SAFE FERTILISERS

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News and updates from SAFE Fertilisers

Message from Les and Patti

SAFE founders

In an amazing paradox, the recent floods have devastated some land and crops, and also brought long awaited benefits for others. The sad loss of loved ones can never be overcome. It may take some time, but affected farms will eventually return to normal. On the bright side of the recent rains, the dams are full and the water tables replenished.

The key to the future of farming in those areas is careful management. Now could be the time to investigate a strategy for the implementation of sustainable farming, and eliminate the need for the steroid type of fertilisers. Some governments are now calling for the cessation of chemical farm inputs to protect our valuable environmental assets. The Queensland Government is particularly concerned about the health of the Great Barrier Reef.

The first step is easy: talk to Safe Fertilisers agronomist, Neville Janke, or an Alroc agent in your area.

The Four M's of Farming

from Les Dyne

Every farm, regardless of location, needs fertile soil. Very few farms inherit good soil and it usually has to be built.

Whether it is a gift from nature or human management, there is only one way to build rich, friable soil and that is with the four M's. Anyone with any doubts can just go into a rainforest and examine the soil. That soil that has had no human intervention, and is rich, friable and sweet smelling can grow huge trees and a diverse understory. It is a combination of the following ingredients - the **four M's**:

Mineral fertiliser is a stable, non-leaching combination of different types of mineral rock. It will stay in the soil for years and is worked on by microbes to render it bio-available to the feeder roots of plants. Safe Fertilisers usually blend the crushed rocks with soluble fertiliser for fast results, however, the long term benefit is also there as a bonus.

Moisture is in great supply currently. Now is the ideal time and opportunity to add mineral fertiliser and microbes to your soil. Huge tracts of Australia have just received monumental rains and flooding in some areas, and all of that moisture can be used to great advantage.

Mulch is generated on most farms, e.g. grain operations produce stubble and cane farms produce trash, both of which should be ploughed in.

Microbes can be present in soil, but to ensure an adequate proliferation, they can be boom sprayed onto the moist soil. Good and inexpensive soil activators include **Vital Activator** and **N-Rich**, and for the organic growers, **Activ-8**.

Nature works its magic with these four M's and turns them into humus. Humus is a colloid (rather like jelly), black in colour and sweet smelling. It will not be leached or evaporated out, and the inherent, nutrient-rich components will nourish plants via their feeder roots right through to harvest.

On the Road with Neville Janke

Our workshop at Tamworth was a great success. Sixty growers took the opportunity to learn more about the essence of farming with minerals, especially carbon and calcium, for profitable returns.

'Biologically active systems provide quality returns', was the take home message from the line up of speakers with exceptional nutritional experience and knowledge. Farmers appreciated the hands on approach of the **'8 Steps to Improvement'** (see back page) for their individual operations.

I visited Agchem, in the beautiful Fijian island group, late last year. Agchem is one of our agents, which is promoting Alroc Mineral Fertilisers throughout Fiji. Ben Nand of Agchem guided me through the different areas of food production and research stations, as well as tobacco and sugar cane farms. The thirst for knowledge on how to grow better crops, from all the people we met, was just the same as we experience here in Australia.

2010 was a very trying year for some, and as one cane farmer put it, "I stayed up on New Year's Eve just to make sure 2010 was finished". Kevin Mann of Home Hill wrote this to me, "The Sugar mills were only able to get off the crop to about 70% and we only managed to harvest about 60%. We were in the path of nearly every shower of rain across the season. Any results I have from this season are very skewed and would not give a fair comparison on CCS or tonnage. Blocks were cut over weeks, and not days, and the sugar variance from start to finish had some large gaps in the numbers. The differences were too big to be normal. The only advantage we have is that our crop will grow on to next year, weather permitting. I feel for the producers in the southern half of the state as some have gone through an absolute shocker and still are".

The New Year has dawned, and with it has come more flooding. In some places rivers have peaked two weeks running, The loss, devastation and heartache are the sad part of any natural disaster. We now focus on rebuilding and new growth in every trade and business. On a positive note the rivers are full, and underground tables and wells are replenished. All this takes away some of the dark cloud and reveals the bright sunshine.

Farmers are set to take advantage of the best start for a winter season in years with full profiles of moisture, dams brimming and rivers running like the blood in your veins, pumping the life-giving energy into every vital system. Many growers I have spoken to talk of the plan to remineralise the soil before planting this year are now taking advantage of increased soil moisture levels. Some paddocks of wheat stubble have been direct drilled with mung beans using DAP Supablend as a starter and the response is just magic.

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Eight Steps to Improvement: The Farm Plan

Step 1: Soil Testing

A reliable Soil Test with a report is the first step to improving any soil. Safe Analytical Laboratories measures the elements that are essential to plant nutrition, pH levels, etc. These factors are indicators of nutrient availability and the potential of the soil to produce crops. CEC (Cation Exchange Capacity) is the measure of soil's ability to hold and store nutrient. Always assess the organic matter and carbon levels in soil, which sustain the life within soil. Last, but not least, measure the EC (Electrical Conductivity), which is the total amount of charged particles in the soil solution. An old saying goes, "If you don't measure it, how do you manage it"?

