Fertilizer News

Product planning and supply for next season

By Eddy Pol Executive Manager – Marketing & Sales

Fertilizer supply for the 2022 season had several challenges which needed to be overcome by fertilizer companies to supply Western Australian growers.

They ranged from sanctions on Belarus limiting MOP exports, customs requirements limiting exports on phosphate fertilizers from China, and the Russian conflict in Ukraine impacting on AN and UAN supplies from the Black Sea.

Fortunately, after a lot of work behind the scenes, growers in Western Australia were able to access fertilizer for the 2022 crop, even though it may have been a change from the usual product of choice.

Summit was impacted by these factors and had limited supplies of the unique products like MAPSZC and MAP & Mn, but was able to supply MAP to our customers.

More recently, the restricted gas supply from Russia into Europe is leading to very high prices and fertilizer manufacturers are closing plants as a result. This is leading to added supply pressures and therefore on pricing, particularly for nitrogen fertilizers.

Many of the challenges faced in 2022 still exist for 2023 and have the potential to impact on supply of fertilizers for crops and pastures in the coming season.

Summit has taken many steps that we can control to ensure the issues faced in 2022 are not repeated in 2023. This includes securing new suppliers to allow us to spread the risk of not being supplied if political factors escalate, as well as bringing forward shipping to ensure product is in our shed early for growers to collect.

Many growers have indicated their desire to use MAPSZC in 2023. They have had great experiences handling the product in the past and have seen the crop responses to supplying a



Earlier shipping and availability of products like MAPSZC will shore up supplies for next season.

range of nutrients in a compound.

MAPSZC is planned to be shipped in September, which would make it available for collection in October if growers want to ensure it is on hand for their seeding operations.

Other products like DAPSZC and MAP & Mn will also be available after this first shipment.

New supplies of MOP are already in the Summit sheds, and additional ships are scheduled to ensure the quantity on hand is sufficient to meet demand.

Summit Area Managers are currently promoting the 2022/23 Fertilizer Supply Offer, which will provide a better understanding of growers fertilizer requirements for 2023, particularly in light of the outlook of high prices.

The information collected will allow Summit to manage fertilizer imports to match any planned changes growers may consider in product mix or volumes.

The 2022/2023 Fertilizer Supply Offer

Our 2022/2023 Fertilizer Supply Offer (FSO) is now open and closes at the end of October 2022. It offers substantial rewards to assist your farm business.

By nominating your requirements within the FSO period, you will be given priority access to product available for our fixed supply contracts. In addition, you will receive a \$2/tonne rebate (all products), towards inSITE soil and plant testing on all tonnes collected by the end of July 2023.

Growers can choose a:

- Fixed fertilizer supply contract (where the product, price, quantity, depot, and month of collection are fixed at the time of signing); or a,
- Variable fertilizer supply offer for increased flexibility.

For ease of doing business a wide range of payment and credit options are available to approved customers.

For more information on our Fertilizer Supply Offer speak to your local Summit Area Manager.



Thought provoking data coming from P +/- Mn trial

This season Summit Fertilizers has 26 trials in the ground and with the favourable conditions to-date across most of the grain belt, the Field Research program is progressing nicely.

Some of our research in the Great Southern aims to investigate higher yield potential phosphorus (P) application rates in forest gravel soil types. Our trial at Tenterden is also investigating whether there are combined effects between applied P and the trace element Manganese (Mn).

Already, this trial has yielded some interesting observations.

Growing season assessments have measured nutrient uptake by tissue testing, average plant weight for each treatment and NDVI biomass values. These are all key factors influencing final yield potential.

Plant sampling on August 3rd and subsequent tissue analysis showed higher Mn concentrations in plants when 4kg/ha of Mn was applied in the seeding fertilizer, compared to the nil Mn treatment.

NDVI readings taken later in the month on August 24th showed positive growth responses to applied P. A rate of 40kg of P/ha had the highest average NDVI measured on that date. 40 kg is about twice the rate of P used by growers in the area.



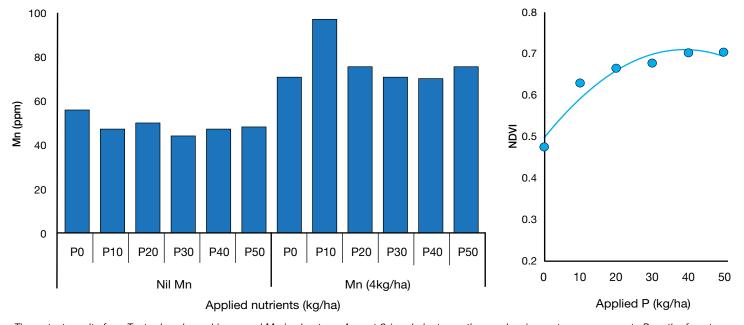
Field Research Officer, Jack Pages-Oliver, spraying weeds between the Tenterden P +/- Mn trial plots. Clear growth differences could be seen on August 24th between treatments.

