY  
2017

## FRANS MOKOENA – our New Era Commercial Farmer of the Year

**F**rans Tshepo Mokoena (36) from Tweespruit in the Free State was announced as the 2016 Grain SA/Absa/John Deere Financial New Era Commercial Farmer of the Year at Grain SA's gala event on 14 October. Together Frans and wife, Agnes, farms on 2 200 hectares – Frans is in charge of the crops, beef cattle and sheep and Agnes focusses mainly on the egg production and administrative tasks.

Although this productive and business-minded farmer has had to face many challenges in his life, it has not prevented him from becoming a top farmer. With not enough funds to complete his schooling, he had to leave school after completing grade 6 and began helping his father with the daily farming activities. By the age of 21 he had lost both his parents and found himself solely responsible for the farm. He carried on the way his father taught him – by living with only the basics and saving money to plough back into the farm.

Frans joined the Grain SA Farmer Development Programme in 2006 and teamed up with Johan Kriel. This partnership helped him develop as a farmer. 'I am where I am

today, thanks to the knowledge I obtained through Grain SA,' he said in an interview. There are still challenges he has to face with not having suitable access to production finance, climate change and the high cost of inputs, but this hard-working farmer will not let anything dampen his excitement about being part of the future of agriculture in South Africa.



Frans Mokoena proudly accepts the title of 2016 Grain SA/Absa/John Deere Financial New Era Commercial Farmer of the Year.

Grain SA magazine for  
developing farmers

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Article submitted by Louise Kunz, Pula Imvula contributor. For more information, send an email to [louise@infoworks.biz](mailto:louise@infoworks.biz).





## NKGONO JANE SAYS...

It is the New Year – may it be a happy and productive year for you all. I truly hope that you have all had good rains and that your crops are looking good. Good agricultural practices go a long way to ensuring the crop, but without rain we are not able to prosper.

If South Africa is to have a good maize harvest, the prices are likely to fall. It is important that you think about the marketing of your crop. Having a high yield is good but you also want to achieve a good price for the product. If you are uncertain about marketing, it will be good to seek advice.

January is often a very hot month and we trust that the maize will not be negatively affected by this. You need to keep scouting for stalk borer and keep your eye on the weeds. You might need to spray the weeds again so as to protect your crop until the harvesting time. Weeds remain a serious threat to our crops and we should try to prevent the weeds from making seed – the seeds that fall into the field this year will germinate next year. Early control of weeds is crucial to success.

The training courses will be starting again in February. Gaining knowledge is empowering and you will benefit enormously by attending the training courses. Over the past number of years, we have developed over 34 different training courses. They might not all be relevant to you, but some will be good for you. If you are interested then you can contact your development co-ordinator (his/her contact details are contained in the Pula Imvula).

We hope to be able to encourage the younger people to become interested in agriculture as a career. We appeal to you to involve your children in the field activities – but not as a punishment – rather an opportunity to use land to produce food and generate an income.

May you and your families be blessed in this New Year!

# May 2017 be the beginning of a GOOD CROP SEASON

Following the extreme dry season of 2016, every farmer welcomes the good summer rain and great crops in the Western Cape with an open heart. Despite the fact that it does not rain money or grass, we as grain farmers are so thankful. Once again God showed us that there is a beginning and an end to all things. Our hope is for 2017 to be the beginning of a good crop season.

While I was working for the grain processing sector, one of the legends of the poultry industry, taught me that in time of plenty, your focus as manager should be on cost cutting. Plenty does not mean you can waste money. A bigger costs base makes a difficult year in the future even more difficult.

You need to evaluate all your relationships with your suppliers. We have seen some suppliers make big contributions and concessions to farmers during the drought. These are the input suppliers that are here for the long haul.

I also recommend that once your crops are planted or harvested, you read something new to improve your productivity on your farm. I am very excited about the prospects of new solutions through the research projects Grain SA is currently involved with. As farmers we always need to look for new improvements and Grain SA makes it our business to assist you with that. Innovation and productivity remain the key to sustainable production.

Farmers find it difficult to plan properly to go on holiday as they are attached to nature and seasons. It was also like that at the time when Jesus was born, the shepherds were still out in the field looking after their flock while most people were travelling to their home towns to be counted in the census. We appreciate



your commitment to work the land and produce food for our nation, whilst most are having a holiday.

Grain SA would like to wish you a great recovery in 2017 following a very tough 2016. Let's do our utmost best to make use of the opportunities given by God in the New Year. I also want to remind you to seed the good seed in the hearts of your loved ones during these days. Sit down with them and ask them about their dreams for the future and encourage them to hang in there in difficult times. This is what we have learnt from the past season.

