PULA IMVULA

GRAIN SA
GRAAN SA

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

MONSANTO

PULA IMVULA

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How proud we all were of the Farmer of the Year candidates from the three categories. It is moving to see what people can achieve under some difficult circumstances. The quote in the Pula Imvula this month of: *"The future depends on what we do in the present" (Mahatma Gandhi),* is so true for these farmers – if they continue to work as well as they are working now then they should be assured of a bright future. The example they are setting for other farmers is of great value – we can all triumph over our challenges and achieve the goals that we are setting for ourselves.

The profile farmer this month is Samuel Moloi – what an amazing example he is to other farmers. He owns no land despite all his efforts to get the Department of Rural Development and Land Reform to assist him with land. A number of times he has identified a farm and negotiated with the farm owner – he then approaches the DRDLR to assist him and they give the land to another farmer! And in spite of this he continues to be an excellent and committed, successful commercial farmer. May he inspire many other people to keep trying and eventually he will succeed.

December is a month for hard work as well as celebrations. Most of the maize will be planted by now, but the sunflower and dry bean farmers will be planting their crops with great hope. It will soon be Christmas – the development team of Grain SA wishes you a very blessed Christmas and we hope that 2015 will be a year that brings peace, joy and happiness.

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Farmer development showcased and acknowledged

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Here we have the New Era Commercial Farmer of the Year- winner, Ralph Swart and his wife, Preline, with left, Toit Wessels (Grain SA Member Marketing, Western Cape) and Liana Stroebel (Grain SA Development Co-ordinator).

During Grain SA's annual "Day of Celebration" farmers who have managed to pursue their dreams against all the odds were given the recognition they deserved. The function was held in Bloemfontein.

While giving an overview of the Farmer Development Programme, Ms Jane McPherson (Manager of the programme at Grain SA) compared it to a taxi with 4 663 passengers (participants in the programme) and 126 pit stops (study groups). "In this journey that we are on, we move from one place to the other. We arrive at one destination and then we have our eyes on the next destination. In our programme we view our farmers as being on a journey too. At the starting point of the journey we see people with a need for knowledge, a need for structures, and a need for applied knowledge. Today we celebrate those that are travelling well along their road to their farming destination," she said. McPherson also claimed that these farmers can't do without financial support: "Farmers need mechanisation, they need production financing and they need input insurance."

Regional Co-ordinator at Grain SA, Danie van den Berg said that all farmers can't be judged on the same level and that each farmer should be given a fair chance. "The main objective of this programme is to teach them to do things correctly and show them how things look if they are not done correctly. The aim of the program is to help them fulfill their dreams," he claimed.

Bennie de Klerk (Agent at Profert) encouraged farmers to make use of specialists and to form partnerships with them. "Agriculture is a very competitive business and mistakes will cost you dearly. There aren't any shortcuts." He also told the farmers to make work of their marketing as it is the big factor that is causing farmers money.

Israel Mothlabane (Farmer) also explained his road to producing more than 1 500 tons while representatives of the sponsors Ernst Janovsky (Head: Absa AgriBusiness), Mphilo Dlamini (Corporate Affairs Manager: Syngenta), Magda du Toit (Corporate Communication Manager: Monsanto) gave messages of support to the farmers.

And the winners are…

The category winners were as follows:

Enoch Khumalo – Subsistence Farmer of the Year (farmers who produce on 10 hectares of property or less)

Enoch worked as a farm worker for about 30 years, mainly with sheep and cattle. He now farms in the Piet Retief area in Mpumalanga and has managed to plant 3 ha of maize and is expecting to harvest more than 6 tons/ha.

Lungelwa Kama – Smallholder Farmer of the Year (from 10 hectares to producing 250 tons)

The Department of Rural Development and Land Reform made a farm in the Eastern Cape available to Lungelwa and also provided a few implements. The farm given only has 35 ha of arable land but the Kama's have managed to hire an additional 70 ha of good arable land. This year, Lungelwa has planted 100 ha of maize and in some areas the expected yields exceed 8 tons/ha.

Ralph Swart – New Era Commercial Farmer of the Year (Producing more than 250 tons)

Ralph was the first and only finalist from the Western Cape producing wheat (220 ha at 3,2 tons/ha), barley (100 ha at 3,5 tons/ha), oats (40 ha at 2,2 tons/ha), triticale and rooibos tea. Ralph's livestock compromises of 1 500 ewes and 140 Bonsmara cows.

Club categories graduations for farmers producing more than 250 tons, 500 tons, 1 000 tons and 1 500 tons respectively, were also held and farmers who have moved on to the next category each received a certificate and a badge.

We would also like to thank Monsanto for their support and contribution to farmer development.

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Photo 2: The finalists in the New Era Commercial Farmer of the Year-category were: Pieter Chabalala, Michael Ramoholi, Job Metswamere and Ralph Swart (accompanied by his wife, Preline).

Photo 3: TD Mosai and KB Lesia received their certificates and badges for graduating into the 250 Ton club.

Photo 4: William Matasane (right) was the only farmer to graduate to the 1 500 Ton club. He called his mentor, Israel Mothlabane to the stage to thank him for his support.

Photo 5: Langa Simon Mbele, Lungelwa Kama, Willem Modukanele (here accompanied by his wife, Maletzoku, and Dwaalkraal Co-operative (here represented by Allman Mpomela and Michael Phamola) were the finalists in the Smallholder Farmer of the Year-category.

Photo 6: Sunflowers are in her blood! Annah Mutloane received her certificate to join the 1 000 Ton club.

Photo 7: The Subsistence Farmer of the Year finalists were Thoko Matha, Gladys Zondo and Enoch Khumalo.

Farmer development showcased and acknowledged

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Photo 8: Representatives from the Mafabatho Farming Business received their certificate for graduating to the 500 Ton club.

Photo 9: An ecstatic Ralph Swart, winner of the New Era Commercial Farmer of the Year, receives his award.

Photo 10: JO Masombuka and TM Mbele were two of the farmers who graduated to the 500 Ton club.

Photo 11: Here we have all the winners: Lungelwa Kama – Smallholder Farmer of the Year, Jannie de Villiers (CEO: Grain SA), Preline Swart (Ralph's wife), Ralph Swart – New Era Commercial Farmer of the Year, Victor Mongoato (Vice Chairperson: Grain SA) and Enoch Khumalo – Subsistence Farmer of the Year.

Photo 12: Magda du Toit (Corporate Communication Manager, Monsanto SS Africa) gives a message of support to the farmers.

Photo 13: The New Era Commercial Farmer of the Year- winner, Ralph Swart (middle) with his wife, Preline, and Ernst Janovsky (Head: Absa AgriBusiness).

Photo 14: Absa was the main sponsor of the Grain SA/ABSA Subsistence Farmer of the Year and New Era Commercial Farmer of the Year. Here the Head of Absa AgriBusiness, Ernst Janovsky, addresses the farmers.

Photo 15: Mphilo Dlamini (Corporate Affairs Manager: Syngenta) and Jannie de Villiers (CEO: Grain SA) next to the proud winner of the Smallholder of the Year category, Lungelwa Kama.

Article submitted by Elmarie Helberg, SA Graan/Grain editorial team. For more information send an email to elmarie@infoworks.biz.

How do I decide what crop to plant?

This year I am going to plant maize, no, maybe I should plant beans or perhaps I should consider planting sunflowers...This is NOT what your decision making should sound like when it comes to deciding what crop to plant.

Deciding which crop to plant can sometimes be planned a few years in advance when working according to a structured crop rotation plan. Be that as it may, some years our plans need to change according to numerous factors such as weather, disease and the market.

When devising your crop rotation plan it is good to consider a few things:

- Location;
- Climate;
- Access to market;
- Market demand for different crops;
- Soil types; and
- Common diseases.

Many crops can only grow in certain locations under certain climatic conditions; therefore you want to avoid planting any crops which will not perform well in your area.

