



GRAIN SA MAGAZINE FOR DEVELOPING FARMERS



### PULA IMVULA

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GROWING FOOD, PEOPLE AND PROSPERITY



### **A WORD FROM...** Dr Sandile Ngcamphalala

IGHT MONTHS INTO THE JOB AS THE NEW FARMER DEVELOPMENT LEAD AT GRAIN SA, THIS IS MY FIRST PLANTING SEASON SUPPORT-ING GRAIN FARMERS. I LOOK FORWARD TO THE MANY SUCCESS STORIES AND MEMORIES AS WE GROW AND LEARN TOGETHER.

We are coming out of a great season for most of the farmers in our programme but also many challenges at personal level with so many farmers directly affected by the COVID-19 pandemic. The impact goes further into some of the most unprecedented price hikes on inputs. We've see fertiliser prices for example hike to over 40% year on year between the 2020 and 2021 production seasons. But there is always hope as farmers continue to make effective adaptive plans.

As Grain SA we've committed to go all the way to raise funding and provide technical and enterprise-wide support and mentorship for our developing farmer members. Our vision and strategy is to create sustainable commercial enterprises. Many of the advanced farmers have bought into this vision and are meeting us halfway on loan repayments and ensuring continuous funding and the sustainability of the programme.

There are however farmers that have simply disregarded the call showing absolutely no interest to honour their responsibility for repaying the revolving funds expended to them. As a result, we've removed a sizable number of farmers from the programme.

We have committed to support sustainable growth and we can't achieve that if we don't have succession plans in place (that is bringing in a younger member of the family into the business) at least for all the farming enterprises we support. While we look at succession, we are also keen to identify and support women farmers.

Indeed different funders have a different focus and interest overall. Our task is to identify partners that are well aligned. The grant system for example is crippling our efforts to creating responsible agribusiness men and women. This is a team effort – we will continue to pursue funding opportunities on your behalf, but we expect you to farm and farm well. I wish us all a great season.

### Soybean harvesting: Time is money

O INCREASE PROFIT AND REDUCE RISK, CONSIDER HARVESTING SOYBEANS EARLIER. THE CULTIVA-TION OF SOYBEANS IS KNOWN FOR ITS RISKS. ONE OF THE BIGGEST RISKS IS DURING THE TIME AND PROCESS OF HARVESTING. SHATTER LOSSES DUE TO BRITTLE PODS INCREASE AS MOISTURE LEVELS OF POTS AND GRAIN DROPS. FOR THIS REASON, TIMELY HAR-VEST IS IMPORTANT.

Plant growth and not only losses due to the brittle pods contribute to losses. Some plants and cultivars are known to produce its pods very low on the ground and if the harvester table cannot harvest low enough there are many soybeans left behind. Therefore, it is important to plant the correct cultivar and use the correct harvester header.

#### **REACHING PODS LOW ON THE GROUND**

Producers can easily overestimate the capacity of the harvesters, with the result that a large portion of the crop is lost. Harvesting close enough to the ground is easier said than done. Large stones in a field and very uneven fields can cause expensive damage to a harvester. Make sure that your harvester is insured for stone damage.

Low-growing and low-podded crops such as soybeans present its own challenges at harvesting, but with flex header or flexi draper on the front of your harvester you'll have the best tool for the task. The flexi header will be able to follow the soil contours. Some headers are



The costs and field capacities of a 240 kW harvester.

Harvester cost per hour	Harvester	Harvester	Harvester				
Total fixed cost	R2 209,82	R2 209,82	R2 209,82				
Repair and maintenance cost	R523,55	R523,55	R523,55				
Fuel cost @ R14,77/litre	R638,06	R638,06	R638,06				
Total variable cost	R1 161,61	R1 161,61	R1 161,61				
Total harvester cost per hour	R3 371,43	R3 371,43	R3 371,43				
Harvester header cost per hour							
	Maize header	Wheat/soya flex header	Sunflower header				
Header used	8 row 0,91 m	9 m	8,1 m				
Average new header price	R1 148 300	R829 089	R755 600				
Total fixed cost	R484,67	R349,94	R318,92				
Repair and maintenance cost	R114,83	R82,91	R75,56				
Total variable cost	R114,83	R82,91	R75,56				
Total header cost/hour	R599,50	R432,85	R394,48				
Total harvester and header cost/hour	R3 970,93	R3 804,28	R3 765,91				
Working speed	6 km/h	6 km/h	6 km/h				
Working width	7,2 m	9 m	8,1 m				
Field efficiency	0,75	0,75	0,75				
Ha harvested/day (10 hours)	32,4	40,5	36,45				
Hour per ha needed	0,309	0,247	0,274				
TOTAL COST PER HA	R1 225,59	R939,32	R1 033,17				
Diesel (litre/ha)	13,33	10,67	11,85				
Diesel (R/ha)	196,93	157,55	175,05				
Repair and maintenance (R/ha)	197,03	149,74	164,36				



floating, multi-section flexible headers with split reels. This allows the entire header frame, cutter bar and reel to follow ground contours as a unit, flexing up to 245 mm on either end while maintaining a close reel-to-cutter bar relationship.

A flexi draper header is called a draper due to the draper 'belts' that carry the crop to the feeder house. Thus, the feed is so much smoother and it allows farmers to cut a little later at night due to the even feeding. The belt is also known to reduce soybean loss as the soya plant is handled gently and the seeds don't get lost before the harvester.

At the end of the year the soybean profit will determine a producer's bank balance. Producers must calculate what the cost of the different headers are, and what the loss of the beans must be before it make sense to buy the more expensive headers.

#### **TIMING IS IMPORTANT**

Unfortunately soybean harvesting is not easy. The time of day that a producer starts to harvest is critical. Since soybean plants absorb the moisture from the dew it gets sticky and loses its brittleness. This makes it difficult for the harvester to harvest. The harvester's cutter bar can easily break in the morning. Later in the evenings the same occurs but the plants will typically get stuck around the threshing drum. The moisture will therefore reduce the harvesting time per day which will have an effect on how many hectares can be harvested per day.

In a year where the input cost is very high, producers will try to plant extra soybeans. The larger crop will require extra harvesters which will have an effect on the availability of contractors.

A rule of thumb is that a harvester with a 9-meter header will over time harvest between 20 ha and 42 ha per day. Don't expect more per day. In order to harvest on time a producer needs 1,5 eight row harvesters to keep up with one eight row planter. Surplus harvester capacity will help to increase soybean profitability.

Producers should plant more than one growing length cultivar. This will extend the harvesting time and one can get away with less harvester capacity.

#### **HARVESTING COSTS**

Harvesting a crop is an expensive action. **Table 1** shows the costs of maize, soybeans and sunflower harvesting using a 240 kW harvester which costs R5 235 496 and can harvest maize, wheat, soybeans and sunflower.