Grain SA wishes you a productive and prosperous season in 2017.

**Article submitted by Jannie de Villiers, CEO of Grain SA. For more information, send an email to [jannie@grainsa.co.za](mailto:jannie@grainsa.co.za).**





# KNOWLEDGE IS POWER!

## Maize production in uncertain times

**T**hese past few seasons of drought, characterised by high temperatures and low rainfall, have created much uncertainty in the hearts of farmers. 2016 saw many hectares left unplanted as we endured one of the worst droughts in a hundred years.

Some rains eventually fell in the western region early in the year and January saw a previously unheard of flurry of maize planting. It was surely a miracle that this crop, planted so very late, actually yielded surprisingly better than maize which had been planted at the optimum time. We were fortunate that the frosts stayed away allowing the plants enough time to mature. Nonetheless, I don't think I'm the only one who is praying that 2017 sees the seasonal weather patterns return normal!

Let's not be too unrealistic though. South Africa is a dry country and many of us are planting dryland maize crops in regions which historically face short periods of drought within a growing season. Generally speaking, January is known as the "stress month" for maize plants. It is then that we often have a wide-spread mid-summer heat wave or drought. Importantly, this normally occurs when the maize is at a critical stage of development i.e. pre-tasselling. Evaporation and evapo-transpiration are at their peak at this time too. Whatever way you look at it, January is crunch time!

January is a tell-tale month too. Because this is exactly when our farming practices are put to the test! The coping capacity of plants under stress tells a story. How efficient has our moisture conservation been? Was our weed control up to standard? How well we have performed these critical tasks will determine how well our maize crop withstands the onslaught of January's high temperatures and dry conditions. And the bad news is...unfortunately there is little mercy for a disorganised farmer in January! There is no time to spring into action to remedy the problem – crisis management just doesn't work in maize production! A severe weed problem, or a poorly managed plough pan which should have been ripped before planting, cannot be rectified while the plants are growing.

**So, how do we prepare for a typical January when we are planning to plant a maize crop?**

### Read, listen, learn

Weather patterns are unpredictable and variable BUT with the technology available these days we can get a good idea as early as October as to what to anticipate weather wise. Farmers need to determine whether predictions are for a normal, abnormally dry (El Niño) or abnormally wet (La Niña) season ahead. This is an important source of information for our decision making as we approach the season.

### Seed cultivars

We have the opportunity these days to improve our yields simply by carefully selecting which cultivar to plant; and knowing what we can anticipate in the season ahead gives us more power to choose. Do we want a short or a long grower? Should we select a variety known to be better suited to wetter or drier conditions? Technology has changed the seed production industry dramatically which gives us many more options.

### Plant population

Knowing what weather conditions we can anticipate means we can make educated choices about the density of the plant population. The ARC guides for maize production follow:



**Incorrect practices that were followed versus Photo 2 (on page 4), where the correct practices were followed.**

### ARC guidelines for choosing row width

Wide rows (1,5 m - 2,1 m)	Narrow rows (0,91 m - 1,0 m)
Low and medium yield target	Medium and high yield target
Low and medium rainfall	Medium and high rainfall
Wind erosion problems	Water and sloping contours
Weed problem: Weeds controlled chemically	Good weed control with complete spraying
Strip tillage only in rows	Total tillage

### ARC guidelines for a realistic plant population

Yield potential (t/ha)	Cooler areas	Temperate areas	Warmer areas
Dryland			
2 (t/ha)	16 000	12 000	10 000
3 (t/ha)	19 000	16 000	14 000
4 (t/ha)	25 000	21 000	19 000
5 (t/ha)	31 000	26 000	24 000
6 (t/ha)	37 000	31 000	28 000
7 (t/ha)	43 000	36 000	

## Knowledge is power Maize production in uncertain times

“*The coping capacity of plants under stress tells a story. How efficient has our moisture conservation been? Was our weed control up to standard? How well we have performed these critical tasks will determine how well our maize crop withstands the onslaught of January’s high temperatures and dry conditions.*”

### Time of planting

Planting begins when there is enough soil moisture and the temperature of the soil is suitable for the seed to germinate in. However, it is also important to consider the life cycle of the maize plant. You don’t want your plants which are at their most heat and water sensitive, to collide with the midsummer stress.

### Fertilisation

Fertiliser application is done according to your own yield targets. This will be guided by your anticipation of rainfall for the season.