The next factor to consider is the access to the market. This will have a large effect on the profitability of the crop as transport is a big expense. Most large crop producing areas of South Africa have made central co-operative points where you can easily deliver your crops to and they will store them in large silos until sold. Determine which crops the co-operatives handle; these should be your first crop options. Alternatively if you decide to plant a crop which your co-operatives do not handle then it will be your sole responsibility to find a market for your product.

A farmer should be an excellent researcher, when deciding which crop to plant you need to do as much research as possible on demand for products, consumption trends, global supply, market trends, crop prices and projected crop prices. All these decisions play a large part in the determining of which crop to plant.

On the farm we also need to look at various things such as soil types. Certain crops prefer certain soil types for example; maize grows best in well drained soils which are deep and red and brown in colour whereas sunflowers can grow in a wide range of soils and perform better than maize on clay and sandy soils.

Diseases are also something which farmers should always be keeping track of. Different crops are more susceptible to different diseases. If it is noted that there are certain diseases which seems to be prevalent, it may be a good idea to plant a crop which is less susceptible to disease. Maize can be susceptible to a number of diseases such as Grey leaf spot, Blight and Diplodia to name but a few. But a crop such as soybeans however is very hardy and resistant to many diseases.

Sometimes a farmer may have planned his crop rotation well in advance but then unforeseen circumstances arise which force him to change his plans accordingly. An event such as a drought early on in the season which prevents a farmer from getting into the lands to plant may force him to plant a crop which has a shorter growing lifespan. For example if a farmer was planning on planting maize but the area cut-off date to plant maize is in December and he still has not managed to put a pip in the soil, then he will need to look at planting an alternative crop. This can be an inconvenience because usually different chemicals and fertilisers will need to be ordered. Possible alternatives would be dry beans or sunflowers which have a much quicker growing cycle than maize.

If a farm has livestock to feed through the winter, farmers may consider planting some of their arable land to feed for animals. There are numerous fodder crops which can be planted in rotation with cash crops. Many of these crops can even be planted in the early autumn after the cash crop has been harvested while there is still enough moisture in the soil for a winter fodder crop to grow. An example of this is oats which can still grow significantly into the early winter and thus provide valuable green feed. Other fodder crops which can be planted are Japanese radishes, sugar graze, sterling rye grass and millet. The planting of cover crops in the winter is also good practice as it conserves top soil and prevents lands from crusting too much in the sunny dry winter months. Many farmers who practice no-tillage systems will plant directly into the stubble of the fodder crop the following season.

Farming is an enterprise where you always need to be thinking on your feet in order to make quick decisions where needed. Nature is a huge determining factor in agriculture and we need to adjust our plans according to what nature throws at us each season. Determining what crop to plant each season is just one of these decisions which may need to be changed from time to time.

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

There are many factors to consider when planning which crop to plant.

How will we feed all these mouths?

Over the next thirty years it will be necessary to produce the same amount of food than has been produced during the past 10 000 years combined. How will we feed all these mouths?

Year after year farmers and suppliers are faced with the challenge to sustainably produce adequate food, clothing and fuel with limited resources for millions of people. At the same time they are expected to keep up with input and commodity prices, new technological developments and legislation.

Monsanto annually invests significant amounts of money in seed and gene research to cope with global challenges and promote sustainability. The aim is to assist farmers to cope with the demands made on them. Monsanto places great emphasis on the development of genetics for new, improved hybrids and varieties which can increase yield as well as on improved cultivation practices to utilise the land better and more sustainably.

The availability of biotechnology makes it easier for farmers to move in the direction of conservation tillage as it offers unique opportunities to effectively apply weed control.

After 40 years of research and development in agricultural biotechnology, it is now evident that GM crops are helping agriculture enter a new era of efficiency and sustainability. Monsanto launched its sustainable yield initiative in 2008 which aims to develop improved seeds that will double the yield of maize, soybeans and cotton between 2000 and 2030.

After more than 15 years of production worldwide, there have been no adverse effects of GM crops documented. In fact, GM crops provide a healthier environment by saving on pesticides and decreasing greenhouse gasses. Monsanto is proud of its efforts to help improve productivity on the farm and food quality whilst at the same time reducing agriculture's footprint on the environment.

Read more at *www.monsanto.com* or at *www.producemoreconservemore.com.*

Article submitted by Magda du Toit, Corporate Communication Manager, Monsanto SS Africa. For more information, send an email to magda.du.toit@monsanto.com.

Pula Imvula's Quote of the Month

" The future depends on what we do in the present. "

~ Mahatma Ghandi

Wheat production factors for DECEMBER

December is an important month for both dryland and irrigation wheat farmers. Harvesting of the June to July planted dryland wheat in the Free State will have taken place in November through to December. The irrigated wheat crop in the Free State and on the Northern Cape irrigation schemes will be harvested during early to middle December.

Western Cape farmers would have harvested during October and would have probably finished delivering their crop by November.

The market

Uppermost in the minds of farmers would be the ruling market price, quality of the wheat harvested and final marketing and sale of the crop on hand.

The Western Cape is the out and out leader in area planted for the 2014 production year in South Africa coming in at 65% of the total area planted of 476 570 hectares. This increasing trend continues with this percentage up from 36% of South African production realised in 2005. The overall hectares planted to wheat have declined by 28 930 hectares over the 550 000 hectares planted during the 2013 production period.

Of interest to note is that of the 69 500 hectares planted in the Free State only about 38 500 hectares of dryland production remains. Most of this occurs in the Eastern Free State.

Prices and profitability

Once again some farmers would have been able to hedge on the futures market themselves or through their local co-ops and would have done better than the ruling spot price. Futures contracts on Safex are ran from R3 600 per ton for bread milling wheat during October, are R3 639 per ton for December, R3 709 for March 2015 and R3 744 for May 2015. With these forward market prices it is probably not worth storing your crop as the increased values reflect handling and storage costs over the period.

> *"Uppermost in the minds of farmers would be the ruling market price, quality of the wheat harvested and final marketing and sale of the crop on hand.*

It will be your advantage to negotiate the best spot values with a buyer or your co-op as you deliver the crop.

If the different transport differentials for the Western Cape and the other production areas are taken into account the net values received for wheat, in the farmer's pocket, could be in the range of R3 220 to R3 510. The distance of your farm from the Safex registered Silos has thus a large influence on the net price received by farmers.

Western Cape wheat ready for harvest.

It must be asked how many dryland farmers can produce wheat profitably at the current ruling market prices. The estimated Eastern Free State dryland crop could be between 1,5 to 2 tons per hectare if further rain was received during October.

The production costs for irrigated wheat would also have to fine-tuned. Assuming a production average of 6,5 tons and the very variable price received by each farmer the income per hectare could range from R20 930 to R22 815. Irrigated wheat farmers will also have to critically evaluate the potential for profitability of the next wheat crop depending on their average yield realised over the last seasons.

Transport differentials

The differential prices can be looked up on the Safex website. (Click on Agricultural derivatives and then on Silo's in the menu options shown). The differentials per ton are shown on one sheet for the Western Cape and on another for the balance of production areas.

At least be aware of what the differentials are for delivery from your farm to the nearest Safex registered silo before you finalise the price to be received for your crop. Make sure that you have samples tested for quality before delivery so that you have an opportunity to clean or sieve the crop so as to obtain the highest grade possible under the circumstances. Farmers who do not have their own handling and storage facilities need to have a good relationship with their local silo operator. The farmer must know what will be the final grade for his wheat crop at the point of delivery before the crop is finally cleaned, sieved of small pips and other foreign materials, and taken in for storage.

Harvesting

If you are still busy harvesting take regular moisture tests so that the crop can be harvested at 14% or below. The golden rule for wheat production is to harvest immediately as the moisture content is at an acceptable standard. Late rains in the Eastern Free State can hamper the harvesting of the crop at the optimum time.

Make sure that you have attended to the maintenance of your wheat combine if you have not yet started harvesting. Confirm the arrangements with your custom harvester to ensure that his combines are at your farm as soon as your crop is at the correct moisture level to be cut.

It is critical to maximise the return for the current crop, taking into account the relatively low price prevailing in the market.

Planning for next season

When the current crop has been harvested the realisation of yield and price received will enable you as a dryland or irrigated wheat farmer to decide whether or not wheat production will fit into your production planning for the next season.

