Winter 2021

# Fertilizer News

# Summit's biggest trials year ever!

## Inside this issue!



Forty two Summit nutrition trials are now in the ground across the State. The majority have been sown into moist soils, which is a welcome change to the dry starts of previous seasons.

As with our farmer clients, we want to make the most of this season's opportunities. It's Summit's largest trial program ever and has only been possible because of the hard work, long hours and dedication of our Field Research Team and Area Managers. Top end Apex Yield Trials have continued this season. These

*Continued on page 2.*

For more information talk to your local Summit Area Manager

SUMMIT FERTILIZERS

*Continued from page 1.*

trials aim to provide a range of nutrient treatments at the high end of the scale to determine the yield response potential of popular wheat varieties, often selected for their farm use based on NVT yields. The goal is to remove crop nutrient limitations and as such, set a yield benchmark for growers as a reference point for future decision making.

This year there is also a big focus on potassium nutrition. Manganese too, has continued to generate a lot of grower interest in quite a few areas.

Many of the ideas for this years program have been generated by our Area Managers, who work closely with growers to identify local crop nutrition issues. They have been teaming up to find suitable sites.

Later in the year they will hold field walks to generate discussion and promote further feedback about local issues. With this thinking in mind, we want to encourage growers to reach out to their Summit Area Manager, learn more about the trials and about local crop nutritional issues that could be of importance to them.

## inSITE plant analysis

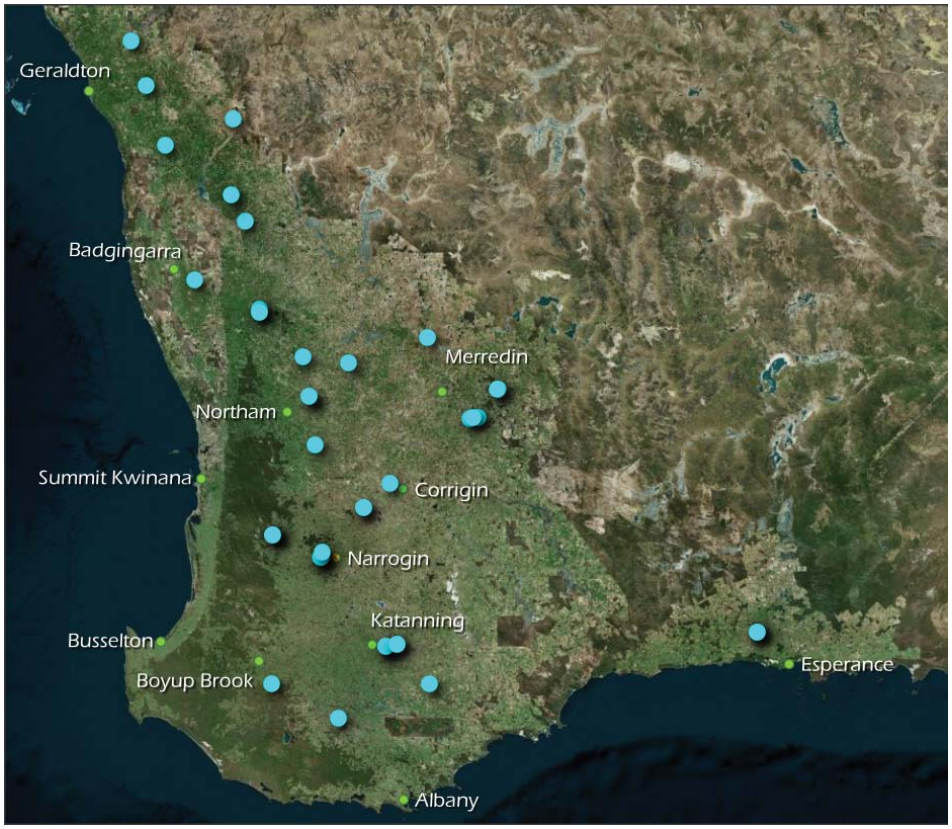
In the coming weeks, plant analysis will be an invaluable guide as to whether specific nutrients are limiting the growth of your crops and pastures.

Recent seasons have tended to be relatively dry. This would have limited plant growth and therefore, nutrient limitations may not have shown up as readily as they normally would. 2021 presents a different scenario with most crops off to a great start and moisture not limiting at this stage. It looks like a great time to test!

Key benefits of Summit Fertilizers inSITE plant analysis are:

- Independent laboratory
- Rapid turnaround times
- Wide range of nutrients measured
- Support from Area Managers trained in the best sampling techniques
- Results can be viewed on SummitConnect

*Over the past 6 years, Summit Fertilizers has conducted close to 200 trials across the State, making Summit one of the biggest investors in WA crop nutrition research. It may still surprise some though as to the scope and depth of our trial results. Local Area Managers are a great source of information. Jack Pages-Oliver from the Field Research team (pictured above) hard at work this season sowing a wheat trial at Katanning to test flutriafol x K rates.*




*Forty two Summit trials are now in the ground across the State along with countless Fuel Gauges. Many of the locations pictured above have multiple trials.*

# N, K & S nutrition in higher rainfall conditions

Rohan Marriott, his wife Libby and parents Graeme and Jude farm at Dandaragan. Their farm is located in a long term 500mm (plus) average rainfall zone. Coupled with the relatively warmer winters of the mid-west and reliable rainfall, their farm grows some very good crops.