At a speed of 6 km/h 32 ha of maize, 40 ha of wheat or soybeans and 36 ha sunflower can be harvested. As soon as the hours per day is decreased, the hectares are also less. In the case of soybeans, harvesting ten hours per day is a challenge, so do your calculations accordingly.

To be able to harvest ten hours per day, repair and maintenance as well as services must be done according to the specifications provided by the manufacturer. Read the manuals and stick to it. If something breaks (and it will) make sure that the most likely spares are available. Prevention is better than down time especially in soybean harvesting. Service the equipment before the harvesting starts – it will save time.

> PIETMAN BOTHA, INDEPENDENT AGRI-CULTURAL CONSULTANT







## A good name is better than riches

S OWNERS/MANAGERS/LEADERS WE ALL SHARE THE COMMON VISION FOR OUR BUSINESSES - TO BE SUCCESSFUL, ESPECIALLY FINANCIALLY. PROPER MANAGEMENT PLAYS A MAJOR ROLE IN THE SUCCESS OF A BUSINESS. HOWEVER, CER-TAIN PERSONAL CHARACTERISTICS, OF WHICH TRUST IS ONE, ALSO PLAYS A ROLE IN THE SUCCESS OF ANY ENTERPRISE.

Trust originates from an ancient Norwegian word 'traust', an adjective meaning 'strong'. Trust is defined as having a firm belief, the confidence, a high expectation in someone or something. To trust someone implies that it is characteristic and predictable for a person to act in a specific way. We could therefore relate that a trustworthy person is a reliable person with a strong character.

#### THE IMPORTANCE OF TRUST

Is it really important that an owner/manager/leader should be trustworthy? Basically a business has three groups of people involved with the business – employees, customers and service providers.

In the previous article we emphasised the fact that a positive attitude amongst **employees** is very important to the success of a business. It is important that the owner/manager/leader must be unscrupulously honest, and genuine and be an example to his/her staff. They must trust you. If they do trust you, they might surprise you with their ingenuity to the benefit of the company.

Secondly, let's consider the trust in a business from a customer's perspective. **Customer** trust is the belief a customer has in a business. If this belief is positive customers will want to do business with your business.

- Keep your promises/agreements. If and when you have agreed to deliver a certain product or to have it ready for pickup ensure you stick to the agreement regarding quantity, quality, date, and time. Ensure that your products fulfil the demands of your customer.
- It is also preferable to ask for feedback regarding the transaction and to react to the feedback even if it is only to say thank you.
- When a customer contacts you with an issue with your product or service, it is in your best interest to get in in touch with them as

quickly as possible. It shows your customers they matter, and you consider them important.

- Be reliably reachable. Don't keep your customers on hold too long. When they do connect make sure the assistance they get is thorough, thoughtful, patient, and respectful. Be as professional as possible — no matter how agitated a customer might be.
- Providing them with readily accessible, exemplary customer service will show them that you value their business well beyond their initial purchase. If customers know you care, they'll be more inclined to trust you.

Lastly your **service providers** are very important to your business, and you need to build a positive relationship with them.

- A very important aspect is that of the payment of your account. Adhere and keep to all arrangements and should you not be able to settle an account contact your service provider timeously. Do not keep quiet.
- When you do have a query regarding a product received, be firm but respectful towards the service provider. Even if you are really agitated you still need to be good mannered.

When your service providers trust and respect you, you will be able to able to negotiate more easily for better prices, or terms of payment, and/or better interest rates. They will go the extra mile and most probably quote you more favourable prices. You will also find it easier to borrow money and financiers will tend to be more lenient towards you when you have difficulty repaying your obligations. Service providers will want to do business with you.

Thus, when people judge you to be trustworthy, the result to the benefit of your business will only be positive and measurable in rands and cents.

MARIUS GREYLING, INDEPENDENT AGRICULTURAL MANAGEMENT CONSULTANT



# Get your TRACTOR ready for next season



ECAUSE TRACTORS WORK HARDER THAN ANY OTHER EQUIPMENT ON THE FARM, MAINTENANCE AFTER THE PEAK WORKING SEASON IS CRUCIAL. THIS WAY YOU WILL KEEP THEM RUNNING AT THEIR BEST.

Read your operator's manual.





2 Wash, clean and wax the tractor.

3 Fix what you know is broken.





9 Blow out or replace air filters. Replacing them is recommended.

Charge the battery to a full charge and remove the battery cables from the battery.

8



**10** If the tractor is going to stand outside, cover the exhaust.





Fill the fuel tank completely.



**11** Pull monitors out of the cab and receivers off the roof. Under cover storage is recommended.

**13** Bring out the mouse repellent.

**12** Check the air pressure in the tyres. If you have duals, make sure each set of inside and outside tyres has the correspondingly correct pressures.





PIETMAN BOTHA, **INDEPENDENT AGRI-CULTURAL CONSULTANT** 



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6



thoroughly.

5

7 Make sure the freeze point in the antifreeze is low enough.



Make sure that the different oils are on the correct levels and fill it

up if necessary.

### LOOK BACK... then plan the way forward

ANY FARMERS CLAIM THEY LOVE THE OUT-DOORS AND HATE BEING STUCK IN AN OFFICE. FOR THESE INDIVIDUALS, RECORD KEEPING IS TIME CONSUMING, BORING, RESTRICTING AND A PUNISHMENT TO BE AVOIDED AT ALL COSTS – BUT THIS IS A VERY OUTDATED MANNER OF THINK-ING. IN MODERN FARMING BUSINESSES, THE KEEPING OF RECORDS PLAYS A SIGNIFICANT ROLE IN CONTRIBUTING TO EFFICIENCY AND IMPROVED PERFORMANCE.

It's that time again – prepping for a new summer grain growing season. The farm shed area is humming with activity as the implements and planters are serviced in readiness. My office has been a buzzing hub for many planning meetings. All the while the farmers are looking through their historic records sifting through information that enables them to make the best decisions for the new season.

The farmer who keeps track of farm activities and farm expenses is empowering his planning and forecasting process. Tracking costs and measuring yields per field, leads to informed decision making. Even my old dad who farmed in the days before computers and cell phones, kept a big ledger book on his desk. It was his routine to end each day sitting at his desk and entering every activity that had taken place on the farm that day. I still recall the many occasions I'd see him scanning the pages to remember exactly when he had replaced a tractor filter or what date the first calving of a season had begun. You can't manage what you can't measure!

#### WHAT RECORDS SHOULD BE KEPT?

I, like my dad, believe that a journal should be kept of daily activities. Record keeping can be divided into categories. The two main distinctions are 1) financial and 2) the production aspects that is physical data.

Let's look at some specifics about record keeping:

#### **Financial records**

Banks, agribusiness and financiers require evidence of good farm record keeping before loans or grants are made available. In the old days many farmers used a 'shoebox' method of bookkeeping which was all on paper between a notebook, a ledger and the loose papers that were stored in a box and later handed to the bookkeeper. This costs the farmer much more money because he is effectively leaving all his filing to the bookkeeper.