> *"It will be your advantage to negotiate the best spot values with a buyer or your co-op as you deliver the crop.*

Dryland farmers who wish to discontinue wheat production should consider planting a late "catch crop" of sunflowers or bring the wheat lands into the fodder flow planning for your livestock operation. The lands can then be brought into summer crop production in the next production cycle. At the current, relatively low, market prices for maize and other crops, an accurate evaluation of the yield potential of the lands on your farm and detailed gross margin planning should be done. The decision to continue with wheat production or to make a change to the optimum basket of crops for your farm can then be made logically and rationally.

Article submitted by a retired farmer.

Practical aspects of verbal communication when using a phone

In our series of articles of management we have discussed the management of various aspects of a farming business. To refresh your memories, remember the business of farming is to produce products that people need, at a profit by combining and converting the four production factors, namely land, capital, labour and management into useful products such as food and/or fibre.

A first point of departure of all articles has been that profits must be sustained over time. Profits being: **Profit/Loss = Income - Expenditures.**

Secondly, in terms of a business, everybody involved with the business, be it owner/'s, managers or employees, does through what they do, or do not do what they should do, affect the profits of the business.

Thirdly, portraying of a positive image (inter alia people or other businesses appreciate doing business with you) will be to the advantage of your business.

There are very few skills as important to a manager as the ability to communicate verbally very well to portray a positive image of a business. At least 80% of a manager's working hours are spent in verbal communication.

Being in the electronic era much of our verbal communication is per phone – cell or otherwise. But it is necessary to manage your calls because unnecessary use of a phone will affect the profits of your business negatively. Not much per call but over a year it can be substantial. And how you communicate per phone portrays an image of yourself which can be positive or negative and will have an effect on your business.

Every phone call, whether incoming or outgoing, is an opportunity for you to portray a positive image. Your aim should be to treat each call as a unique experience.

To portray a positive image when answering a phone:

- Always answer before at most five rings, preferably within three rings, apologise if you took longer to answer.
- Answer external calls professionally and especially do not use "hello" – in terms of a business call it is very unprofessional and sloppy.
- Smile before you pick up the phone. People can "hear" you smile over a phone.
- Find out the caller's name and use it during the conversation.
- Speak directly into the receiver.
- Use your voice to show interest and enthusiasm.
- Do not speak to soft or to loud and speak slowly and clearly, this will save time having not to repeat information.
- Listen carefully to the caller and acknowledge that you are listening.
- Leave all other things you are busy with when you answer the phone and concentrate on the call.

The following portrays a negative image:

- Treating the call as an interruption by being annoyed or tensed.
- Interrupting the caller.
- Speaking with something in your mouth – chewing something or smoking.
- The use of slang or offensive language.
- Speaking to a third party while answering the phone.
- Making promises and not keeping them – "I will call back. I will provide you with the information tomorrow."

THINK ABOUT THIS: In general do not answer or make a call in a public area close to other people or at least keep the call very short when you have to. It is inconsiderate of the privacy of other people.

To portray a positive image when making a call – manage the call by planning it properly. This will also save you call time and therefore costs.

1. Do you know **precisely** what you want to communicate? Make a list.
2. What **other interpretations** might be put on your message? Can you be misunderstood – and if so, how can you prevent this?
3. Is your **message complete, correct and appropriate** to the situation under review?
4. What **communication breakdowns** can surface? Avoid noisy places like a workshop, you may have to repeat the message or could be understood incorrectly, this will cost you time and money.

Thus, use a phone to your advantage – first impressions are lasting and when positive it can benefit your business.

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

MADE POSSIBLE BY THE WINTER CEREAL TRUST

Discover the cover

Crop residues left after harvesting.

Good soil cover.

The importance of cover on production soil needs to be a high priority, if not the highest priority, for any grain and/or livestock farmer. It does not matter how big or small the farm is, there should be no uncovered soil at any time during the year.

Soil should always be covered by growing plants and/or their residues, and soil should rarely be visible from above. It rings true for any type of land use (cropland, pastures, hayfields and veld). Just like your skin is protected by an outer layer or epidermis against the harsh rays of the sun and other elements, so our soil needs a protection layer. This protection layer is as previously stated either growing plants, or residues following harvest.

Soil cover protects the soil from taking a beating from falling raindrops, as well as preventing moisture loss through evaporation from the soil. When a raindrop hits the soil surface without there being cover, it causes the small soil particle to go into suspension in the water and that causes erosion and compaction of the soil. On the other hand if the rain drop hits cover, it breaks into smaller droplets that slowly run down to the soil surface off the residue without causing any negative effects on the soil. A mulch of crop residues on the soil surface suppresses weeds early in the growing season, giving the intended crop an advantage and saving the farmer money, since he/she does not need to spray herbicide as often. It also keeps the soil cool and moist which provides a favourable habitat for many organisms, which begin residue decomposition by shredding residues into smaller pieces. In winter the covered soil is warmer than uncovered soil.

Soil is a living organism and not just a medium keeping a plant upright. The organisms range from earthworms to single cell organisms, which together form the soil food web. Soil organisms feed on sugar from living plant roots first. Next they feed on dead plant material, followed by residue on the soil surface. If none of the above is available they will feed on the humus (broken down organic matter) in the soil. We have to try and make sure that there is enough food available to the organisms so that they need not feed on the humus. If we provide enough easily accessible food to the soil microbes, they help cycle nutrients that plants need to grow.

It is therefore important to make sure that we do not sell our residue to the farmer next door, because we are starving our soil microbes and it leaves the soil vulnerable to the elements. Remember for each 1% increase in the carbon content of your soil, the water holding capacity is doubled and the carbon can only be increased by the very organisms and plant material in and on top of your soil.

So discover the cover and be sure to benefit from improved soil health and in turn, healthier crops.

Article submitted by Dr Johann Strauss, Directorate Plant Sciences, Elsenburg, Western Cape Department of Agriculture. For more information, send an email to JohannSt@elsenburg.com.

Managing stress

Stress is a feeling of being unable to cope with certain demands in your life or with the inner demands set for yourself.

Stress challenges the individual's physical and mental resources and adjustment capabilities, although some forms of stress typically has the potential to do more damage. We therefore differentiate between positive and negative levels of stress.

Although it is impossible to eliminate all stress from daily life, it is possible to control the effect that stress has on the body and the mind.

In modern day life, sources of stress can range from something insignificant such as an irritating noise to a major life changing event like the death of a family member. To effectively manage stress levels in your life, it is important to identify the sources of stress in your life and the effect it has.

Because we differ in personality traits, life experience and the way we perceive sources of stress, we will differ in the way our bodies and mind respond to stress.

The following symptoms can be signs of stress:

Physical

Excessive sweating, dry mouth, muscle spasms, headaches, stomach ulcers, high blood pressure, decreased sexual energy, constant fatigue, increased appetite, excessive urinating and indigestion.

Intellectual

Inability to make decisions, poor concentration, memory loss and negative thoughts.

Social/emotional

Poor relationships, low productivity, high incidence of accidents, increased absenteeism, lack of motivation, irritability, emotional outbursts, impatience and aggressive behaviour.

Healthy ways to deal with stress include:

- Regular physical exercise;
- Regular rest, breaks, time out;
- Enough sleep;
- Good eating habits;
- Find someone to talk to;
- Make time for family, friends and hobbies;
- Saying no (don't over-commit yourself); and
- Time management (plan and prioritise both in your personal and work life).

Stay clear of the following unhealthy ways to deal with stress:

- Avoiding responsibilities;
- Hyper-activity;
- Chronic work habits like taking work home, excessive overtime, staying at work rather than going home; and
- The use/abuse of drugs, medication and other substances (e.g. alcohol, tobacco, caffeine) to cope with stress.

Why should we manage our stress levels effectively?

A cause-and-effect relationship exists between stress and depression. Struggling with ongoing stress increases the potential for depression. On the other hand, depression lowers the ability to cope and any small daily challenge may trigger unusually high levels of stress. Ongoing stress therefore might lead to medical conditions including depression.