### Cultivation

This is preferably done in the early stages of the maize plant’s growth. It is not advisable to disturb the soil or expose roots to high temperatures when the plant is maturing. If you have to control weeds in January, it is advisable to rather spray a herbicide than to do any mechanical cultivation which will expose your soil, release precious moisture and risk damaging or exposing the new roots.

### Herbicides

Certain inputs should not be compromised on, **especially** herbicides. Weed control is the biggest determining factor for a successful yield. It is not wise to take short cuts in any way with weed control strategies. Too many farmers make the mistake of thinking they can use less herbicide, either by skipping an application or by diluting the spray and spraying too low concentrations. This is a problem as the weeds survive and build

up a resistance to chemicals – a particular problem with glyphosate sprays, like Roundup.

It cannot be stressed enough how important it is to apply timeous total cover weed control **after your last cultivation**. The guideline would be when you can safely traverse the field before the maize plants grow too high. This final application of herbicide should keep the field clean and weed free so there is no competition for the plants during the critical period. Another point to note is that if the spraying of the herbicides is left too late and conditions have already become too hot and dry, the chemicals will not be as effective.

### Reference

du Plessis, J. 2003. *Maize production*. Potchefstroom, ARC-Grain Crops Institute

**Article submitted by Jenny Mathews, Pula Imvula contributor. For more information, send an email to [jenjonmat@gmail.com](mailto:jenjonmat@gmail.com).**







# All you need to know about membership

**G**rain SA is an autonomous industry organisation that acts in the interest of the grain producer in South Africa. Membership is subject to a voluntary commodity levy that is approved during the annual Congress.

Should more than one producer be involved on the same farm, they can obtain membership as linked members. Linked members have the same member benefits as a normal member, provided the fees are paid-up for all the members.

## How do I become a member of Grain SA?

Any producer who produces grain may obtain membership by completing the authorisation form available either from Grain SA's office or on the website. After receiving the authorisation form, Grain SA forwards it to the collection agent, where the delivery of grain is to take place. With the form you, as producer, therefore authorise the relevant agent to deduct the levy from your account and pay it over to Grain SA. Upon receipt of the authorisation form, you are registered on Grain SA's database.

## What does it mean to be paid-up?

Full membership comprises a minimum payment of R1 000 (plus VAT: R1 140) and needs to be calculated annually per tons delivered. The authorisation stays valid until Grain SA receives written notice to cancel the authorisation.

Example 1: If you produce 70 tons of maize, it is  $70 \text{ t} \times \text{R}2,50 = \text{R}175$ . This means that you must then pay R965 extra to reach R1 140 to be a full member.

Example 2: If you produce 100 tons of soybeans, it is  $100 \text{ t} \times \text{R}5,00 = \text{R}500$ . This means that you must then pay R640 extra to reach R1 140 to be a full member.

The financial year stretches from 1 March to 28 February of any given year.

Paid-up members can attend the Grain SA Congress as voting delegates and also qualify for free entry to Grain SA's NAMPO Harvest Day. The commodity levy (as approved at Congress 2016) is reflected in **Table 1**.

## How is the levy collected?

Grain SA entered into agreements with agribusinesses and grain off-takers who provide support in recovering levies on behalf of Grain SA. However, a lot of grain is currently being loaded directly at the farms. Therefore it remains the producer's responsibility to pay his levy to Grain SA in order to remain a paid-up member.

If a member delivers his grain at one of the registered collection agents, it remains the responsibility of the member/producer to consent to the deduction of the levy.

If you as producer prefer to pay your levy for tons delivered directly to Grain SA, the proof of payment as well as the details of the type of crop must be sent to Patricia Mahlatsi via email at [patricia@grainsa.co.za](mailto:patricia@grainsa.co.za), or faxed to 086 509 7173. Patricia's contact number is 012 816 8035. It is very important to also include your VAT number (should you have one). Grain SA will then issue you with an invoice.

## Account details

Grain SA  
ABSA Bank  
Account number: 790 810 007  
Branch code: 632 005

**Table 1: Grain SA levy.**

Crop	Levy per ton
Maize	R2,50
Soybeans	R5,00
Sunflower	R5,00
Sorghum	R2,50
Groundnuts	R10,00
Wheat	R3,00
Canola	R4,00
Barley	R3,00
All other grains	R3,00

All levies exclude VAT

## Communication

Member communication is vital and the accuracy of the Grain SA database is therefore important. If you complete the authorisation form, your contact information can be updated – be it email address or telephone numbers – ensuring that every producer receives the relevant Grain SA communication.