Also observed within the tissue test data was that at some of the higher P rates, enhanced plant growth was accompanied by a greater dilution of other key nutrients and trace elements, creating possible deficiency scenarios.

It's a timely reminder for growers to keep nutrition in balance and if you have soils responsive to P, ensure any other marginal nutrients are also addressed. Your yield potential is only limited by the next deficient nutrient.

Final yield, grain quality data and gross margin analysis on the trial will tell the true story for the Tenterden site at the end of the season. Summit trial results like these will continue to strengthen our local knowledge of nutrient input and yield responses.

Extensive research information is the basis to the Summit inSITE model to ensure it provides growers information so that better economic decisions can be made.



Tissue test results from Tenterden showed increased Mn in shoots on August 3^{rd} and plant growth was showing a strong response to P on the forest gravel soil at growth stage $Z\sim30$, August 24^{th} .

Base your 2023 decisions on quantitative assessment

In order to gain the best economic benefit from fertilizer inputs, especially with prices likely to remain volatile for some time, it's now time to start considering any changes that may be required to next years seeding program.

Blanket fertilizer rates across the farm can be inefficient and expensive when the wrong products and rates are applied. Nutrient management starts with soil testing. We encourage clients to soil test every paddock and/or site every 3 to 4 years. It's the best way to evaluate trends in nutrient status and soil pH.

Sub-soil testing is also recommended to further evaluate nutrient status at depth.

Results are then analysed by the Fertcare accredited Summit inSITE model so our Area Managers can customise fertilizer rates and products to overcome any nutrient limitations. This is particularly important where variable rate technology can be adopted.

It's important to note that all present and historic soil and plant test data, interpretations, site mapping locations and more are stored within Summit inSITE, which is now also available through the Summit app.

This allows farmers, and upon customer approval, their agronomist/consultant to gain easy access to their results.

InSITE modelling is continually refined as new research becomes available.



By Mark Ladny Area Manager: Albany West Mobile: 0498 223 421 Email: mladny@summitfertz.com.au

Summit has long-term P and K dynamics trials aimed at better understanding nutrient build-up and run-down in relation to such factors as application rate and cropping sequence. These are located in a number of areas. Contact your local Area Manager for more information.

Information anywhere, anytime

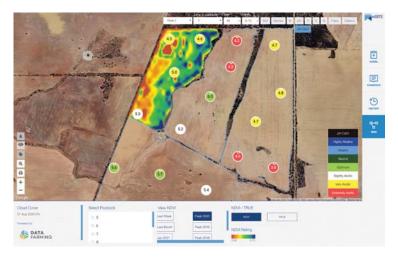
Growers can connect with Summit anywhere at anytime. SummitConnect is your link to our inSITE platform, so you can view and download your entire soil and plant test history, including recommendation reports. An exciting inSITE feature is trend maps, which allows you to visualize how soil nutrients, pH and other soil properties are tracking over time, across different depths and in different paddocks. It's vital information at your fingertips, invaluable for budgeting!

Clients can access maps free of charge through:

SummitConnect>inSITE>Trend Maps

for information on macro and micro nutrients, organic carbon levels and soil pH.

Summit has also released the new 'Summit Fertilizers App', available on the Google Play and Apple App store platforms.



A SummitConnect trend map showing pH results at 0-10cm depth across all years.

Better decisions with inSITE



An example of how the Summit inSITE program can be utilised to give growers a better return is given above. In this example supplied by Mark Ladny, the client's P status map takes into consideration Colwell P values, read in conjunction with PBI results and other data, to provide an overall P status. This combination is important because the higher the PBI, the higher your critical value of Colwell P needs to be to ensure an optimal P status. From the test results it can be seen that the majority of the soil on this fertile Southwest farm has excess or luxury P in soil reserve and hence, P application is not necessary in the purple or blue areas. Two sites (green) have adequate P levels and only one (yellow) was marginal for P.

Mark has done some livestock carrying capacity calculations for the grower. If we assume a carrying capacity of 12 DSE/ha, in the area identified with adequate P, 12kg P/ha would be the maintenance rate. This may increase to 18kg/ha for the marginal P area. If this site also had a low PBI, splitting the P application would reduce the risk of leaching or run-off, therefore returning an even better result from the fertilizer strategy.

Team tours a true mixed farming zone



To ensure Summit Fertilizers provides the most up-to-date and relevant advice, it's important the team keep abreast of current research and the continual evolution in farming practices.