Depression can be described as a general feeling of helplessness, sadness and overall feeling of being down. Life has its ups and downs, therefore it is normal to feel down or depressed in the context of depressing events or circumstances. However, some people become severely depressed even when things appear to be going well and they encounter mildly upsetting situations.

If you experience the symptoms below for longer than 14 days without any apparent reason (e.g. loss of a loved one, financial problems, substance abuse, medical problems or any other misfortune) you should seek professional advice.

- Loss of interest in usual activities;
- Poor concentration;
- Indecisiveness;
- Preoccupation with death;
- Thoughts or acts of suicide;
- Guilt feelings;
- Increased restlessness;
- Tearfulness/crying spells;
- Chronic fatigue, lack of energy;
- Social withdrawal (no interest in friends, family etc.);
- Increased or decreased appetite;
- Disturbed sleep, (sleep too much or too little);
- Decreased sexual drive;
- Weight loss or gain;
- Difficulty getting up in the morning; and
- Persistent periods of feeling down or sad.

It is important to note that despite traumatic events the above symptoms should not go unattended for more than two months.

If you think you are suffering from stress or depression seek professional help as soon as possible.

(Sources: www.livestrong.com; Dr Helgo Schomer: Managing stress in the Workplace).

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

Roundup as herbicide has benefits

The active ingredient (glyphosate) in Roundup is a non-selective herbicide that controls most of the broadleaved weeds and grasses.

In the first place it is important for farmers to understand the technology and operation of the herbicide in order to obtain the optimum benefit from the use of Roundup.

It is important to understand that broadleaf Roundup can be used only on certain maize and soybean cultivars that contain the Round-up Ready gene. Ordinary maize and soybean cultivars that do not contain the gene will therefore be killed by glyphosate.

Weed-control programme

Maize is cultivated in different areas in South Africa. These areas differ with respect to climate, types of soil, rainfall and other factors. Plant density, weed density and weeds also differ from farm to farm. It is therefore very difficult to prescribe one weed-control programme for all the different areas where maize is cultivated. In the eastern areas, where plant density is higher and weed density is higher at the beginning of the season, it differs totally from the western areas of the country, where plant density is lower and where problem weeds germinate only later on. As there are so many variables, other herbicides must also be used together with glyphosate in order to obtain better control during planting and after emergence.

In certain circumstances one application of Roundup will be sufficient, while in a wet year more than one application may be necessary. However, what is important is that weeds must be controlled before they exceed 10 cm in height. Do not wait too long before your first spraying.

Roundup must be mixed with clean water, as glyphosate reacts with soil particles in dirty, muddy water, which makes it inactive. If clean water is not available, a fine cloth can be used to filter the water before it is used.

Resistance

Farmers can no longer use glyphosate alone, therefore it is important to use other herbicides as well in order to avoid weed resistance. Any field can have a few plants that can build up resistance against glyphosate and other herbicides. These resistant plants can later dominate a field if the prescriptions on the labels are not adhered to, or if farmers do not use the correct strength of the glyphosate. By disregarding recommendations, or by using less than the prescribed dosage, weeds will build up resistance.

Ryegrass in maize.

Calibrating the sprayer.

Good weed control.

Remember to read the labels carefully.

If a too high dosage is used, selection pressure is applied and plants that survive will reproduce and multiply.

Remember that the weed that is the most difficult to control, determines the dosage.

In fields where grass is a problem, glyphosate can be sprayed at 6 litres/ha at the beginning of the season when grass starts to grow actively. Farmers can even spray three times against grass where Round-up Ready maize is used, but then the recommended dosage of 1,7 litre/spraying must not be exceeded.

Substandard products

Nowadays many different companies manufacture glyphosate, and not necessarily with the correct quality or quantity of the active ingredient in their product. Farmers are also not clear about using glyphosate.

- Roundup 360 g/litre – 6 hours until rain proof. (Not recommended for maize and soybeans).
- Roundup Turbo 450 g/litre – 2 hours until rain proof. (Recommended for maize and soybeans).
- Roundup Powermax 540 g/litre – 1 hour until rain proof. (Recommended for maize and soybeans at 1,7 litre/ha).

Although Roundup 360 is not recommended for maize and soybeans, it is sometimes used, but then the following formula must be used:

- 1,7 litre x $\frac{540 \text{ g/litre}}{360 \text{ g/litre}}$ = 2,55 litre/ha

If Roundup 450 g/litre is used:

- 1,7 litre x $\frac{540 \text{ g/litre}}{450 \text{ g/litre}}$ = 2,04 litre/ha

It must be noted that after the 8-leaf stadium in maize, glyphosate must be sprayed on the base of the plant and not on the rows, as it can cause damage.

It is important for the farmer to know that he can receive help from his local chemical representative and that this can save him a lot of damage and money, because it is free to ask.

Article submitted by Jurie Mentz, Provincial Co-ordinator, Vryheid, KwaZulu-Natal. For more information, send an email to jurie@grainsa.co.za.

What do we know about the African stalk borer, *Busseola fusca*?

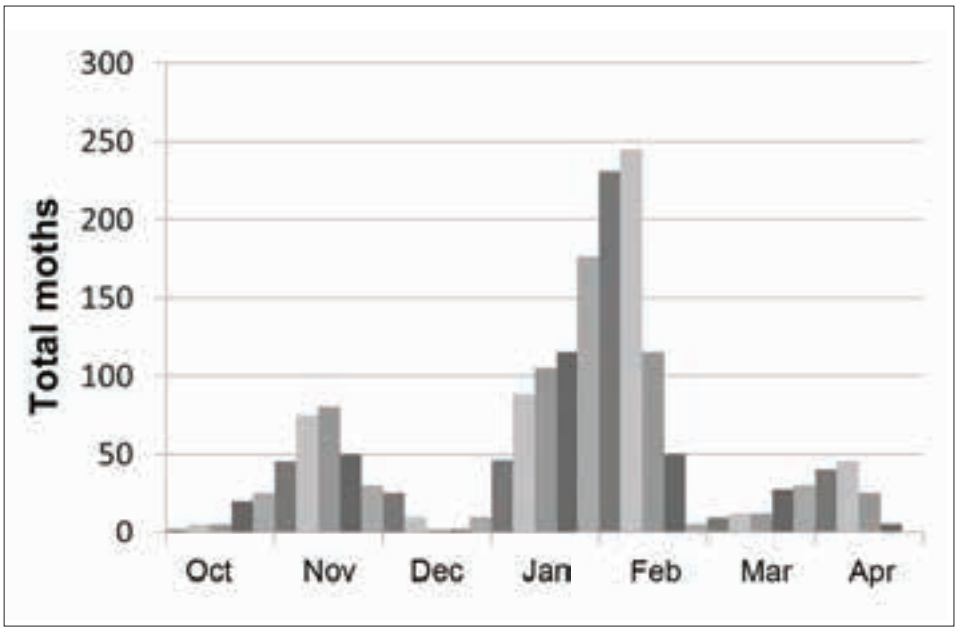
The African stalk borer, *Busseola fusca*, was named and described by Fuller in 1901, but stalk borer damage was reported by JB Hellier in the Cape Colony as far back as 1891 as the caterpillar that attacked young maize plants, and later as a caterpillar that attacks the ears.

Before the use of insecticides became popular, cultural practices like ploughing in maize residue or burning the stubble (**Photo 1**) were the norm.

From the 1970s to the 1980s a more integrated pest control approach was followed. During this period, research on B. fusca included ecology, insecticide applications, time of application, seasonal moth flights monitored by capturing up them in traps using a light to attract them, damage leading to loss of crops, and monitoring of moth flights with synthetic sex pheromones.

The development of pheromones (secreted by the female moths to attract the males) and pheromone traps led to easier monitoring of moth flights in order to administer insecticides at the right time. In the 1980s three demarcated moth flights per season were reported (**Graph 1**) – the first in November, the second late in January and a small flight in April, differing from east to west because of the temperature gradient.

Graph 1: Representation of three possible demarcated moth flights of B. fusca.