What they've learnt though is that growing big bulky crops isn't always the pathway to high yields. Managing nitrogen, potassium and sulphur nutrition throughout the season to control crop biomass is absolutely critical, especially on their lighter soils.

Rohan explains, "We've had a couple of seasons like 2017 and 2019 where we didn't have the finishing rains, so we grew a lot of bulk, but not a lot of grain in some areas.

"That's led to a program of multiple fertilizer applications to minimize the risk of leaching, for seasonal risk management, and it's just kinder on the plant," he said.

"It's more about trying to give the plant what it needs, just not giving it all in one big hit. The more applications we can do the better, but that comes down to management as well.

"Obviously, you want to capitalize on a good season, but not go out with a huge risk if it doesn't work out that way.

"This area is definitely prone to leaching, especially with some of the higher rain events and soil types that we have. We have to manage our nitrogen in particular, so we target a four or five pass strategy depending on the season.

"We're set up with UAN on the air-seeder. UAN goes down with either Gusto or Vigour at sowing, with their P rates set for a 3.5 to 4.5 t/ha yield potential. The preference is to use Gusto if there is not too much of a price difference between the two because we feel the sulphate of potash in Gusto is a bit kinder to the plant and soil than the muriate of potash in Vigour. "To keep it in balance, pass two is normally a spread of nitrogen and sulphur. We then come back with a spread of nitrogen, potassium and sulphur followed up with a foliar UAN application, which normally goes in with a fungicide.

"And if we need to and the season's going really well, there is the option for a for another UAN spray."

*Rohan Marriott (left) and Summit Area Manager Brett Beard in a trial on the Marriott's Dandaragan farm. This Summit site organised by Brett has been set aside for a long term trial on potassium nutrition. It started in 2020 and tests various scenarios of muriate of potash (MOP) and sulphate of potash (SOP). Potassium (K) is one of the major nutrients required by the plant in large amounts, (about 1.5 to 2.0% of plant weight).*

*Summit supplies both SOP and MOP, which can be custom blended with other products or used as stand-alone fertilizers. MOP contains the 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 reduced salt index compared to MOP.*

*Rohan said he welcomed the opportunity to be involved in the trial. "For me, it will be interesting to see if there are any long term effects of using SOP or MOP. Year one probably hasn't shown any glaring results, but that's typically been the case for potash trials that have been done. They're only done for one season, so we wanted to see what happens over a long period of time."*

## Summit UAN and MAXamFLO chemical mixing compatibilities and more

In the coming weeks nitrogen applications will be in top gear and Summit UAN and MAXamFLO will be widely used.

Summit has tested the physical mixing compatibility of these products with many commonly used herbicides, fungicides and insecticides.

All that information is included in the Summit APP, available for Apple and Android users.

Using drop down menus, it's easy to check if information is available on the chemical of choice. This information is also available on the Summit website. There's a lot of accompanying information on the website that growers will find useful.

Go to www.summitfertz.com.au then go to the Liquids Range in the cropping fertilizers section and you'll see the following tabs:

- Usage and compatibilities
- Liquid fertilizer notes
- Key to formulations
- Key to compatibility
- Boomspray decontamination
- Corrosion

# Managing nitrogen logistics in high yielding canola

As canola yields increase, the logistics of nitrogen (N) management - especially where seasonal rainfall can be highly variable, is becoming increasingly challenging. Nevertheless, growers such as Justin and Braden Bagley have plans in place and are meeting the challenge.

The brothers farm properties between Mingenew and Arrino with wives Teneale and Kirsty, and parents David and Michelle.

Canola has become an important part of their program and yields have steadily increased since they first started growing the crop in 2009. Back then it was considered a valuable break crop helping to manage weeds and disease.

In 2016 their canola averaged 3.4t/ha and yielded up to 4t/ha on better areas. It was a game changer of a year and left them contemplating how to best manage nitrogen. They want to meet the needs of an average year, and yet also be in a position to respond to high yield potential when the season presents itself.

They are now at a point where they are consistently achieving canola yields of more than 2t/ha, which is about 60% of their wheat yields. With the current pricing, canola is on track to generate a greater return per hectare this season.

Canola is typically 25% of the Bagley's program, which tends to be on a rotation of wheat, wheat, barley, canola on most of their country. They also grow some lupins on lighter paddocks. This year they cut back on barley and increased the canola area to 2,400ha, putting even more pressure on nitrogen management.