Communication with members occurs in the following ways:

- Market information is sent to members daily via email.
- SA Graan/Grain (supplying information on current affairs and industry information) is mailed to members monthly.
- Electronic letters are sent to members fortnightly. SMS messages also form an integral part of communication with members. It is therefore important for the organisation to have your correct cell phone number.
- Relevant information and events can also be found on Facebook ([www.facebook.com/GrainSA](http://www.facebook.com/GrainSA)) and Twitter (@GrainSA).
- Visit Grain SA's website, [www.grainsa.co.za](http://www.grainsa.co.za), for more information.

Ensure your own peace of mind and become a member of Grain SA. Call Patricia Mahlatsi (086 004 7246) or send an email to her at [patricia@grainsa.co.za](mailto:patricia@grainsa.co.za) or to Elray Stuurman ([elray.stuurman@grainsa.co.za](mailto:elray.stuurman@grainsa.co.za)) for any enquiries about your levy. 🌽

## Study group membership

*As the farmer development programme has many small farmer members, we have a special type of membership – study group membership – for these farmers. To be a study group member requires an annual payment of R30.*

Article submitted by Dirk Kotzé and Toit Wessels, Member Marketing and Communication Officers, Grain SA. For more information, send an email to [dirk@grainsa.co.za](mailto:dirk@grainsa.co.za) or [toit@grainsa.co.za](mailto:toit@grainsa.co.za).



# BEES ARE VIPs (very important pollinators of sunflowers)



There has been a lot of talk on the decline in bee numbers globally. We read about it in magazines and newspapers and we see it on television documentaries and the news, but do we really grasp the seriousness of this issue?

This will have a major impact on our agriculture industry and we as farmers will suffer the most. This article will outline the importance of bees and the role that they play in agriculture, especially when it comes to the pollination of our sunflower crops.

## What is pollination?

Firstly, let us get an understanding of what pollination is. Pollination is the transfer of pollen from the male part of the plant to the female part which allows for the reproduction of fruit and seed. In many instances pollen is also transferred from individual male plants to individual female plants called cross-pollination, common in planted crops.

Insects such as flies, wasps, butterflies and particularly bees are the carriers of this pollen. As they move from one plant to another this pollen is transferred allowing for reproduction. If this process does not take place, then no plant reproduction would occur and food production would cease. This is why it is crucial that we conserve our bees.

## The role that bees play

The role that bees play in this pollination process is huge, but why are their global numbers declining? There is much debate surrounding the reason for the decline in bee numbers. Reasons range from the use of pesticides and chemicals to increases in radiation levels as a result of growing numbers of cell phones and wireless communication towers.

There are many people who actually believe that it is the farmers who are partly responsible for their disappearance. We as farmers have a direct role to play in conserving and encouraging the bees on our farms, we cannot afford to be a part of the problem.

*“It is our responsibility as farmers to be custodians of nature and all that is within it.”*





“

*Sunflowers perform well when there is good pollination. To make sure that this is achieved many farmers hire bee hives from beekeepers to place in their sunflower lands which ensure their crop is well pollinated.*

Another factor contributing to losses in bee numbers is the destruction of their natural habitats and the increase in human population numbers. When humans move into an area the bee hives get removed as we often see bees as a threat.

In 2010 the municipality of Barberton, Mpumalanga ordered the killing of 900 hives of bees. Dr Gerhard Verdoorn, director of The Griffon Poison Information Centre said this was not necessary as the bees could have been removed and relocated rather. He also highlighted problems arising from the misapplication of pesticides as honeybees are being killed unnecessarily with pesticides. This is problematic as these insects pollinate plants and allow fertilisation and reproduction to take place. His advice is that if bees are in an area where they do not threaten people or animals they should be left alone as they are important for agriculture as well as the natural vegetation.

However, should they be a threat, it is better to have professional beekeepers move them rather than kill the bee colonies with poison. We need to start seeing bees as a valued asset rather than a threat if we want to start seeing a change in these global trends.

## The use of bees to pollinate sunflowers

Sunflower is the third largest grain crop produced in South Africa and is a highly valuable commodity for the consumer market. Sunflower

is primarily used for the manufacturing of sunflower oil for human consumption and oil cake for animal feed.

South Africa produces about 700 000 tons of sunflower annually. In order to achieve good yields, the farmer needs to take good care of his crop. This means implementing correct chemical weed and pest control as well as good fertiliser application. These are all well-known principles, but what farmers are realising more and more is the importance of good pollination in achieving better yields.