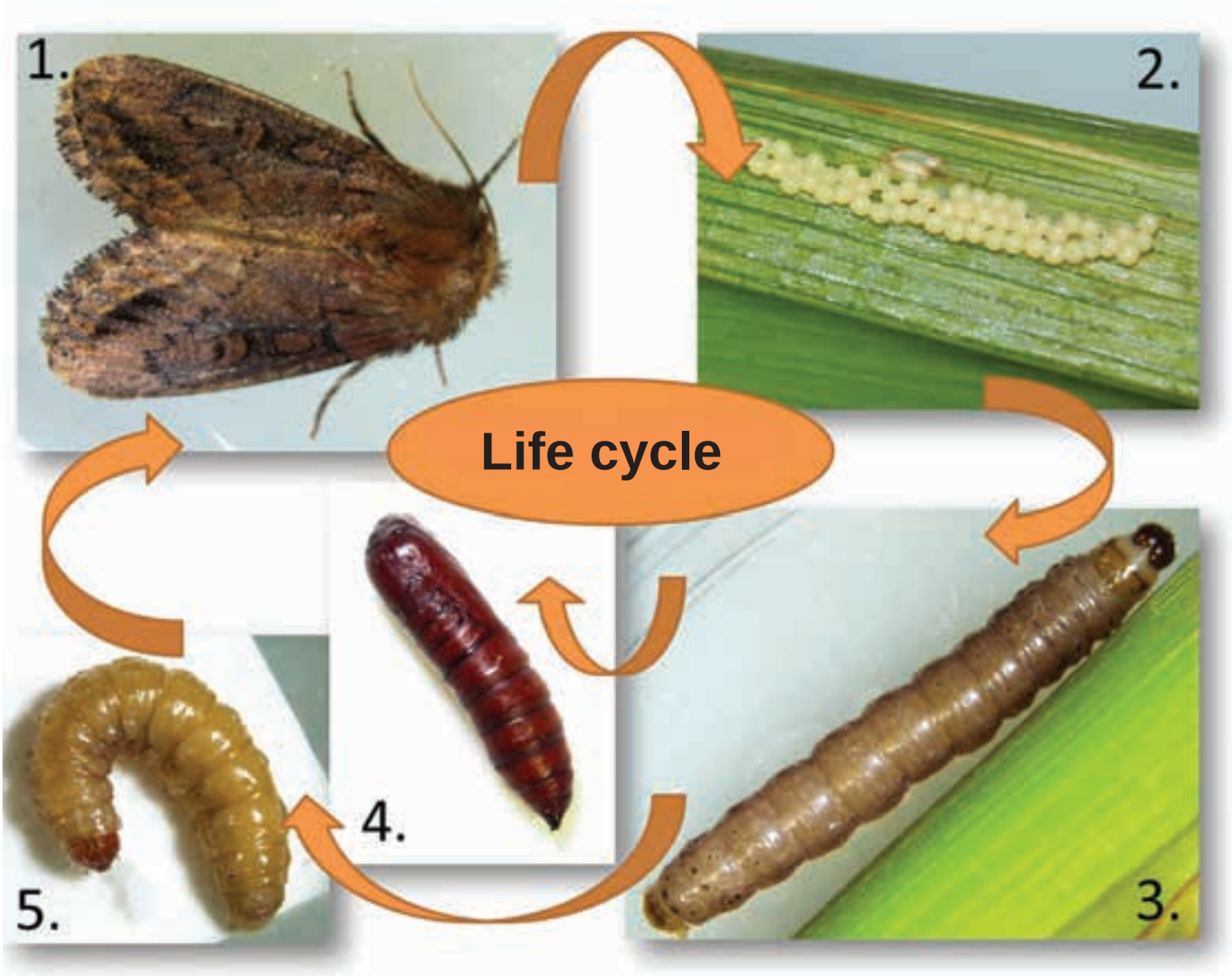


These moth flights are still used as guideline today, but the question is: could the situation have changed as a result of climate change, amended planting dates or an increase in the crops planted are under centre-pivot irrigation? Compared to the first control techniques, where the proverbial cart still had to be put before the horse, a single gene is used these days to control stalk borers.

Since the advent of genetically modified Bt maize to control the three main stalk borers, B. fusca, Chilo partellus and Sesamia calamistis, insecticides and their development have received less attention.

In 1994 different events of Bt maize spliced with Cry proteins were assessed the first time in South Africa to control stalk borers

Photo 1: From the olden days: maize stubble being ploughed in.



The life cycle of Busseola fusca: (1) moths lay eggs in (2) egg clusters behind the leaf sheath. The eggs hatch and produce (3) larvae that feed in the calyx and later migrate to the stalk. Larvae become (4) pupae in the stalk, after which the moths hatch, leading to the second generation of the season. In the last cycle for the season, (3) larvae do not become pupae, but (5) diapause larvae that survive in the maize stubble through the winter to turn into pupae after the first spring rains and produce the moths in the next season.

B. fusca and C. partellus. The most effective event that controlled both B. fusca and C. partellus was the one that spliced with Cry1Ab proteins. Shortly afterwards, in 1998, the first Bt maize was commercialised in South Africa.

The first sign of B. fusca survival in Bt maize was reported seven years after the release of Bt maize. The poor planting of refuges was one of the main reasons for the development of resistance, but this cannot be seen as the only cause. The guidelines for planting the refuge are, option 1: A 5% refuge of non-Bt maize where stalk borers may not be chemically controlled, or option 2: A 20% refuge of non-Bt maize where chemical control may be applied. These guidelines are still valid and must be applied to Bt maize plantings.

After the concerns regarding the development of resistance, new events were studied to control the resistant larvae. A new instance of spliced Cry1A.105 and Cry2Ab2 proteins was identified as able to control resistant B. fusca larvae. It was released in 2011. The development of resistance led to major research questions and the revisiting of B. fusca ecology in order to increase the lifespan of new technology. The ARC-Grain Crops Institute (ARC-GCI), in conjunction with the North-West University, is currently assessing research questions and conducting applied research to obtain possible answers.

Before Bt maize was planted in South Africa, chemical control was the basis for stalk borer control. The economic threshold value for this control is when 10% of the plants in the field show calyx damage. Only then will be it be economically justifiable to apply an insecticide.

The producer should therefore not spray when the first signs of stalk borer damage appears. As a major part of the life cycle of both types of stalk borer is spent in the calyces and it is relatively easy to reach them there with insecticides, calyx application is the most effective method of controlling stalk borers.

However, producers want to know how to control stalk borers that survive on Bt maize. In the first place producers should monitor their Bt fields over time for stalk borer damage. If they observe stalk borer damage, they should report this to the seed company concerned.

If the producer is aware of resistance problems in the area, it would be wise to use the new cultivars that make use of Cry1A.105 and Cry2Ab2 proteins.

Article submitted by Dr Annemie Erasmus, ARC-Grain Crops Institute, for SA Graan/Grain December 2013. For more information, send an email to erasmusa@arc.agric.za.

ADDITIVES FOR HERBICIDES: Misconceptions and best practices

Additives are commonly used in tank mixtures together with several types of pesticides to promote the action of pesticides. By far the biggest volume of additives used with herbicides is aimed at wetting weeds optimally and/or promoting herbicide absorption through the leaves of the weeds.

The damage done to weeds by herbicides with contact action is limited to a great extent to those parts of the plant with which the spray drops come into contact – e.g. paraquat and glyphosinate, which have a limited translocation in plants and their effective action consequently depends on thorough wetting of the target.