Nowadays there are many computer programmes that are a great tool in the farm office. Your records are your proof of income, expenses and inventory as reported on in tax returns. Whichever method is chosen, certain information needs to be gathered, organised, filed and analysed. The point of record keeping is to provide the farmer key information on a timely basis. All income and expenditure on the farm should be recorded.

It is useful to **allocate an expense against a certain implement or operation**. For example when repairs are done to a particular tractor, make note of what that tractor is costing you. Over the period of a year, it should be possible to look at each of your tractors and implements and know what each item has had spent on it.



Equally important is **keeping records for each separate activity on the farm** like maize cropping, vegetable production, beef animals, sheep and poultry. Each line item has to tell its own story so the farmer can see whether that activity is profitable and worthwhile or does he have to reconsider an activity to find something more profitable to do in its place.

In order to stay on the right side of the law, every farmer should be **submitting VAT records and TAX returns** to SARS. With the help of a reputable accounting firm this is done in conjunction with tracking cash flow and informs the farmer when he draws up his budget for the new season.

Farmers normally need to at least keep the following documents for the bookkeepers:

- Bank statements.
- Cash analysis book including records of payments and money received.
- List of monthly wages paid.
- · All tax invoices, proof of payment, sales slips, statements.





#### Asset inventory lists

List all the physical assets on the farm then get a reasonable value in rands. For example list the farm land, the farm buildings, all vehicles and machinery on the farm, any crops still on the farm or in silos, estimate the value of crops growing on the field and record all livestock owned by the farming enterprise.

Your bookkeepers will review this list on an annual basis as some assets will increase in value whilst others may depreciate. Depreciation refers to any reduction in value of an asset like vehicles, implements, equipment and tools. This occurs due to age, wear and tear or even when an item become obsolete or useless.

#### Vehicles and implements: Licences and financing

A farm usually has a number of vehicles and implements doing the farm business.

- Keep records for each vehicle date of purchase, services etc.
- Know when the licenses are due for renewal to avoid the unnecessary cost of a fine.
- List which vehicles are paid off and which are still financed.
- Make sure that you source a tax certificate for each item still being paid off for your accountant at the end of every financial year and in the final instalment month.

#### Human relations: Employment records

We are dependent on our farmworkers and are responsible for accurate record keeping in our human relationship division.

- Keep a history for each worker that records start date.
- Have a copy of an identity document for each worker on your records.
- Record annual leave, sick leave and compassionate leave allocated.
- Report salaries for UIF records on a monthly basis.
- Seasonal workers keep records of when and why they were employed.

#### **Production records**

This is important and enables farmers to track income per crop against cost of production.

- Fields, cultivars, yields
  - Plantings done where, what, when. Keep detailed records of each process followed on each field including dates of each activity.

Spray programmes used. Spray history is relevant from one season to the next in case there is a residual influence which may harm the next crop.

- Pesticides that were used and why.
- Dates on which they were sprayed.
- Which fields were sprayed.
- The safety intervals for each chemical.

#### Livestock

- Livestock farmers should record animal numbers, purchases and sales.
- Keep data on the feed supplied and the cost of the feeding know how much you are feeding per animal per day.
- Have you had to manage pests or disease, what did you do to manage the problem?

#### **RECORD KEEPING VS RECORD ANALYSIS**

These are two completely different activities. The act of record keeping is the administrative process of paying bills, filing, sorting, and completing the VAT etc. On the other hand, record analysis is the process of evaluating the information recorded and using it for decision making.

- Organised records cut time spent in the office from days to hours.
- Data collection drives growth as long as you understand what your data is telling you.

JENNY MATHEWS, MANAGEMENT AND DEVELOPMENT SPECIALIST AND EDUCATOR



# Soybean outlook for the 2022 PRODUCTION SEASON

HE 2021/2022 SEASON HAS BEEN GREAT FOR SOY-BEAN PRODUCERS IN TERMS OF PRICE, BOTH IN-TERNATIONALLY AND LOCALLY. LOCAL SOYBEAN PLANTINGS SHOULD BE CONCLUDED BY THIS TIME OF THE YEAR. THIS ARTICLE LOOKS AT INTERNA-TIONAL AND LOCAL PROSPECTS FOR THE SOYBEAN MARKET.

The South African Weather Service's multi-model rainfall forecast in-

dicates mostly above-normal rainfall for the north-eastern half of the country throughout the spring to early summer seasons, whereas the south-western half, which falls outside the parts which receive summer rainfall, is mostly expected to receive below-normal rainfall. Above-normal minimum and maximum temperatures are expected across the country.

#### **INTERNATIONAL PROSPECTS**

International soybean markets are expected to expand by 4% year on year, with the global output placed at a record of 380 million tons on bigger harvests in the three major producing countries – Argentina, Brazil and the United States.

There is also a 4% expected increase in consumption, owing to demand growth in feed, food, and industrial use (**Table 1**). Furthermore, the International Grains Council (IGC) anticipates that consumers (and importers) in some regions will utilise increased quantities of soybeans and products given a plunge in rapeseed/canola availabilities.

After consecutive seasons of decreasing stock levels, it is anticipated that world inven-

tories will increase, including modest accumulation in key exporters. In part reflecting smaller than expected shipments at the end of the prior trade year, global import demand is predicted to expand solidly.

#### LOCAL PROSPECTS

According to the Crop Estimates Committee's report on producers' intentions to plant summer crops for 2022, soybean hectares are expected to increase by 11,8%, from 827 100 ha to 924 800 ha. This is a



Source: Grain SA

Million tons	2018/2019	2019/2020	2020/2021 (Estimate)	2021/2022 (Forecast)	y/y change
Opening stocks	48	63	52	57	8,8%
Production	362	340	366	380	3,7%
Total supply	411	403	418	436	4,3%
Total use	348	351	361	376	4,1%
Crush	304	308	319	332	4,2%
Food	20	21	21	21	1,4%
Feed	13	14	13	14	7,6%
Closing stocks	63	52	57	60	5,6%
Major exporters	30	23	18	20	6,8%
Trade (October/September)	152	170	162	170	4,9%

Global supply and demand of soybeans.



good indication that the 2012 soybean strategy by the Department of Trade, Industry and Competition (dtic) and industry to increase soybean production and processing is working.

For the better part of 2021, soybean prices have been at export parity levels. Given the expected increase in hectares, Safex prices will likely remain at the export parity level (**Graph 1**).

The increased soybean prices in the past year, have also contributed towards incentivising producers to plant more hectares, more so given the lower input requirements compared to maize and the excessive increases in input costs including, fertiliser, chemicals, and fuel. It is expected that international oilseed prices will remain high in the short to medium term while stock levels recover, this would probably continue to filter into the local market, supporting prices as it has been observed in the past year.