Sunflowers perform well when there is good pollination. To make sure that this is achieved many farmers hire bee hives from beekeepers to place in their sunflower lands which ensure their crop is well pollinated. In past decades this may not have been necessary due to more bees being present to perform their task, but today this is becoming common practice and has evolved into good business for beekeepers. If we can conserve the bees in the natural environment and strive to increase their numbers again, then perhaps farmers will be able to save on the expense of hiring bees.

## What can farmers do to protect the bee population?

So, the question is asked, what can we as farmers and home owners do to mitigate this natural disaster and protect the bee populations?

When a swarm of bees enters our living environment, the first instinctive action is usually to destroy the swarm with little consideration of what impact it will have on us. Rather than killing the bees by fumigation and use of pesticides, we should take heed of Dr Gerhard Verdoorn's advice; it would be better if we moved the swarm or made the living condition surrounding their hive unpleasant for the bees so that they would remove themselves.

There are many experts such as professional beekeepers who have the knowledge and equipment to re-locate bees. Most of them would be happy to move the hive if requested to do so. If you are unable to get hold of such an expert the next option would be to smoke the bees out of the area. This can be done by burning green matter such as green leaves, near the hive which will create thick smoke and therefore encourage the hive to move on.



*As they move from one plant to another this pollen is transferred allowing for reproduction. If this process does not take place, then no plant reproduction would occur and food production would cease. This is why it is crucial that we conserve our bees.*

Please take note: It is VERY important to be careful when doing this! Keep well clear of the area and make sure that no children are playing in the surrounding area.

As farmers it is also important to use pesticides which are 'bee friendly'. Enquire from your local chemical representative regarding the best options. Always be considerate of nature when using any chemicals in your farming operations. It is our responsibility as farmers to be custodians of nature and all that is within it. In nature everything is connected and when we remove one piece from the puzzle there will be big consequences down the line.

Always remember that without bees many of our crops go un-pollinated. This is the last thing that we want, especially in a world where the demand for food is continually growing.

**Article submitted by Gavin Mathews, Bachelor in Environmental Management. For more information, send an email to [gavmat@gmail.com](mailto:gavmat@gmail.com).**



# Control of bollworm in soybeans

The African bollworm, or referred to as *Helicoverpa armigera* as its scientific name of the insect order Lepidoptera (butterflies) and the family of Noctuidae or owl moths is a major pest of soybeans and other crops.

It is also hosted by field bean, cotton, maize, peas, peppers, sorghum and tomato plants. This bollworm occurs in every African country and on other continents.

## Damage caused to plants

A high infestation in a soybean land can have devastating effects on a perfectly planted crop. The damage occurring in any season will depend on the planting dates and the early flight patterns and time of the first moth flights. Farmers should be on the lookout for any damage after ten days from planting in any particular block and keep in mind that the onset of an infestation will differ from year to year.

*The whole life cycle is usually completed in 25 days to 60 days depending on the prevailing temperatures.*

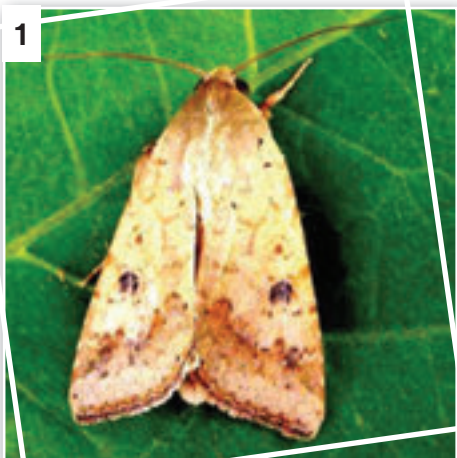
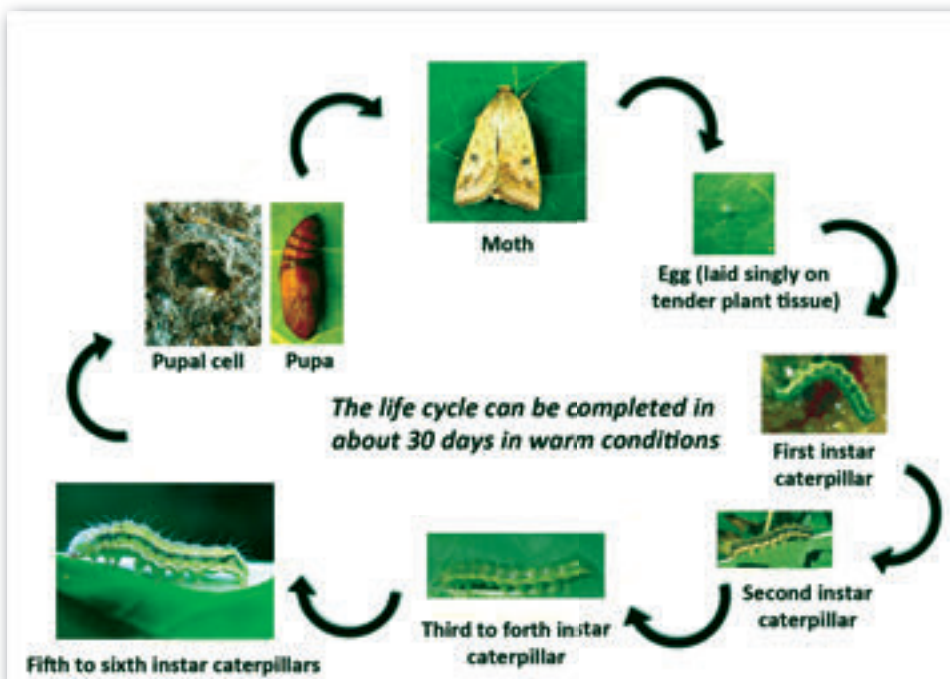