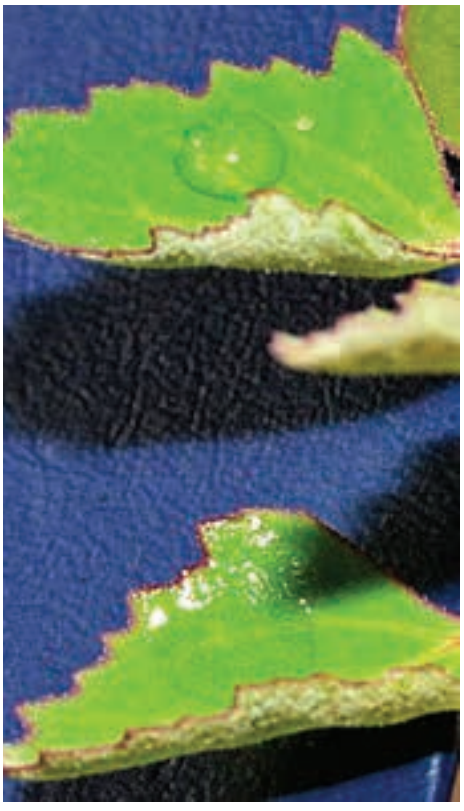


Photo 3: This photo clearly shows the principle of additives. Without a wetting agent the drops are round and make poor contact with the leaves, but with the wetting agent added, they spread out and cover the leaf properly.

Systemic herbicides (such as glyphosate and 2,4-D) are mobile inside plants and their effective action depends to a great extent on the amount absorbed by the leaves of the weed and the speed at which this absorption takes place. Like most plants, weeds are equipped with structures and materials on their leaf surfaces that are aimed at repelling natural enemies, harmful substances and inhibiting conditions – see **Photo 1**.

The main groups of additives for herbicides are the following:

- Buffers and acidifiers;
- Saline additives;
- Wetting agents;
- Oils;
- Spreaders; and
- Deposition aids (anti-drift).

Although additives have been used for decades, various misconceptions still exist about their properties and uses – at least in South Africa – and this is definitely the group of agricultural chemicals about which the least information is available.

This article discusses the top ten misconceptions around additives so that confusing information can be eliminated in order to ensure that these often underestimated products can be optimally utilised.

Top 10 misconceptions

Misconception 1: Buffers should be standard practice

The adjustment of the pH (acid/alkaline quality) of water used to mix sprays has been common practice for several years. Water quality is important, as in most cases water constitutes more than 90% of the spray mixture (e.g. 2 kg of product administered in 200 litres of water = 1% product and 99% water).

Certain herbicides are sensitive to either low-pH (acid) or high-pH (alkaline) spray water. Some herbicides are chemically reactive (unstable because of reaction with chemical compounds in spray water) at a water pH of higher than 7 (alkaline condition), while other types of herbicides are unstable in acid conditions.

The sulphonyl urea herbicides can be harmed by a low water pH (acid) and work better in water with no added buffers. A low pH can also sometimes cause physical incompatibility between products in the spray tank, which can lead to flocculation, precipitation and other adverse reactions. Mixtures of glyphosate and hormone herbicides (e.g. 2,4-D and MCPA) tend to be incompatible if the spray solution is acid (see **Photo 2**).

Follow label guidelines in this regard at all times and use buffers only in combination with those products for which they are registered in terms of Act 36 of 1947.

Misconception 2: Buffers reduce the pH of all spray water to predetermined levels

Misunderstandings about this can lead to poor weed and pest control. For example, certain groups believe that if the buffer is added in the recommended dosage, the pH of the water will change to a specific value, e.g. pH 5. Remember that different water sources have varying buffer capacities, and that buffers do not always react the same way in different water sources.

The buffer usually reduces the pH of water to a level somewhere in a range of pH values, for example between pH 4 and pH 6. Good quality buffers will reduce the pH of most water sources in South Africa to a designated range. There are outlier water sources where even good quality buffers sometimes struggle to achieve the desired pH range.

Then there are also cases where the water contains few salts and has little buffer capacity. If the wrong buffer is used for such water, the pH of the spray water will drop too low. Be aware of the actual or measured water quality and make sure that the buffer can lower the pH to the desired level. A too high water pH can be harmful, but too low pH values can be just as harmful, although for different reasons.

Misconception 3: Organic acid buffers increase the electrical conductivity of spray solutions and are therefore harmful to salt-sensitive herbicides

Organic acid buffers usually smell like vinegar, and are the most common buffers on the market. Years ago a perception was created that these products harm herbicides because they increase the electrical conductivity (salinity) of spray solutions.

Acetic acid buffers do increase the electrical conductivity (EC) of spray solutions, but this is usually not harmful, because the EC is increased by neutral ions that have no harmful effect. The same argument applies to ammonium sulphate additives, which are used in combination with glyphosate. These products also increase the EC, but with beneficial ions. The statement that a high EC value is always harmful to herbicides is therefore totally untrue.

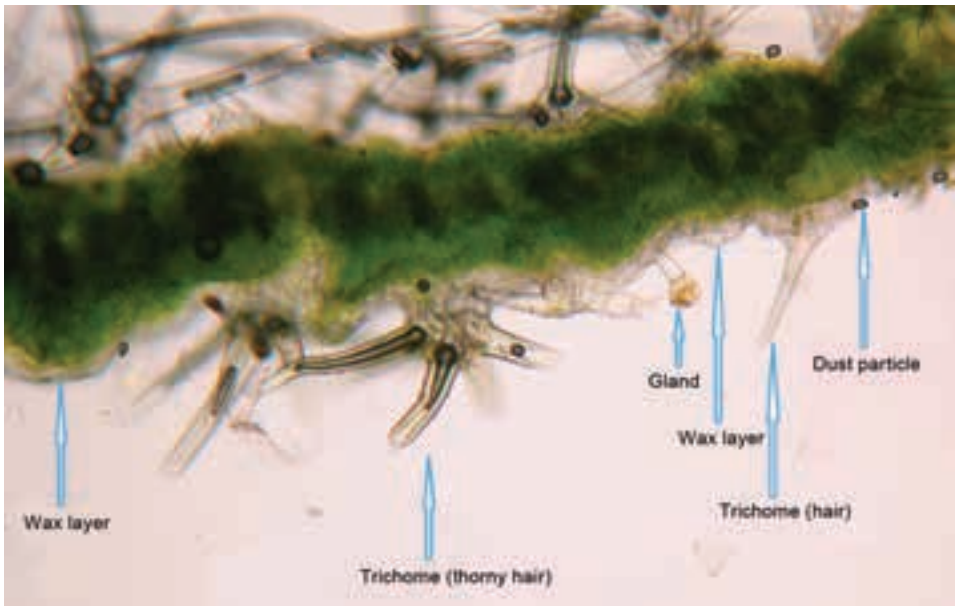


Photo 1: Hair, waxy compounds and dust particles on the leaf surface are naturally incompatible with the spray water part of a spray in particular. The aim of wetting agents or spreaders is to get the spray past those obstructions so that the spray water containing the herbicide can come into direct contact with the upper layer of cells, where absorption takes place (10x magnification; cross-section of bug-weed [Solanum mauritianum] leaf). Photo: Tsedal Ghebremariam

Photo 2: The flask on the left contains a clear solution of glyphosate and MCPA, which has been mixed at the correct spray water pH and enhances the optimum action of both herbicides; the other two flasks contain the same herbicide mixture in combination with two buffers that acidified the spray water pH too much, so that the mixture is murky. This indicates a loss of stability/action of one or both herbicides. Photo: Brian de Villiers

If the high EC value is the result of ions like calcium (Ca^{2+}), magnesium (Mg^{2+}) and sodium (Na^{+}), increased EC is harmful, because these ions can undergo a chemical reaction with active ingredients (such as glyphosate herbicide) and sacrifice activity, but if the high EC is the result of certain organic acids or ammonium sulphate, no disadvantages are involved. A high EC value is therefore not the problem, but it is rather the type of ion that causes the high EC that causes problems.

Misconception 4: Additives with multiple components are the most effective

Some people believe that additives with certain properties are always the most effective. It is not unusual for certain additives to possess wetting/spreading, acidification/buffer, rewetting as well as other properties. However, the mistake that is made is to assume that the product possesses the full extent of each property.

The more components with different properties are included in an additive formulation, the less of each is included in the formulation. In many cases an additive formulation can contain a great deal of one component, but then only a limited amount of the other components. These multifunctional additives are very handy and can also be very effective.

However, first ascertain whether the product contains all the properties you require of a specific herbicide. Buffers with ammonium sulphate additives that also contain wetting agents often contain too little of the wetting agent to carry out the full function of a true wetting agent.