IKAGENG MALULEKE, AGRICULTURAL ECONOMIST AT GRAIN SA



### LIMPOPO joins the programme

N THE REPORT ABOUT THE FARMER DEVELOPMENT PRO-GRAMME (FDP) MENTION HAS BEEN MADE OF LIMPOPO FARMERS JOINING THE PROGRAMME. CURRENTLY ELEVEN STUDY GROUPS CONSISTING OF 427 FARMERS FARMING ON 750 HA ARABLE LAND ARE LEARNING MORE ABOUT MAIZE PRODUCTION.

Mirriam Swaedi is the lady responsible for this area becoming part of the programme. She used to go and visit her relatives in Draaikraal in Mpumalanga and saw the maize that planted by the farmers who were members of Grain SA realised a much higher yield than the other farmers. Two farmers from Sehlakwane visited and then joined the Lydenburg Study Group in Draaikraal. In 2018 they participated on the BA Project (previously known as the Jobs Fund GSA Project) and paid their fee. After seeing the maize that they planted and the yields that they realised during that year, the other farmers in Sehlakwane asked them to call Grain SA so that they too could join. They received some training on the production practices from soil preparation until harvesting.

'Our main objective when we started to work with them was to help them to produce maize at commercial yields on their 1 ha plot so that they could ensure household food security and then sell the surplus for income generation,' says Jerry Mthombothi, Grain SA development coordinator in Nelspruit.

Jerry says that after seeing the good work that was being done in Limpopo, Grain SA was identified as the suitable implementing agent for mentorship in the farming areas within Limpopo for producers supported through the BA initiative in the 2019/2020 planting season. Grain SA signed a service level agreement with the Department of Agriculture and Land Administration in Limpopo for the 2019/2020 planting season. During that time the department assisted Grain SA by buying the additional inputs and payment for mentoring work that was done by the two mentors, Agnes Mndawe and Elias Dladla.

A total of 119 farmers with 231 ha participated under the BA project in 2019/2020 planting season and in the 2020/2021 planting season there are 209 farmers with 463 ha.

The smallholder farmers were producing less than 1 t/ha when they began. 'Currently they are producing on average 3,5 t/ha. There are even some farmers who are producing more than 7 t/ha on those small lands,' says Jerry.



The lady who set the ball rolling for Limpopo to join the FDP, Mirriam Swaedi, with Jerry Mthombothi. (Photo taken in the 2018/2019 season).

**PULA IMVULA EDITORIAL TEAM** 



### **Crop rotation can REDUCE risks**

PLANNED CROP ROTATION PROGRAMME ON YOUR TOTAL MEDIUM TO HIGH POTENTIAL ARABLE AREA SHOULD INCLUDE THE CORRECT MIX OF CROPS THAT CAN BE SUCCESSFULLY CULTIVATED ON YOUR FARM. THE HIGHER PO-TENTIAL, BEING MAINLY THE DEEPER AND FERTILE SOILS, CAN BE PUT INTO A DIFFERENT CROP CYCLE THAN THE MEDIUM POTENTIAL SOILS.

As you drive through your lands during January 2022 you will be able to assess the success of your cropping programme for the 2021/2022 season. Walk through all of the established croplands and look at plant spacing and population, the health of the plants and assess to see if the growth stages are normal in each crop grown.

If you haven't yet done so profile holes should be made in each different soil type and assessed as to depth and for any layers that would impede root development. Soil tests can be taken near the profile holes in the top soil at 0 mm to 150 mm at a minimum and 150 mm to 300 mm to see what the fertility levels are lower down. Without this basic information on your soils, a crop rotation programme suited to the differing production potentials on you farm cannot be properly planned.

The mix, for example, of maize, sunflowers and soybeans will spread the planting work load, weed and pest control before and after planting, harvesting pressure, climate and financial risk from being dependent on one crop.

Crop insurance cost for soybean production in the Eastern Cape is about 20% and thus eliminates this as an option in the mix. A rotation of maize and sunflowers would reduce the input cost and overall financial risk. Canola and pasture rotations can be included with dryland wheat production in the Eastern and Western Cape production areas.

#### STRATEGIC PLANNING FOR CROP ROTATION

A successful plan will take into account the futures price of each of the crops in rotation, your farms suitability for each crop, your mechanisation capacity to plant the different crops and your expertise and desire to plant a particular crop. You will manage the crops you prefer better.

However to achieve maximum returns from the farm as a whole, the inclusion of sunflowers and soybeans would be driven by the relatively high ruling prices for these grains. It is essential that you are able to plant maize, sunflowers and soybeans as accurately as possible. A proper planting depth and emerged population is critical to success. The large investment in the proper planter will never be wasted. Be sure that you can plant each crop at the optimum time.

The farmer is thus largely being influenced to plant more or less hectares by the market forces that determine the value of these crops. Use a gross margin analysis to decide how much of each crop to plant so as to improve the overall financial returns possible on your farm. Be sure to study and understand the agronomic factors that determine your ability to manage the different crops properly.



#### AN OVERVIEW OF THE INCOME TO BE GENERATED

The futures prices per ton for May 2022 are as follows:

- Maize: R3 200/ton less an estimated delivery differential of R300/ton equals an in the pocket income of R2 900/ton.
- Sunflower: R8 525/ton less a R450/ton delivery differential equals R8 075/ton.
- Soybeans: R7 065/ton.

Using maize as the base price the equivalent tonnage of sunflower would be R8 075/R2 900 or 2,78 tons and for soybeans R7 065/R2 900 or 2,44 tons.

The above calculation shows that you have to produce 2,78 tons of maize to have the same income from 1 ton of sunflowers and 2,44 tons of maize to have the same income from 1 ton of soybeans. The question is which crop is easiest or more cost effective to grow. This should be based on the accurate knowledge of your past production yield achievements.

In other words, ask yourself, if is it easier to produce 3 tons of maize, 1,08 tons of sunflowers or 1,3 tons of soybeans per hectare on your soils. It is evident that the ruling sunflower price is very favourable



to increasing your production of sunflowers over soybeans depending on your long term or estimated possible yield of soybeans.

Your soils might be suited to the production of all three of these crops or in a medium soil potential favour the production of sunflowers over soybeans or maize. Remember that soybeans, if the nodulation with rhizobia is good enough, can contribute about 50 kg of nitrogen to the next crop in the rotation.

It can be decided to plant an equal area of maize, sunflowers or soybeans as a long term plan or to adjust the hectares every year. The income from a 300 ha farm with 100 ha planted to each with the following yields, on similar soil potential, might be calculated as follows:

- 100 ha of maize at 4 t/ha yield equals 4 x R2 900 for an income of R11 600/ha for a total of R1 160 000.
- 100 ha of sunflowers at 1,6 t/ha yield equals 1,6 x R8 075 for an income R12 920/ha for a total of R1 292 000.
- 100 ha of soybeans at 1,8 t/ha yield equals 1,8 x R7 065 for an income of R12 717 for a total of R1 271 700. Total farm income for the crops in the same future rotation would be then R3 723 700.