Photo 1 and 2: The adult moth.

Caterpillars feed on leaves, buds, growing points, flowers and fruit. It can thus occur in the vegetative or plant growth stage as well as at the flowering and fruiting or seed set stages. The resulting leaf damage reduces the leaf area that can photosynthesise plant nutrients and can result in high losses of grain production if not controlled. The small worms bore clean circular holes through leaves and pods. The waste droppings are placed away from the damaged plant components and can be difficult to see on or under the plant. Once they burrow deep into the pods they are difficult to control by insecticides.

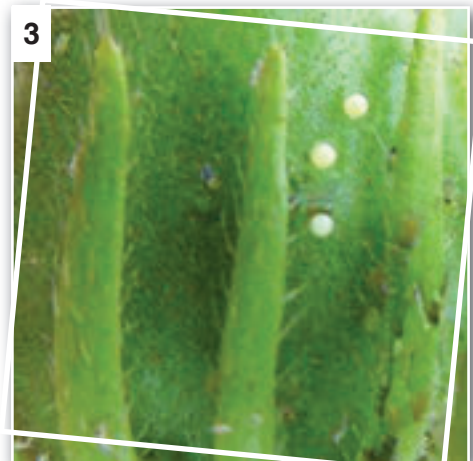
## The life cycle

The adult moth is a fleshy, yellowish brown with a dark speck, greyish irregular lines and a black kidney-shaped mark on the forewings (Photo 1 and 2). The hind wings are whitish with a black patch along the outer margin. The moths are about 14 mm to 18 mm long with a wingspan of 35 mm to 40 mm. The moths which are relatively strong fliers are widely dispersed in the growing areas and can also be carried by strong winds into new areas where soybeans are grown. The moths are strongly attracted to plants that make honeydew or nectar in the flowers.

The moths lay large number of eggs and the life cycle may be completed in a short time under warm conditions.

Eggs hatch in three to five days. The eggs are tiny being about 0,50 mm in diameter, round and yellowish-white in colour (Photo 3). They darken before hatching as the larva grows inside the egg.

The larval stage which includes the caterpillar stage (Photo 4), lasts from 17 days to 35 days.



The eggs are about 0,50 mm in diameter.





Young caterpillars are generally yellowish white to reddish brown. They have a dark brown head and several rows of black bumps with short hairs along their backs which gives them a spotted appearance. Older caterpillars vary in colour from almost black, brown or green to pale yellow with dark grey yellow stripes along the sides of the body.

The fully grown caterpillars drop from the plant and burrow into the soil to start the pupation phase.

The pupal stage, in the soil, lasts for between 17 days and 20 days. The pupa is shiny brown, about 16 mm long, with a smooth surface with two short parallel spines at the posterior tip (Photo 5).

The whole life cycle is usually completed in 25 days to 60 days depending on the prevailing temperatures. The moths then emerge from the pupae and fly to start another life cycle in the season.

## Monitoring and control of the problem

### Biological and chemical control

The bollworm caterpillars can be controlled naturally by various wasp predators and fungus infections. The diseased larva can be observed in the plant canopy which can have an ecologically balanced micro climate in ideal conditions. It is however quite rare that chemical control will not be required and can be the most effective way of properly controlling the problem.