Misconception 5: Wetting agents and oil additives destroy the layer of wax on the leaf cuticle (cuticle stripping), and cause crop damage

This perception is very common and even certain persons in the agricultural chemical industry allege this. Wetting agents and oils usually do not cause damage to crop plants. Both these groups of additives can moisturise the wax layer, or they can make the wax layer somewhat more soluble for increased herbicide absorption. It is therefore improbable that registered dosages of these products on their own can harm the crop.

In certain exceptional cases, like warm, dry weather conditions, oils can cause limited leaf scorch. However, in almost all the cases this is not the primary cause of the damage. Wetting agents and oils can increase the spreading of drops to such an extent that the herbicide is concentrated on a certain part of the plant and scorches the leaf. Warm, dry conditions cause the spray water to evaporate quickly from the spray and high concentrations of active ingredients to form quickly.

If scorch occurs, it could be caused by the herbicide or another agricultural chemical in a tank mixture, and not by the additive. Even scorching as a result of herbicides seldom occurs, except in the case of a contact herbicide like paraquat.

Misconception 6: All additives in a certain group on the South African market are the same and therefore products can simply be compared on the basis of price and then purchased

This misconception is often the cause of poor weed control. The ammonium sulphate additives that are essential in combination with glyphosate are a good example of this. Some products contain 500 grams/litre ammonium sulphate, for example, and there are many products that contain considerably less. These products with a relatively low ammonium sulphate content are sometimes the so-called multi-functional products that contain additional additives.

Although the additional component in the multi-functional product can be beneficial, the ammonium sulphate concentration in the formulation is reduced to make room for the other components. The same applies to all the other additives in the multi-functional product. Do not compare additives only according to price, but

Additives for herbicides: Misconceptions and best practices

rather according to value for money, i.e. according to the contribution they will make to weed control.

Misconception 7: Certain unique additives are exempt from registration in terms of Act 36 of 1947

Like herbicides, fungicides and insecticides, additives must be registered and must have an L number. No additives are exempt from registration. If claims are made about the additives in a product, the product must have an L number. No agricultural chemical company will be able to support the weed control of their herbicides if an unregistered additive is used.

You should under no circumstances use such unregistered products. This can be an expensive lesson – poor weed control leads to reduced crop yield, and direct damage to the crop with the spray naturally also leads to losses.

Misconception 8: Using additives makes it possible to use lower dosages than those that are registered for the product

It is sometimes alleged that if certain additives are used, a lower, unregistered dosage of a herbicide can be applied. How many times have you heard the following statement: *"If my additive is used together with glyphosate, the glyphosate dosage can be reduced by half!"* If this statement is made, the red lights should start flashing immediately.

Additives are designed to optimise and stabilise the action of the herbicide under a variety of environmental conditions. It is not a way of reducing the herbicide dosages.

Chemical companies conduct years of research to identify the correct recommended dosage. Reducing dosages guarantees inadequate weed control, and this can also cause weeds to develop resistance against herbicides. In addition, reduced dosages are unregistered and therefore unlawful.

Misconception 9: Additives don't work

Unfortunately there are still people who believe that additives do not work and are merely an unnecessary component in the spray tank. This is a totally incorrect view, as the use of the correct additive can increase the effectiveness of a product (**Photo 3**). The contribution of additives is usually the biggest under suboptimum conditions like low humidity, or if herbicides are applied with poor quality water. Under optimum conditions the contribution of additives is usually less, but even a 5% to 10% increase in control can make the difference between acceptable and unacceptable weed control. However, it is important for good quality additives to be used at all times.

Misconception 10: Certain additives change the properties of herbicides

People often believe erroneously that certain additives will increase the reaction speed of glyphosate to such an extent that the herbicide will react in a totally different manner than usually.

Certain additives do have the ability to increase the reaction speed, but this difference is usually within certain limits. Any drastic deviation from a herbicide's usual reaction can be harmful to weed control, for instance an excessively rapid harmful effect on leaves can harm the translocation of the herbicide to the plant roots.

Additives are designed to complement the inherent efficiency of herbicides, in other words they can cause weeds to be controlled more effectively and even more quickly, but it is highly improbable that additives will make any drastic changes to the speed of the reaction of a herbicide.

The aim of additives is not to change the action of the herbicides. Most of these claims are groundless and are usually not based on scientific facts.

In conclusion: Remember

Herbicide additives that are applied directly to weeds are essential products, and if they are used correctly, they can make the difference between good and poor weed control. However, it is important to select the correct additive for a specific herbicide.

Remember that there are big differences in the formulation of additives. Never assess additives merely on the basis of their price. Rather choose a product that ensures the best value for money, because it will make the biggest contribution towards weed control.

For enquiries with regard to additives, please call Brian de Villiers on 082 880 0974, and for enquiries on herbicides/weed control, you can contact Prof Charlie Reinhardt on 083 442 3427.

Article submitted by Dr Brian de Villiers, Product Manager: Additives, Villa Crop Protection; Lecturer: Villa Academy, and Prof Charlie Reinhardt, Extraordinary Professor: Weed Science, Department of Plant Production and Soil Science, University of Pretoria; Dean: Villa Academy for SA Graan/ Grain December 2013.

The effect of nitrogen application levels on sweet sorghum yield

Since 2009, the ARC-Grain Crops Institute (ARC-GCI) has been involved with a European Union project named "Sweet Sorghum – an alternative energy crop".

As part of this project, the ARC-GCI endeavoured research to determine the nitrogen application rates needed for optimum sweet sorghum production. Nitrogen has an effect on the sugar content of the syrup and the sugars are the components which will be fermented into bio-ethanol.

Photo 1: Genotype differences.

Photo 2: Plant height differences among genotypes.

Photo 3: A Brazilian sweet sorghum genotype.

The trials

Up to this point in time, no such research had been done in South Africa because the initial concept was that the amount of syrup is important and not the sugar content of the syrup. However, a number of trials were executed to investigate genotypes regarding drought and temperature tolerance.

The nitrogen application trial started two years ago and some very interesting facts came to light. Results in the first year proved to be different from the common perception that the highest nitrogen levels will produce the best results.

The 2012/2013 year appeared more true to the norm. The 2013/2014 year will be the last year during which this interaction will be investigated. It is foreseen that once the trials have been finalised, results obtained will aid the industry by supplying answers into what application rates should be used for optimum sweet sorghum production to serve as an alternative bio-ethanol source.

For each of the two seasons, three cultivars were selected (2011/2012–S27, S120, PX174; 2012/2013 S868, S63, S120) – **Photo 1**. The trials were conducted at the ARC's experimental farm at Vaalharts under flood-irrigation practices.

The fertiliser used was ammonium sulphate which was applied at five nitrogen levels: 0 kg/ha (as control), 30 kg/ha, 60 kg/ha, 90 kg/ha and 120 kg/ha. Plant density was 5 kg of seed per hectare. Biomass, plant height, stalk diameter, syrup production and Brix percentage (sugar content of syrup) were measured and documented.

Results from the first year were inconsistent, indicating that the best yields were produced from a 60 kg/ha nitrogen application rate. Some genotypes even produced better at 30 kg/ha. During the 2011/2012 season, the S120 genotype did the best regarding biomass production at an application rate of 60 kg/ha.

Biomass is an important characteristic because a high biomass yield yields more syrup. Genotype S27 contained the highest sugar levels (Brix percentage) in the syrup and S120 yielded the most syrup.

The second year's results were more consistent and indicated that the highest application rate of 120 kg/ha produced the best results regarding biomass yield, sugar content and syrup yield. During the 2012/2013 season, S868 produced the tallest stalks with an average length of 2,75 m at a 120 kg/ha nitrogen application level. At an application rate of 120 kg/ha nitrogen, the S120 genotype did the best regarding biomass yields and syrup production due to its thicker stems. Genotype S868 contained the highest sugar levels (Brix) of 18,75 % at an application rate of 120 kg/ha (**Photo 2**).