Costs for each crop range from R8 000/ha to R14 000/ha. Work these out accurately to be able to calculate an estimated margin for each crop and the farm as a whole.

#### CONCLUSION

If you can establish the most likely yields for the soil potential of your farm for each of the crops, a more accurate estimate of income from the total area after the relevant direct costs have been deducted can be made. The required costs for fertilisation and seed must be carefully analysed to make a true comparison of the potential net income to be generated.

RICHARD MCPHERSON, AGRIBUSINESS AND PROJECT MANAGEMENT CONSULTANT









### Improve your CHEMICAL WEED CONTROL strategy

UCCESSFUL WEED CONTROL IS PROBABLY ONE OF THE MOST CHALLENGING AND SKILL DEMANDING OPERATIONS IN THE PRODUCTION OF CROPS. IT ALWAYS INCLUDES RISKS – MAINLY BECAUSE IT IS SO STRONGLY AFFECTED BY CONDITIONS DETER-MINED BY THE ENVIRONMENT WHICH THE FARMER HAS NO CONTROL OF.

Herbicides should also be treated with great responsibility. Remember, herbicides are developed as plant killers with the ability to be selective towards certain (selected) crops. Having the ability to kill the weed, it might – if used incorrectly – damage or even kill the crop you have planted at high cost. There are many cases of severe damages and losses caused by the incorrect use of herbicides. For this reason, herbicides should always be applied with great care by a responsible user in charge.

#### WEED CONTROL STRATEGY

Weed control is a high risk and sometimes a complicated activity. When preparing a weed control strategy, there are a number of important aspects the farmer should keep in mind.

#### Always keep track of the environment

During most of the growing season of a crop, one or more of these environmental conditions (for example high temperatures or a strong wind) occur and the farmer has no control over any of these conditions. The best he or she can do is to be aware of it and plan every



A successful weed control programme always aims to achieve season long weed control.







Farmers in the Dipaleseng Municipality (Balfour, Mpumalanga) – the late Ben Nhlapo and Moses Nhlapo from Harambe Farming with Johannes Simelani of Mpembe farming in their chemical store after making their choice of fertiliser.

An example of a common broad leaf weed you might observe in your field. It's common name is Cocklebu.



It is already just too late to successfully control the weeds in this red speckled bean field.

action with these conditions in mind.

- These conditions, among others, are mostly:
- Temperature (heat or cold).
- Rain or the lack of rain.
- Humidity (amount of water vapor in the atmosphere or the absence of it when conditions are very hot and dry).
- Wind.
- Dust on the surface of leaves caused by a combination of drought and wind.

#### Know the weeds in your field

- Having a good knowledge of the weeds you regularly observe in your fields is of great value in order to achieve the best results in your control strategy.
- Identify the weeds by consulting weed control experts. Identify the common name of each weed and write it down as part of your record keeping.
- Learn the common name in which it is mostly indicated on the label accompanying the different herbicide products on the market.
- · Identifying the weeds carefully in the current growing season will help



Although a cost comparison was not made in this case, it was a better decision to control the weeds mechanically since the weeds in Photo 3a exceeded the early leave stages.

you to target the weeds in your herbicide selection and to choose your herbicide more accurately, next time.

 Remember, this is not an instant process but teach yourself to become acquainted with these weeds (the 'enemy' amongst your crops) and their names.

#### Choose the right herbicide

- Knowing the names of the weeds you plan to control in the coming season already places you in a strong position to make the best choice when selecting these expensive products.
- In the label of each herbicide, you will find tables clearly indicating the common names of weeds controlled by that specific herbicide.
- The more accurate your list of expected weeds is, the better choice you can make when choosing the most suitable product.

#### When practicing post-emergence control, apply herbicides early

As a plant (weed) grows, develops and becomes mature, their outer layers become thicker, waxier or covered with more hairy structures. This will make it more difficult for any chemical product such as a herbicide to penetrate and become effective as a weed killer.



#### Improve your chemical...



If you do not neglect your boom sprayer and always keep it in a good condition, you will surely reap the benefits when you have to calibrate and apply the expensive herbicides.

In many cases, herbicide labels refer to the concept of early postemergence control rather than post-emergence control only. This gives a clear message that post-emergence control should happen at an early stage of weed growth (when the weeds are still young and vulnerable) with no delay. For example, on the Basgran label (a post-emergence herbicide manufactured by BASF with the active ingredient Bendioxide) the leave stage and its relation to rate of application (dosage) is clearly indicated in one of its tables.

**Table 1** shows that weeds should be controlled at an early stage. The table also shows that there are differences between weeds. It also shows that certain weeds should be controlled at a younger stage while others can be 'allowed' to grow slightly bigger, according to the label – up to the eighth leave stage, depending on the rate of application.

In the table a few examples from the Basagran label is shown, indicating the leave stages at which certain weeds should be controlled as well as the higher rate of application that might be needed, depending on the leave stage of the weeds.

In **Photos 3a** and **b** (on page 15), we see an example of the importance of decision making and correct timing of a post-emergence weed control action. Always remember, when practicing post-emergence control, apply herbicides early – when weeds are still young and vulnerable.

#### **BOOM SPRAYER CARE**

Unfortunately, it is often seen that neglected and ineffective boom sprayers are still in use on many farms. As a grain producer, if you want to

#### Leave stages and weed control.

Common name of weed	Leave stage			
	Dosage			
	2	3 ℓ/ha		
Dubbeltjie	2	4		
White goosefoot (Wit hondebossie)	2	4		
Large thorn apple (Olieboom)	6	8		
Cocklebur (Kankerroos)	6	8		
Black Jack (Knapsekêrel)	4	6		
Tall khaki weed (Kakiebos)	4	6		

win the war on weeds, make sure that you keep your boom sprayer in a good condition, always ready to be used (**Photo 4**). Thoroughly care for your boom sprayer, calibrate correctly and do not spoil the mix.

Use only clear and clean water when preparing the mixture in your spray tank. Sometimes water contains minerals that has a negative effect on certain herbicides. In order to make sure that you use a good source of water when mixing your herbicide, there are several laboratories where one can submit a water sample to be tested for water quality.

#### Your boom sprayer checklist

- The pump and the inlet filter should be in a good working condition.
- A tank (at least 600 litre capacity) with a proper agitator spray head inside to ensure thorough mixing of the contents inside the tank.
- A well supported pipe-system without leakages.
- All filters to be checked and cleaned.
- Make sure the spray nozzles are well chosen for the particular task.
- All nozzles should be of the same kind and equally distributed (spaced) and well directed on the boom, to ensure effective cover.
- The tank lid filter must be kept clean to avoid dust and dirt entering the tank.
- The pressure meter should be in a good working condition.
- The PTO driving shaft, linking the tractor with the boom sprayer, should be in a good working condition with a proper safety shield.
- A strong and straight boom-bar, set at the correct height, is important as it carries the pipeline and the nozzles.