It is extremely important to walk through your lands to look for the moths. They can be observed by disturbing the plants during the day as they fly off. Farmers can see the woven cocoons, within the leaf canopy, that are spun by the mature caterpillars. The curled up leaf with the spun cocoon can be easily observed.

This can be at a very late stage of infection however. Control measures should have already been implemented!

### The timing and application of chemicals

Soybean plants can withstand up to 35% foliage loss up to the blooming period. This can be measured by collecting a representative number of leaves from plants at random and assessing the percentage damage on each leaf. The total average damage at any one stage can then be calculated. However, during blooming and during pod fill even 20% leaf damage will result in a yield loss.

As a guideline 25 or more larva of 12 mm in length per metre of row will cause a 35% average defoliation. It is generally accepted that chemical control by spraying will be commercially viable when this level of damage is experienced. The problem is that damage escalates rapidly from 20% to 35%. It seems prudent to immediately initiate spraying at the 20% leaf damage stage or when 25 larva or more can be found per metre of row.

### Chemicals and spraying

It is being found worldwide that the use of pyrethroid insecticides has become ineffective with a control of three out ten applications being effective. The use of pyrethroids alone, in the Free State during the last few seasons, as the only chemical control measure produced very poor results.

The recommended control measures are to spray a combination of pyrethroid and diamide based insecticides.

A possible effective combination would be a pyrethroid such as lambda cyhalothrin (Kartae) at 50 g/ha together with methomyl applied at 100 ml/ha in a mix of between 300 litres/ha and



*The caterpillar stage.*



*The pupa is shiny brown and about 16 mm long.*

500 litres/ha. Using water volumes below this simply won't cover the leaf and stalk to achieve good results. It is very important to spray at a pressure of between 2,5 to 3 bars to ensure that leaves are shaken enough by the spray to expose the caterpillars protected within the leaves. It is virtually impossible to control them when they have penetrated the pods. It is well worth doing as an insurance against any further escalation of damage exceeding 20% leaf damage. Remember that it is important to include a sticker such as orosorb to ensure that the chemicals attach to the plant leaves and in turn have the best chance of killing the worm larvae.

The mixed spray will have a residual effect of about three weeks to be able to control any infestations within this period.

Always consult your chemical supplier or consultant for the best practical advice and to check that the recommended mixture is best suited to the stage of soybeans being sprayed.

## Conclusion

It is really critical that the farmer scouts for moths and caterpillars in an intensive and regular manner in order to be able to detect and control a potentially dangerous infestation of bollworm as early as possible. 🍷

*Article submitted by a retired farmer.*



*Bollworm damage.*

# Grain SA interviews...

## Senokwane Monnapula Matthews



**S**enokwane Matthews farms with maize and barley under irrigation in Pudimoe, which is situated in the Dr Ruth Segomotsi Mompati District Municipality in the North West Province. This motivated farmer believes he is able to reach commercial status in the near future as he is not only experienced enough but has also received the necessary training to achieve his goal.

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

I farm on 10 ha at Reatthoma co-operation which is situated in Pudimoe. I currently plant maize for summer crops and barley for winter crops.

### What motivates/inspires you?

Farming is interesting and challenging, and what motivates me the most is that after every

six months I receive a profit. This is important as I see how things are done and where the profit comes from.

### Describe your strengths and weaknesses

**Strengths:** I use pivots to irrigate, so if there is no rain I can survive.

**Weaknesses:** Not owning my own implements is definitely a weakness.

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

When I started farming my yield for maize was 12 t/ha - 13 t/ha and for barley my yields were 6 t/ha - 7 t/ha. Now my respective yields for maize are between 8 t/ha - 10 t/ha and for barley my yields are 5 t/ha - 6 t/ha. My yields are drop-

ping and this may generally be due to the fact that we have started experiencing water supply issues.

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

When I started farming, the soil was in a good condition as I was practicing crop rotation and this is beneficial to the soil – rejuvenated soil results in an increase in yield. The various crops deposit various nutrients and this also increases the yield.

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

I have completed the following courses: Introduction to Wheat Under Irrigation, Introduction to Barley Under Irrigation, Tractor and Implement Maintenance, Skills Development (welding) and Farming for Profit.

### Where do you see yourself in five years time? What would you like to achieve?

In the future I would like to own a farm with my own implements, even if I just own some of the implements. I would really like to be at a level of commercial farming. I believe that this is possible as I have the experience as well as the training to reach commercial status. Currently I want to improve my production skills and show that I can really do better if I have time and more training.