Each year, one of our Area Managers is charged with the responsibility of organising a team field trip in their area. This year the task was skilfully tackled by Brett Beard.

Brett looks after the shires of

Moora, Gingin, Victoria Plains, Chittering and Dandaragan. With its wide-ranging mix of horticultural enterprises, livestock and broadacre crop production, Brett has an interesting and diverse range of agricultural operations.

Our Area Managers travelled to Moora from as far afield as Geraldton to Esperance, and combined with head office staff. It was a real treat to have just a small insight into the diversity in Brett's area.

The Summit team, on tour and catching up with Nathan Craig, West Midlands Group EO.

Tour highlights

Moora Citrus is an innovative horticultural venture 12kms from Moora. Their orchard spans more than 200 hectares and fruit is all hand picked. The production focus is on fresh supply of oranges and mandarins to the domestic market spanning across 8 months of the year.

It's a sophisticated and fully integrated operation, from growing their own rootstock through to harvesting and packing fruit.

Our Area Managers fielded plenty of questions about the irrigation requirements of the trees and in particular on best-practice fertigation that encourages fruit growth and development, without putting too much energy into excessive tree growth.

This orchard really is a great example of a local project that helps boost regional employment and stimulates the local economy.

Charl De Fin (right), Manager of Moora Citrus explains their fertigation strategy to the Summit team on tour (photo left). Brett Beard left.





Innovative pasture land use

A visit to the property of Zac and Jane Roberts, 7km north of Dandaragan, provided an opportunity to see some really innovative land use, and enjoy a delicious lunch catered by Jane.

Zac and Jane have a couple of paddocks of deep, white coarse sand. It's a free draining, low water holding capacity situation where nutrients are easily leached. Given consistent, regular and light rainfall events, biomass is produced. But in most seasons the sands poor ability to hold onto water plays havoc with crops and they just don't produce the grain yields. Zac has established a fine mix of annual and perennial pasture species that are making much better use of the land, and not leaving it as exposed to erosion events.

He has sown deep rooted perennial panic grass in rows and serradella legume in the inter rows.

Evidence says panic grass is more palatable to livestock than many other perennial grass species such as rhodes grass.

Once established, its deep root system is ideal for this situation. It can extract water and recycle nutrients at depths well below that reached by annual species.

Panic grass is a great perennial option, because once established it tolerates drought conditions, makes full use of early and late season rainfall when conditions are warmer, and bounces back strongly with any out-of-season rainfall.

It will continue to grow until the soil moisture is depleted. It's the ultimate opportunist. It's not particularly tolerant to waterlogging, but that's unlikely in this situation. When weather conditions are mild or cool, panic grass essentially becomes dormant.

"That's when serradella legume growth is important. The stand we looked at (picture above) is a few years old and a credit to Zac with the way it has been managed," said Brett.

"Most perennial pasture paddocks in my area don't really have much legume in the inter row, or have rhodes grass, which tends to run across the ground. That negates erosion, but chokes out potentially productive species like serradella.

"A winter legume component is an absolute winner, putting nitrogen and organic matter into the soil which breaks down, ultimately to be used by the panic grass. Super Potash application in the autumn is a key part of this mix to feed the serradella."

Panic grass, serradella and the right fertilizer strategy is transforming productivity on deep coarse sand for Zac Roberts of Dandaragan.

Summit soil analysis

Summit soil testing will provide a guide as to whether you need to apply additional nutrients to maintain productivity.

It assists in deciding how much fertilizer to apply as it measures the quantities of available nutrients in the soil and where in the soil profile they are located.

The analytical results are interpreted using models developed from trials conducted in Western Australia.

These models also take into account the potential yield, soil type, past crop rotations and soil constraints like pH or aluminium levels, to determine a fertilizer recommendation for the coming year.

Your local Summit Area Manager can provide more information on the impact of nutrient removal after this year's crop.

Further Summit field tour highlights, next page.

Just a taste of the Summit broadacre trials



Rohan Marriott (centre) takes time out from his busy farming schedule to update the Summit team about his thoughts on the long-term potassium trial Summit has on his Badgingarra farm.

The Summit team travelled south -east of Badgingarra to view lupins in a long-term potassium (K) trial. This Summit trial started in 2020 with the aim of testing various K placement scenarios and comparing the safety of muriate of potash (MOP) with sulphate of potash (SOP).

MOP contains a higher concentration of K, and is normally the most cost-effective source of K for farmers. SOP still contains a high concentration of K, but also contains sulphur, which is essential for protein production in plants. Another advantage is that SOP has a lower salt index compared to MOP.