PHONNIE DU TOIT, ARC GRAIN CROPS INSTITUTE, POTCHEFSTROOM.



### Meet the partners of the Farmer Development Programme

CCORDING TO NEW ZEALAND ENTREPRE-NEURS JO FOSTER AND JANINE OGG, JUST ONE GREAT PARTNERSHIP WITH THE RIGHT PERSON CAN HAVE AN INCREDIBLE IMPACT ON YOUR BUSINESS SUCCESS. ALTHOUGH GRAIN SA'S FARMER DEVELOPMENT PROGRAMME (FDP) HAS SEVERAL GREAT PARTNERSHIPS ACROSS THE SEC-TOR, THE MAIZE TRUST REMAINS ONE OF THE MOST IMPORTANT COLLABORATORS IN SUPPORTING MAIZE PRODUCERS SPECIFICALLY.

#### THE MAIZE TRUST

The Maize Trust was established in August 1998 to promote the South African maize industry. Its mission is to facilitate the continuous improvement of the entire maize industry in South Africa, to ensure that the industry becomes a leader in the area and is internationally competitive.

Since its establishment, the Maize Trust has served the agricultural industry through financial support. It has granted and continues to disperse a large amount of funds to a variety of organisations and institutions involved in research, development and information programmes in the South African maize industry. Funding from the Trust can be accessed by any institution or organisation in the maize industry who can demonstrate that an intended programme aimed at market and production related research will benefit the industry as a whole. The Trust's funding is aimed at the financial support of actions and programmes by reputable institutions involved in the industry. Importantly, the Trust does not have any other income. Grants are paid from the annual income of the Trust, which is derived from dividends and interest on the investment of the donations that were received from the Maize Board.

Grain SA's FDP is grateful to have continually benefited from this sponsorship since the Trust's inception. The Grain SA's FDP specifically benefits for targeted funding dedicated to supporting the training of farmers, supporting the convening and support of farmers' study groups as well as advanced farmers' inputs support including insurance, soil corrections and mentorship support.

As the Trust does not have employees it makes use of the services of an investment adviser on a contractual basis to advise the trustees on the investment of funds. The administrative services of the trust are



The logo of the Maize Trust.

contracted out to an independent entity, L&L Agricultural Services who also have other clients like the Sorghum Trust; including the Maize, Wheat and Sorghum Forums; the South African Cultivar Technology Agency (SACTA) and the Bureau for Food and Agricultural Policy (BFAP).

The Board of Trustees comprises six members that are appointed for a term of two years. Three of the trustees are appointed by maize industry sector players, while the other three are appointed by the Minister of Agriculture, Land Reform and Rural Development. Twice a year, these trustees meet to consider applications for funding. Six more meetings are held annually by the trustees to discuss the general operations and investments of the Trust.

#### **INVESTING IN DEVELOPING AGRICULTURE**

The secondary objectives of the Trust are to broaden market access for the benefit of the maize industry and to fund the assimilation and distribution of market information. This includes the publication of relevant information pertaining to maize production in the *Pula Imvula*.



The Trust's sponsorship of the Pula Imvula is focused on the maize section of the magazine to advance maize production amongst developing farmers.

Currently the Maize Trust funds its transformation projects through the Farmer Development Programme of Grain SA amongst others. These programmes assist developing farmers by paying for, inter alia, soil correction, comprehensive crop insurance and the costs of mentors to assist the farmers for a five-year period or longer.

Annually the Trust also grants approximately twelve bursaries for maize related studies (M.Sc. and Ph.D.) to qualifying students in different South African universities across the country, of which at least 50% is from previously disadvantaged communities. The aim of the Maize Trust Bursary Scheme is to ensure the implementation of an equitable bursary scheme, and to assist the current and future students of the Trust to further their educational qualifications and develop industry relevant skills.

PULA IMVULA EDITORIAL TEAM

# Growing groundnuts aflatoxin-free

HE GROUNDNUT OR PEANUT (*ARACHIS HYPOGAEA* L.) IS AN IMPORTANT FOOD AND FODDER CROP IN THE FARMING SYSTEMS OF DEVELOPING COUN-TRIES. THE SEED IS HIGH IN OIL (CLOSE TO 50% FOR MANY VARIETIES) AND PROTEIN (AROUND 26%) AND AN IMPORTANT SOURCE OF VITAMINS AND DIETARY FIBRE.

Groundnuts, like all legumes, are also important due to their ability to fix atmospheric nitrogen, a critical and often limiting nutrient for crops in degraded soils. Global groundnut production is concentrated in Africa (40%) and Asia (55%). In South Africa groundnuts are primarily produced by large-scale commercial producers and subsistence farmers in certain parts of the country.

From the groundnuts produced by large-scale commercial producers roughly 80% is used for consumption, whereas the rest is crushed. Groundnuts are consumed as peanut butter; crushed and used for the groundnut oil; or simply consumed as a snack (roasted, salted or in sweets). Resource-limited farmers, especially in the northern and eastern parts of South Africa, grow groundnuts mainly for own consumption. Groundnuts are an important source of nutrition in the northern KwaZulu-Natal and Mpumalanga areas. The crop can also contribute to more viable and sustainable cropping systems in other parts of the country.

#### TOXINS

Many agricultural commodities are susceptible to several diseases caused by fungi, viruses and insect pests. Many fungi are free-living organisms capable of surviving in the environment (soil, air and water) and can easily find their way into crop products especially when the weather conditions are suitable. Some fungi of concern can contaminate crops with toxins. The toxins produced by fungi are called



mycotoxins (myco = fungus; toxin = poison). The fungi *Aspergillus flavus* and *Aspergillus parasiticus* are the most common sources of food contamination the world over. These fungi produce a mycotoxin called aflatoxin (from *Aspergillus flavus* toxin). When consumed via contaminated crops or products, aflatoxins can cause several negative health effects in humans and livestock.

In groundnuts, high aflatoxin levels pose human health risks and are also a barrier to expanding trade in and commercial use of groundnuts. Eating food contaminated with aflatoxins leads to aflatoxin poisoning, also called aflatoxicosis. Regular consumption of low dosages for a long time (chronic exposure) leads to liver damage, immune suppression, malnutrition and stunted growth in children, while sudden high-level ingestion of the toxin (acute exposure) can lead to death.

#### **BIOCONTROL AGENTS**

There are a number of control measures for aflatoxins and these have been discussed at length in various articles and publications. These are used in an integrated disease management system, but unfortunately, they are not always effective. The use of a biocontrol system in the integrated management system has been well researched and developed. Application of biocontrol agents to the crop such as Aflasafe<sup>®</sup> or Aflaguard<sup>®</sup> is based on the competition between two isolates of *Aspergillus*, that is the non-toxigenic and toxigenic forms.