An important quality factor is the sugar content of the syrup, because the sugars (total soluble solids) are fermented into ethanol. This ethanol can be used as a blending substance with fossil fuel to produce biofuel. The main requirement for first generation bio-ethanol production is a Brix of 16% and above.

This value is critical to the correct fermentation processes and the amount of bio-ethanol to be produced. Results showed Brix levels of 26,79%. The higher the syrup yield with the correct Brix, the higher the economical viability and sustainable value of sweet sorghum as an alternative energy source.

The genotypes which were entered into the nitrogen application rate trial are not the only sweet sorghum genotypes to be considered for bio-ethanol production. **Photo 3** for example shows a Brazilian genotype which was bred for biomass yield and second generation biofuel production, but was also tested for syrup yield.

The genotypes entered into the ARC's trial were randomly selected from 22 local genotypes to study the effect of nitrogen levels on the behaviour of sweet sorghum. Data from other cultivar trials indicated that ten sweet sorghum genotypes can comply with the requirements (syrup yield and Brix percentage) for bio-ethanol production.

To conclude

The nitrogen application trial showed promise and can be successfully incorporated into a bio-ethanol programme. Due to the variance of the data collected from the two previous seasons, a third season's data will be necessary to supply more significant answers. The results can then be applied to assist producers in South Africa who want to become involved in the bio-ethanol production industry.

Article submitted by Wikus Snijman, ARC-Grain Crops Institute, for SA Graan/Grain November 2013. For more information send an email to SnijmanW@arc.agric.za.

Grain SA interviews...Samuel Moloi

For this issue of Pula Imvula, Johan Kriel, our Free State Development Co-ordinator interviewed Samuel Moloi who farms in the Fouriesburg district in the Free State Province. Samuel is not only a successful commercial farmer but is an inspiration to many farmers and is motivated by his love of the land and farming.

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

I farm in the Fouriesburg district. I lease 175 ha of high potential Hutton soil from the Mashaeng Municipality. I plant maize, soybeans and on occasion wheat. I also plant sugar beans. If all goes well this year, I will be able to lease 525 more hectares from a commercial farmer in the district.

What motivates/inspires you?

I am inspired by rows and rows of clean, green, neat crops. My love of the land and farming motivates me. To be able to produce food, help give work to the jobless and make money, gives me the courage to be a farmer.

Describe your strengths and weaknesses

I am a hard worker. I have a lot of perseverance. I have the knowledge and can make plans. I am not a very patient man and can on occasion have a short temper. I am loyal man, and people have hurt me in the past, taking advantage of my soft heart.

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

When I started farming I harvested only 2 tons/ha on maize and 1 ton/ha on wheat. I am now harvesting 6 tons/ha. 2 ton/ha to 9 ton/ha on maize and have harvested 4,5 ton/ha on wheat.

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

Training, training, training. By attending Study Group Meetings, Training Courses and Farmers Days presented by Grain SA, I have gained knowledge about soil fertiliser, tillage methods, crop rotation and how to manage my finances. The mentorship, farm visits and support I receive help me to stand proud and tall.

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

I have done a lot of courses: Introduction to Maize, Wheat, Soybeans, Tractor and Implement Maintenance, Engine Repair, Advanced Maize, Farm Resource Assessment and many more. I would like more training on No-till, Labour Relations and Bookkeeping.

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

In five years I would like to be a farm owner. At the moment I am leasing all the land that I farm on. I would like to have my own place where I can work and rest my head at night, knowing that this is mine. I want to be a successful, independent farmer.

What advice do you have for young aspiring farmers?

- First get the knowledge, theoretical and practical. Be patient, do not hurry, take it slow, but do everything correctly.
- Make sure you have a strong support base. Do not be too proud to ask for help and advice and listen to it. There are people who know better.
- Live close to your creator, pray and do not forget to say thank you when you receive.

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

The Corner Post

Looking back, over my shoulder…

2014 is lying on its back. Another year is ticking steadily on towards its end and we are knocking on the door of another summer. Although we are often told we should not live in the past, it is always a good thing for a farmer to look at what efforts or enterprises were successful, and which were not.

This process of reflection helps you to manage operations in your business better into the future and enables you to build on what was good or otherwise to avoid that which was not so successful. As a leader in the farmer development lobby I have to say that even in the business of farmer development planning, we also need to take time to reflect on successes as well as on the areas which need changes in approach. Essentially every business needs to conduct a critical assessment in order to ensure that the work to be done into the future stays relevant and efficient.

Having said that, I must say that 2014 was quite an emotional year for me as it was my tenth year of voluntary work in the farmer development environment. This season in my life has been an incredible experience; I have learned so much. I have travelled to far corners of our country and have met amazing people: from the incredible Grain SA and their awesome Farmer Development team; to the captains of industry who meet in boardrooms and seek the solutions which will carry agriculture forward in a challenging environment; to the most wonderful people who I believe represent the strength, the character, the courage and the hope behind our beautiful land, the farmers! These are the folk who work the soil in sunshine and in rain, filled with hope that they are making a better life for their families and building towards food security for our nation.

Before I knew better, I was just another member of the public reading with concern and frustration through the many media reports about failed land reform and disastrous farm handovers. But, I am looking at the world of land reform in agriculture very differently now than I did ten years ago. I know well that there have been challenges and failures. I am not blind to weaknesses in the process and I still get frustrated when promises are made but not delivered on. Too often we seem to take one step forward then three steps backwards and the government's red tape sometimes strangles promising processes like recapitalisation and development. I am not pretending that there are not still many challenges ahead but what I do know without a doubt is that there are **so many good news stories that need to be told too!**

From all corners of the country there is evidence of successful farmers who are doing good work tilling and caring for the soil and growing excellent crops; farmers who are serious about using the natural resources at their disposal wisely and efficiently, who learn as much as they can from whoever they can about agriculture – whether it is learning more about how to plant specific crops, how to fix and maintain the tractors and machines they use, getting serious about office management, seasonal planning, record keeping and getting more knowledge about the challenging marketing environment for the crops they are producing.

I have served on the panel of judges for the Farmer of the Year competition so many times now I have lost count. Each year I tell Mme Jane that I can't be a judge again next year as the task is becoming too difficult and the farmers are all so amazing, I really find it challenging to say one is better than the other! Looking back over my shoulder at the 2014 competition I can say that every farmer we visited was doing something amazing and that makes me excited about the future of farming here. I am filled with awe at what can be achieved with absolutely no gifts or grants! I wish I could load every farmer who sits at home complaining about how they have had no government assistance onto a bus to take them to see farms where their eyes will be opened. There they will find farmers who do their farming with old tractors and implements and yet the fields are perfectly neat, the crops are growing well and the rows are weed free. When not in use, the machines are cleaned, serviced and parked under shelters built carefully from any material the farmer can find to protect his "tools" from the weather. These farmers we meet are men and women who firstly carry the passion for farming in their hearts and secondly know what it means to work hard through sweat and tears; they are creative and capable and often run other businesses to support their farming passion. They do not sit and wait for the helping hand to make their farms productive – they just do it!

> *"May your efforts be rewarded, may your fellow farmers be inspired and may God bless the work of our hands as we work together for a brighter future.*

We have just come through a time of celebration. We have heard so much good news about how the farmers are growing. I was delighted by the report of a woman who increased the yield on her 2 ha field from 0,5 ton/ha to 6 ton/ha. This is incredible growth! What a difference this will make to her household –and this was achieved because she took advice and planted a better cultivar seed and bought a knapsack sprayer to help her with weed control. Another farmer who was Emerging Farmer of the Year a few years back greeted me with a big smile telling me he has just bought his third farm. This did not happen because of any special connection or favour, this is the result of his excellent work and good planning.

Looking at all the film clips of the finalists and winners makes me so happy. From the bottom of my heart I want to congratulate all the finalists and winners in 2014 and to say thank you for being role models and bringers of hope. May your efforts be rewarded, may your fellow farmers be inspired and may God bless the work of our hands as we work together for a brighter future. Indeed we do have a good story to tell.

This month's edition of The Corner Post was authored by Jenny Mathews, Pula Imvula contributor. For more information, send an email to jenjonmat@gmail.com.

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