### What advice do you have for young aspiring farmers?

We are now experiencing problems because there is no rain and we depend mostly on irrigation for farming. My advice to young farmers is that farming is very risky – if you want to be a farmer you must be prepared to be a hard worker. It takes time for you to reach a stage of high profit but working hard will lead you there. 🌱

Article submitted by Julius Motsoeneng, Provincial co-ordinator Taung, North West Province. For more information, send an email to [julius@grainsa.co.za](mailto:julius@grainsa.co.za).





# Will my farm survive?

## Follow these 11 steps to know

Our farmers are experiencing challenges with regards to their farming businesses all the time. The climate affects our businesses, hopefully by the time you read this article the drought will be something of the past.

We experience political insecurity, marketing challenges and a cost-price squeeze to name but a few challenges. As farmers we must face

“If you do not measure, you cannot manage properly.”

the facts and ask our self the question: ‘Will my farm survive?’ continuously.

Here are a few other steps we must attend to, to ensure our farming businesses remains viable and sustainable. These steps are apart from all the other work such as managing your production, marketing, human resources, and so forth.

- Do you keep proper and useful records? It is an undisputed fact that one cannot manage without information – you cannot manage if you do not measure. Thus, information of actual events needs to be gathered, measured and recorded both in terms of physical quantities but also the finances involved. The events must be measured and recorded in a format that will make it easy for the farmer to use, whether you do it manually or use a

computerised system. In farming this process is known as record-keeping.

- Secondly do you farm for long-term sustainable profitability? Note, we do say to farm for maximum profits. If you do not farm with the aim of making a long-term sustainable profit your business will only be a hobby and you will not survive for many years. To measure your profitability you need a proper and correct income statement which you cannot provide if you do not apply proper financial record-keeping.
- Do you have more assets than liabilities? The total assets must be more than your liabilities (debt) with a ratio of at least 2:1 to be safe. To determine this ratio you need proper financial statements and specifically a realistic or true balance sheet, just as you

### Pula Invula's Quote of the Month

*Challenges are what make life interesting and overcoming them is what makes life meaningful.*

~ Joshua J. Marine

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## Will my farm survive?

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need an income statement. In practice this step means, do not buy too much with borrowed money.

- Do you manage your cash properly and remember not to spend tomorrow's money today except if it is absolutely for production purposes? Also ask yourself the question whether you can service all debt and pay all cash expenses, such as wages, every month. The only way to answer this question is to compile a cash-flow statement. To be able to do this you need dependable information, hence proper record-keeping.
- Do you separate your business 'must haves' from 'nice to haves'? This might sound obvious, but is worth thinking carefully about where you cut costs in tough times and where you keep spending. Spending on 'must haves' should include the assets needed to produce products of high quality, marketing, and training of employees. These are all areas which will allow your business to survive and grow.
- On the other hand, some of the following could be considered 'nice to haves' in the current economic climate: Replacing vehicles, IT equipment and upgrading of phones.
- The best way to control these expenditures is by means of a proper business plan (budget) which will allow you to scrutinise and minimise costs.
- Do you improve your efficiency, or one could say the productivity, of each enterprise by applying efficiency measures – 'something per something else' – tons maize produced per hectare, kilometres travelled per a litre of fuel, kilogram wool produced per ewe, and so forth? This is important because to overcome the cost-prize squeeze, income must be increased by producing more per hectare, and so forth and controlling your costs.
- Do you apply conservation farming practices? Apply conservation farming prac-

tises. Over a period of time the soil fertility will increase resulting in higher production. Conservation farming can be described as a sustainable profitable farming system that reduces soil disturbance through minimum tillage and rotating of crops with the purpose of leaving as much as possible plant material (mulch) on the lands to increase water infiltration.

- What about new technology? Always consider new techniques and equipment that could be helpful in achieving better production. However, think very carefully before investing in the latest technology. It is important to stay up to date with the latest technology, but you must always be able to afford the purchases of new technology.
- Investigate to diversify your business into a few enterprises aiming to increase your income and manage risks. One cannot emphasise the importance to diversify enough. But again you must consider all aspects carefully. However, the advantages of diversifying – improved cash-flow, spreading of risks, increasing of profit – outscore the disadvantages.

Attend to these steps diligently and your business could survive but the vice versa is also true and as stated quite a number of times – if you do not measure, you cannot manage properly. 🍌

## Follow these 11 steps to know

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