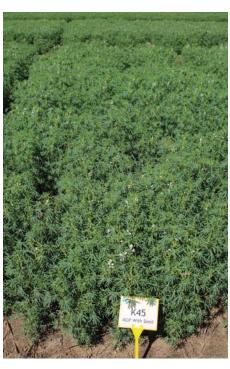
It's a trial that addresses a particular interest of Rohan Marriott, who has kindly made his paddock available for the trial.

Some interesting plant emergence results came through in late June with SOP appearing to be a safer option when banded with the seed at higher rates. However, Brett Beard suggests it's best not to jump to any early conclusions.

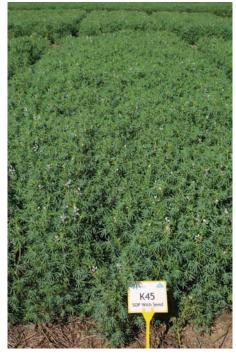
"Lupins are very good at extracting nutrients from the soil and they appear to be growing out of the effects.



Plant count on June 23rd for the 15kg/K/ha treatment, K applied as MOP banded with the lupin seed was 33 plants/m².



Plant count on June 23rd for the 45kg/K/ha treatment, K applied as MOP banded with the lupin seed was 18 plants/m².



Plant count on June 23rd for the 45kg/K/ha treatment, K applied as SOP, banded with the lupin seed was 38 plants/m².

"They have a capacity to fill in the space with their lateral growth from secondary and tertiary stems.

"Lupins have an uncanny ability to compensate for those early setbacks. At this stage it's just an observation."

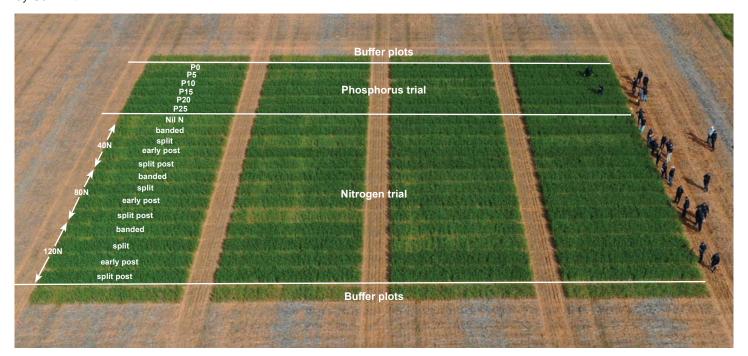
P and N trials WMG

Travelling on to the West Midlands Group trial site at Regans Ford, the team looked at nitrogen (N) and phosphorus (P) work being conducted by Summit. Pictured below, the Regans Ford site is sown to wheat and the main objective is to determine how to optimise N and P use in a year such as this, when budget considerations are the main determinant factor, as opposed to maximising production.

These trials include an investigation into the possibility of delaying nitrogen application to reduce up-front risk and catch up when the season improves.

Brett Beard took the Summit team to his Regans Ford N and P trial sites (pictured below). It's typical for Summit trials to have graduated treatments in one block for demonstration purposes, and have the rest of treatments randomised in blocks.

The team had fun identifying N and P rates in the randomised block on the right. This trial is showing responses, so given a favourable finish should add to Summit's growing body of trial results.



Last stop Annadale

ast stop for the Summit field tour was Annadale Farm, 20km south of Moora where Jaden Cocking (right) discussed the use of complementary organic matter and a Reefinator to breathe life into shallow cap rock areas.

It's quite a unique situation where the introduction of large volumes of organic waste material that comes from the Water Corporation and fertilizer products supplied by Summit are working together to fuel yield potential.

Jaden said the mix of;

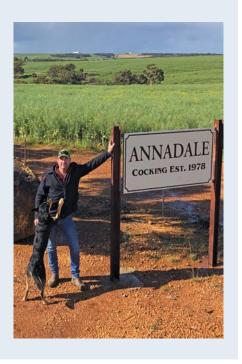
- Using a tractor driven hydraulic Reefinator to rip, crush, mix and level laterite cap rock soils;
- organic matter; and,
- fertilizer,

was helping push the soil health on these very coarse soil types to unprecedented levels.

The Cocking's have soils that range from White Gum to Salmon Gum to York Gum to Jam country.

The combination of organic and inorganic products have fitted together well. While the soil enriching organic matter is helping rejuvenate all soils types, Jaden said the more coarsely textured ones are capitalising most.

Improved soil structure promotes dense, healthy root growth, which enables better nutrient uptake by plants to better utilise applied fertilizers. After the organic matter application, the paddocks tend to benefit for the next 3 to 4 years.



Your Local Summit Fertilizers Area Manager



www.summitfertz.com.au