Step 2: Crop Management

For summer crops or winter crops. Crop rotation is always a good thing to break any pest/disease cycle, and helps to open soil structure and build carbon levels. Check on the rainfall data - when rains are expected and when the hot dry times are noted. Does this soil have the moisture holding capacity to grow the intended crop?

Step 3: Grazing Management

How many hectares are available for stock? Can a stock rotation program be worked into the operation? Are the water points accessible to work a rotation? Pasture species - are they winter or summer dominant? Rotation can assist in the control of weed pressures or pest problems. Increase the benefits of pasture by growing perennial grasses and cereals together. The improvement of soil structure through the application of mineral fertiliser assists roots to stimulate the microbial activity. Pasture is one of the best carbon sequencers; it converts CO_2 into carbon for the soils. This, together with soil microbes, enhances photosynthetic potential, thus producing a greater volume of pasture.

Step 4: The Fertility Step

Feed the soil and it will grow the crop. The Soil Report will assist in the decisions on which fertiliser to use, when to apply, how much to apply and the critical timing part: at ground preparation, pre-plant, at planting, in crop or foliar. Use the Safe Fertilisers consultant to help make these decisions. Many options are available: granular or foliar fertiliser; or is a custom blend what is required? Do I grow a green manure crop, and how much organic matter is needed? Many questions have simple solutions in order to grow a good crop - just ask a Safe Fertilisers consultant!

Step 5: Machinery

Some machines can cause soil structure problems, lead to erosion patches and cause compaction. Have your soil checked for structure, slaking or dispersing, as many soils are ancient, strongly weathered and infertile. This can have an effect on the tilth developed for a seed bed. The choice of machines to be used, when the nature of the soil that is being farmed is understood, can enhance the potential crop growth.

Step 6: The Tractor

The power to perform the duties required is integral to good farming practice. Too big or too small often compromises the crop potential. Compaction is a big problem - most times the tractor is too big or there is very little organic matter in the soil. The condition of soil plays a big part in the effect of a tractor doing its job in towing the plough. Assess the power needs for the size of farm and the job to be done. The fertility of soil has a big bearing on the needs for power to perform the farm tilling.

Step 7: Recreational Tillage or Spraying

Non-essential time filling. Farm management decisions on when to plough or when to spray are some of the most critical a farmer will make. If unsure, ask the questions when faced with these decisions. Should I really spend my spare time engaging in these tasks? What is the best option? Would I be better off taking a rest when there are issues like: too wet, too dry, too much wind, too hot or cold, rain predicted, no soil moisture left, the weeds are getting away, there are pests, etc? If in doubt, free advice is never far away, call your Safe Fertilisers consultant.

Step 8: Harvest Time

Reaping the rewards of the decisions made, and the kindness of the natural weather systems. Some options can provide the extra cream - can the crop be harvested on the green side and dried, do we spray it out, is a contractor required or does the farm control the harvesting equipment, is storing the crop waiting for a good price an option? A fine line exists between quality returns and a disaster. Remember that the fertility of the soil has a large bearing on the quality at harvest.

Image: Bob Gaston in wheat crop.

Quick Start Guide for Cereal Cropping

Seed Coating:

Vital Phos @ 4L/tonne of seed with sufficient water to ensure adequate coating of the seed

Ground Preparation:

Apply 1 tonne/ha Granulated Lime or Liquid Lime @ 20L/ha in 300L water

Pre-plant:

Apply 50kg/ha Safe Fertilisers Coated Urea and 10L/ha Vital Activator, boomsprayed with 200L/ha water

At Planting:

Option 1: Apply 75kg/ha DAP Supablend with 5L/ha Vital Phos in 200L water, boomsprayed onto soil before planting

Option 2: Apply 200kg/ha CBM with 5L/ha Vital Phos in 200L water, boomsprayed onto soil before planting

In Crop Fertiliser requirements:

Nitrogen: Use 40kg/ha Safe Fertilisers Coated Urea side dressed or spread over the top by spinner/aerial application or foliar spray 10L/ha Vital Mix in 100L water

Multi Nutrients:

4L/ha Vital K Blast to finish the crop off. This can be foliar sprayed, aerial applied or put through an irrigation system

Post Harvest:

Stubble Management: Vital Activator @ 10L/ha

General Notice: Safe Fertilisers highly recommends a soil testing regime to commence at this stage. A subsequent soil fertility program should be formulated with a Safe Fertiliser representative.

The above mentioned application rates can be adjusted to what is economical. These adjustments may not provide the ideal nutrient ratios, but should replace some of the nutrients that are removed by the crop.

Disclaimer: The above program will be affected by soil variation, testing errors (to ensure accuracy use an accredited laboratory), seasonal factors and management skills. Any recommendation should be acted upon as part of an ongoing fertiliser program. No responsibility can be accepted for any of the above matters or other matters that are beyond Safe Fertilisers' control.

News Update

Safe Analytical Laboratories is now a NATA (National Association of Testing Authorities, Australia) accredited laboratory (accreditation number 15721), ensuring accuracy and reliability. This accreditation is based on the relevant international standard (e.g. ISO/IEC 17025, ISO 15189, ISO/IEC 17020) and includes: the qualifications, training and experience of staff; correct equipment that is properly calibrated and maintained; adequate quality assurance procedures; appropriate sampling practices, etc. Safe Analytical Laboratories conducts soil, water, animal hair, leaf and tissue analysis.