This biocontrol technology makes use of carefully selected nontoxigenic strains that can safely outcompete and virtually eliminate their toxic relative, effectively reducing contamination of the maize grain in fields. A single application of Aflasafe two to three weeks before flowering can prevent aflatoxin contamination throughout, even when grains are stored. This technology is very effective, but has been met with some circumspection from many researchers and individuals in the groundnut production and processing systems. The primary concern is



Aspergillus spp. *infected groundnuts in the pod, showing typical yellow/green fungus growth on the nut and the pod.* Photo: Dr Ranajit Bandyopadhyay (IITA, Ibadan, Nigeria)



*Harvested groundnuts heavily infected with* Aspergillus flavus. Photo: Dr Ranajit Bandyopadhyay (IITA, Ibadan, Nigeria)

that as these aflatoxin- and non-aflatoxin-producing isolates are of the same species, they may be sexually compatible and that non-toxigenic strains may revert to toxigenic strains. This is a fair observation for people who do not understand the genetics of this fungus. However, this is not possible.

Although they are of the same species, not all isolates are capable of being compatible and thus they are not able to have progeny that may cause non-aflatoxin-producing isolates to revert back to toxigenic strains. This is because within the species, isolates belong to specific mating types. The non-aflatoxin-producing isolates that are carefully selected for use in these biocontrol systems are of the same mating type and cannot cross with other compatibility groups. Due to this careful selection, the non-aflatoxin-producing isolates compete with the other naturally occurring aflatoxigenic isolates. But when applied early enough, they infect early and thus keep the harmful isolates out.

Another concern was that these isolates may affect the flavour of the groundnuts, but studies have shown this not to be the case. This





Growing groundnuts...



technology will play an important role in reducing aflatoxin contamination in groundnuts.

A number of years ago the author of this article was involved in a study where the product called Aflaguard was tested in groundnut fields planted commercially in South Africa. The product was brought in from the USA and used locally. Unfortunately, the product did not reduce aflatoxin levels significantly. Possible reasons include that the isolates were not compatible in South Africa as growth conditions locally differ considerably from those in the USA. The viability of the product was also questioned, as there was no control over the conditions the product was subjected to and this could have affected viability. When plated out, the viability of the product was very low and possibly explains the poor efficacy.

Another product, called Aflasafe, is being developed. This is largely being driven in a number of African countries with great success by Dr Peter Cotty (USDA/ARS, School of Plant Sciences, University of Arizona, Tucson, USA) and Dr Ranajit Bandyopadhyay (IITA, Ibadan, Nigeria). They use local isolates which are collected from within each country and then screened to determine compatibility groups. The non-aflatoxin-producing isolates that were in a specific mating type are selected for that specific country. These are then commercially produced within the country and applied with great success. This may be a novel technology to be developed in South Africa for both commercial producers and small-scale farmers to ensure safe aflatoxin levels in aroundnuts.

Producing aflatoxin-free groundnuts ensures food safety. The health and economic well-being of producers and consumers of groundnut products are an important investment in the agricultural sector. Use of good crop production practices and post-harvest handling techniques together with non-toxigenic strains can effectively reduce aflatoxin contamination and maintain the quality of the produce. Such efforts would then open up opportunities for producers to access rewarding markets that currently have stringent quality standards.

Groundnuts harvested at Vaalharts showing Aspergillus spp. infections. Photo: Maria van der Merwe (ARC-GC, Potchefstroom)

**PROF BRADLEY FLETT** ARC-GRAIN CROPS, POTCHEF STROOM. FIRST PUBLISHED IN **SA GRAAN/GRAIN FEBRUARY 2021** 







### THE CORNER POST

CLIFFORD MTHIMKULU Succession farming prepares you to succeed

T THE TENTH ANNIVERSARY OF THE WORLD AGRICULTURE ORGANISATION (WAO), THEO DE JAGER, PRESIDENT OF THE WAO, SAID: 'WE BE-LIEVE THERE'S ONLY ONE WAY TO ERADICATE POVERTY, AND THAT'S THROUGH THE CREA-TION OF WEALTH, AND NO ONE IS BETTER PO-SITIONED TO DO THAT, THAN THE CURRENT GENERATION OF FAMILY FARMERS. BECAUSE FARMERS LEARN MORE FROM OTHER FARMERS THAN FROM ANYONE ELSE.'

#### **LEARNING FROM A WINNER**

Clifford Mthimkulu (32) from Senekal in the Free State is a second-generation farmer who developed his keen interest in agriculture watching his father work on the farm. His father, Koos, was a shepherd who became a farm worker and later developed into a top farmer who became Grain SA's 2011 Developing Farmer of the Year. After taking over the farming duties, Clifford's hard work has also turned into success.

Koos received various implements from his employer at the time Frikkie du Preez, in 2004. He started farming on land leased from Frikkie and developed into a successful grain producer. In 2008 when the duties became too much for Koos to handle on his own, Clifford who had qualified as a paramedic and worked in the security industry, returned to the farm to join his father in growing their farming enterprise.

Together father and son managed to secure their own farm through the Proactive Land Acquisition Strategy. Astoria is a 493 ha farm with the potential for a sustainable dryland cropping business. As they did not receive ownership of the land, they (like so many of the developing farmers) struggled to access finance. They realised that they would have to start small and cautiously grow their operation over the years.

Now Clifford has taken the lead on the farm and like his father, Clifford has already proven himself as a producer to be reckoned with. In the 2019/2020 season he realised 6,5 t/ha on maize and 2,1 t/ha on sunflower. The past season (2020/2021) his maize yield was 5,8 t/ha and sunflower 1,8 t/ha.

His passion, dedication and hard work has seen him become a finalist in the 2020 Grain SA/Absa/John Deere Financial New Era Farmer of the Year competition. He came third in the Toyota New Harvest of the Year competition – a competition aimed at young developing farmers who have owned or managed a farm for five years or longer and who have overcome a previously disadvantaged background to become a successful farmer.

Trading as MC Enterprise, Clifford manages nearly 1 000 ha of land which includes land leased from neighbours. His main farm (Astoria) extends to 517 ha with the land he leases from neighbour Althea Triegaardt. Another 300 ha located 35 km further is leased from Dawie van der Merwe. Here he plants maize, soybeans, sunflowers and oats for the livestock. The livestock is kept as an income buffer in case the crops cannot bring in the necessary income to pay the bills. To those young men who are interested in following in their father's footsteps, Clifford has the following advice: 'If you want to farm, you have to be passionate, determined and willing to work hard otherwise you won't succeed. To become remarkable, you must hold yourself accountable.'

