

PHENOMENAL FERTILIZER

The most valuable agricultural input



Not only does fertilizer hold the key to profitable agricultural practice, but it is also a significant contributor to food security, water efficiency and environmental wellbeing.

Harvest SA chatted to Eugene Muller and Dr Johan van Biljon from Kynoch Fertilizer to find out more.

Imagine all fertiliser stocks disappeared overnight. What would the effect on farming be?

It would be devastating. Not only food security but also nutritional security would be in danger. This could lead to even more serious price hikes and unrest, which would destabilize the country.

Stated differently: what are advantages of using fertiliser?

The advantages of fertilizer use are numerous and include, amongst others:

- Food security, which refers to the ability to provide enough food, or at least enough staple food (normally high in energy)

- Nutritional security, which not only refers to the energy needs in a diet but also to provide a balanced diet including, e.g. protein, vitamins, minerals, etc.
- Environmental security, which refers to the prevention of mining of the soils which will lead to non-sustainable food production in the future.

What does "plant nutrition requirements" cover?

Plant nutrition requirements consists mainly of the application of macro nutrients (nitrogen, phosphorous and potassium), secondary nutrients (sulphur, calcium and magnesium) and micro nutrients (e.g. zinc, iron, molybdenum, manganese, boron, etc.)

What research goes into producing fertiliser for today's market?

Fertilizer research is a continuous process, not to only stay competitive in the market place but also to provide for the higher demand because of the growing population. South Africa can be seen as a relatively unfriendly agricultural land with higher production risks

(climate), pricing risks (we are price takers seen from a global perspective) and political risk (land-grabbing threats), therefore local conditions must be taken into account to stay relevant and survive.

Does fertiliser also help with water efficiency and drought resilience?

Yes, the water use efficiency of a well and balanced fertilized crop is much higher than a crop that receives an unbalanced "diet" or one deficient in the amount and combination of nutrients. Water use efficiency is extremely important because of our limited and erratic rainfall in South Africa. A well and balanced fertilized crop can also withstand stress conditions much better.

What is the connection between innovation and efficiency?

In the first place, higher efficiency can increase the yield and the quality of the crop to increase the profitability of the food producer. More than that, higher efficiency can also lead to the use of less fertilizer that not only improves the food producer's

ones is mechanization and soil preparation. For fruit producers fertilizer cost is relatively small compared to packaging, for example.

How does the fertiliser industry strive to be environmentally responsible?

Different technologies can be used to minimize environmental impact. It is recommended that soil samples are taken on a regular basis to determine the nutritional status of the soil. Taking this into account can reduce fertilizer use and will prevent over-fertilization that can harm the environment. Plant samples can also be taken through the growing season to amend the fertilizer program to prevent overfertilization. Safety and the environment is also taken into account in the production of fertilizer products. Care is also taken to use only high-quality raw materials that adhere to minimum standards to produce products that will comply to at least legal specifications. The above mentioned practices emphasize the commitment and responsibility of Kynoch.

Would you say the fertiliser industry is in a healthy, competitive state?

The South African fertilizer industry is a highly competitive business and must be able to compete in the International arena against much bigger players. Barriers to entry are also extremely low and the need to differentiate is a critical component in sustainability of any fertilizer supplier, as food producers are essentially "spoiled for choice" regarding who they procure from. The South African fertilizer industry is amongst other factors challenged by very high harbour and logistical costs compared to first world logistics costs, but through innovation (thorough the

entire value chain) the industry has stood its ground, enabling food producers to compete against the best in the world despite all the challenges.

What are your hopes for 2017?

The previous season was a very tough one where a large number of food producers did not plant, especially in the western parts of the country, which resulted in a big amount of carry-over stock on farms. The season was also extremely short. The 2016/17 growing season looks very promising from a climatic point of view, and although there are always challenges, the industry should have a better time of it during the 2017/18 growing season, enabling them to focus more on making a difference on the farm rather than only getting the inputs delivered.

Fertilizer do's and don'ts

DO

1. Build a long term relationship with a reputable fertilizer company.
2. Buy quality fertilizer that comply to at least minimum standards.
3. Optimize fertilizer use by using benchmark technologies and practices to lower your risk.

DON'T

4. Put your business in the hands of a fertilizer supplier without a long term proven record.
5. Buy cheap, "questionable" fertilizer that can increase your production risk.
6. Guess what type of fertilizer and application rate to be used. Not only can it reduce your profitability, but it can harm the environment too.