#### **DETERMINED TO SUCCEED**

Clifford has been a member of Grain SA for about ten years. He has attended almost all the courses presented by the Grain SA Farmer Development Programme and says the organisation plays a huge role in his enterprise. 'Grain SA is a good organisation that wants to see developing farmers succeed,' he says.

With farming having become a lot more focused on science and the environment in the past few years, he has also learned the value of minimum and no-till agricultural practices thanks to Grain SA. 'I had to convince my father about the advantages of no-till, but after a trial planting, he was convinced that this is the way to go,' says Clifford about his decision to take responsibility for the environment too.

Johan Kriel, Grain SA provincial coordinator in the Free State, has been mentoring Clifford for a number of years. 'Ntata Johan has been holding my hand through all the years.' He sees him as his other father as they communicate daily. 'He always gives me the best advice and informs me about new products. I don't know what I'd be without Ntate Johan. He made me.'

He attributes his success to the support he has received from various organisations and individuals over the years. His father remains the inspiration behind his success. 'And perhaps the fact that I am always willing to learn and try new things, makes me successful.'

Agricultural practices that contribute to his success include careful soil management and moving to precision farming practices. Other good agricultural practices include:

- Taking soil samples yearly to determine which crops to plant.
- · Applying agricultural lime every year to lower the soil's acidity.
- Rotating crops every two years. He first grows maize, then sunflowers, followed by soybeans and oats.
- Good management skills.

The sound and smell of the farm and the recollections of his father repairing and building implements from scratch into amazing implements are the memories that inspired Clifford Mthimkulu's farming career. 'It wasn't by luck but through hard work that I can today say I am a farmer because I followed in my father's footsteps.'



LOUISE KUNZ, PULA IMVULA CONTRIBUTOR A programme that is changing lives



WE DO OUR BEST TO REACH FARMERS IN KEY GRAIN GROWING REGIONS AND REACT TIMEOUSLY TO THEIR REQUESTS FOR GUID-ANCE. WE ARE NEITHER ABLE TO SOURCE LAND NOR ACT AS A FINANCIAL INSTITUTION. AS A VIBRANT GRAIN COMMODITY OR-GANISATION WE HAVE AN AMAZING TEAM EQUIPPED TO BUILD CAPACITY, GROW KNOWLEDGE AND OFFER EXPERT AGRICULTURAL INSIGHTS FROM GRASSROOTS TO NATIONAL LEVEL.

Grain SA's Farmer Development programme focuses on meaningful human development and agricultural production practices. Thousands of developing farmers in South Africa are reaping the reward of doing the right thing at the right time in the right way, having learned from our experts. There are also dedicated partners who share our vision and sponsor the costs of the various offices and projects.

#### **STUDY GROUPS AND FARM VISITS**

During October 2021 our development coordinators and mentors had **81 contact sessions** with farmers who are members of our study group programme and made **45 in person farm visits**.

Through consistently pitching up and being present with an attentive ear, a word of advice and sharing our passion for using what they have at their disposal as effectively and sustainably as possible, the farmers have learned that the Grain SA team can be trusted to help.

- → Study group meetings are conducted indoors and outdoors where the development coordinators and mentors get down and dirty in the fields demonstrating, fixing, and teaching in a practical hands-on fashion.
- → Farm visits are tailor made to particular farmers and their unique circumstances. We focus on business planning, budgeting, sourcing inputs, dealing with contractors and building networks of support. We assist with activities, teach farmers to become capable, confident and independent and monitor crop progress throughout the season.

October was a month of **assessment and analysis**. What yields did the farmers achieve, how successfully have they used, stored or marketed their grain? Why were some yields quite low and what problems caused this?

- → KwaZulu-Natal mentor Rob Irons reported yields for Thabhane study group ranges from 2 t/ha to 6,5 t/ha. Farmer Dingane Xaba harvested top yields with another five farmers all harvesting over 5 t/ha. Analysing the reason for lower yields it as clear the shallow soils had become waterlogged in the very wet season and there had also not been sufficient heat units. The Dukuza Central study group had similar issues with the wet season. Top yields were achieved by Dingane Mkhonza and both Sipho Mabizola and Nomajaji Mazibuko harvested over 6 t/ha.
- → The Kokstad office was focussed on teaching farmers the importance of using good quality seed that will result in high germination and a quality product that is easily marketed.

October is also a busy month of **preparation**. It is critical that farmers order the correct inputs and get the right processes on the go. Many of the development coordinators spend days on the telephone calling farmers to remind them of the importance of buying good quality seed and knowing what depth and row widths to plant at. Also critical is soil health and fertilisation as well as weed control in the fields.

Support to commercial farmers includes sourcing new tractors and equipment and teaching them how to use the machinery and calibrate sprays and planters etc.

A lot of our work involves creating awareness about the challenges faced by the farmers so we are always eager to present farmers to departmental officials or agribusiness and other stakeholders like input supply companies.

Jerry Mthombothi also attended the Awareness Campaign on Crop Production at Dundonald. This event was organised by the Department of Agriculture, Limpopo Province and was attended by 67 farmers and officials. Jerry also did a presentation on soil preparation and planting maize.

### AT GRASS ROOTS



Equipping a borehole for water supply.



A farmer hard at work disking his land.



This farmer and some of his family were proud to show off their new ripper to their mentor.



It is very handy to have a diesel tank on your farm, says BZ Nzimande.







Farmer Development Programme

Feedback

### **Growing membership** in Limpopo

THE Zaaiplaas Study Group in Limpopo held a successful Imbizo during October. Grain SA development coordinator from Mpumalanga, Jerry Mthombothi, was in charge of the arrangements. Farmers in the area learned more about the work Grain SA is doing to develop and support farmers to follow the correct production practices. A total of 16 officials from the Department of Agriculture and 105 farmers attended the imbizo. Dr Sandile Ngcamphalala discussed the strategic focus of the organisation and explained the Beyond Abundance project and other projects that Grain SA manages. There is renewed hope and excitement amongst these farmers.



Grain SA economist Ikageng Maluleke talked about the marketing of grain.



Patricia Zimu, Grain SA marketing officer, explained how Grain SA membership works.



Some of the Limpopo farmers who attended the imbizo.

office into the fields.

A bakkie becomes an office where a farmer signs his new season contracts.

Paperwork is

part of farming

DURING farm visits, Grain SA's field officers

discovered it is a paper war this time of the year.

Paperwork hounds the farmers from the farm



TG Shabalala in his office catching up on paperwork.

Park the bakkie office in the sun to sign those documents.



And the signing continues...







Discover the **#DEKALBadvantage** 





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#### Growing more with less starts with strong seed and effective crop protection !

Big or small, **DEKALB**<sup>®</sup> caters for all! No matter the size of your farm, with a wide selection of quality seed, we'll help you grow more with less. Our seed bags come in different sizes and you can choose between stacked traits, **Roundup Ready**<sup>®</sup> **MAIZE 2**, and conventional hybrids. Take hands with **DEKALB** and harvest your success this season.

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