"We see canola as an important crop. Keeping the nitrogen up to it has been an issue because we don't have a big legume component in the system," Justin said.

"In a really good season we're looking at applying up to 150 units/ha of N, and It's difficult to get that amount on if you don't start applying it early. You just can't decide halfway through that you're having a good year and need 120 or 150 units of N and slap it all on at once.

"So a base program for us would be 100 units of N every year aiming for

*Justin (left) and Braden Bagley stop sowing momentarily in early May to have a quick catch up with Summit Fertilizers Area Manager, Juliet McDonald. The Bagley's have been using highly concentrated, fully compounded sowing fertilizers MAPSZC and DAPSZC for a long time, helping build a history of trace elements along with background phosphorus.*

a 2t/ha plus canola crop. And if the season looks better than average, working off that base program we just keep adding to it.

Justin said they start with sulphate of ammonia applied pre-sowing at 175 to 200kg/ha. Canola is sown with 40 L/ha of UAN applied below the seed along with Summit MAPSZC banded with the seed.

That's between 60 and 65 units of N and 46 and 52 units of S in the ground by the end of seeding.

The plan so far this year is for liquid UAN to be applied early post-emergence with glyphosate, followed by a spread of urea.

If the season continues to go well, it is likely the crop will receive a second spread of urea (or another UAN application).

The final UAN application will most likely go on with a Prosaro fungicide spray for sclerotinia stem rot control.

*Justin Bagley digs down into the sowing furrow at seeding to make sure seed and fertilizer placement is within the moisture zone. With good summer and autumn rainfall and a great start in the north, this looks like a year to monitor growth and feed crops according to yield potential.*

**Table 1. Nutrients removed by each tonne of canola seed**

| | Macronutrients removed (kg/t) | | | | Trace elements (g/t) | | |
|---|---|---|---|---|---|---|---|
| | N | P | K | S | Cu | Zn | Mn |
| Canola | 40 | 6.5 | 9.2 | 9.8 | 4 | 40 | 40 |

# Striking the ideal balance of N and S

Could sulphur be a missing link to low protein levels in high yielding years, when there is such a focus on nitrogen supply to crops?

Sulphur nutrition in plants is clearly linked to nitrogen. Like nitrogen, sulphur is important in the synthesis of amino acids and a wide range of metabolic processes. It is of major importance to the amount of protein produced and for grain and seed quality.

Nitrogen and sulphur share many similarities. Both are mobile in the plant and soil, their application timing is similar and they both need to be available early as a foundation for good crop establishment.

Not all crops require the same amounts of sulphur though. Cereals typically have a nitrogen:sulphur (N:S) ratio of 15:1, whereas canola has an N:S ratio of 7:1.

Hence, canola has roughly twice the sulphur requirement of cereals, which is why growers need to have a plan that meets the extra sulphur needs of canola.

How much nitrogen and sulphur is required is determined by potential yield. When deciding how much nitrogen to apply growers should ensure there is adequate sulphur available to the crop so it is not limiting the response to applied nitrogen.

Summit UAN and MAXamFLO offer easy handling, easy to use liquid nitrogen sources. Which product growers choose really comes down to crop requirements.

Where only nitrogen is required, Summit UAN, a mix of urea and ammonium nitrate is the ideal solution.

Where sulphur and nitrogen are required, MAXamFLO, which contains 6.2% sulphur along with 22% nitrogen in a balanced formulation, is a very good option.

## More N for canola

Growers understand canola has a high nitrogen (N) requirement. Around 40 units of N is removed with every tonne of harvested seed. That means a 2t/ha canola crop removes around 80 units of N.

Not all the nitrogen in the plant makes its way into the seed however. Some remains behind in the paddock after harvest in stubble and the reality is that for a range of reasons, nutrients applied are by no means 100% efficient.

So, when budgeting for nitrogen requirements for canola, growers should allow for about 55kg/ha N to produce each tonne of grain (40kg of N ending up in the grain and about 15kg remaining in the stubble). In addition, there should be an allowance made for losses. Depending on seasonal conditions it can take as much as 70 to 80kg of N to grow each tonne of canola seed.

# Fodder Max sets the scene for strong spring

For most grain growers, annual ryegrass is public enemy number one! It's become an expensive, highly adaptable and competitive weed that was originally introduced for sheep feed, but now has no place in intensive cropping programs.

But for Williams farmer, Matt Gillett, and others like him in the Southwest, there are plenty of reasons to want to grow big volumes of highly nutritious ryegrass. Not the problematic Wimmera variety, but a combination of diploid and tetraploid varieties.

Diploids for their suitability to heavy grazing with higher stocking rates, and tetraploids for their palatability and higher metabolizable energy levels.

Matt farms with his partner Hayley and parents John and Colleen. His brother Scott has just returned to the family farm. Their home property is just south of Williams and they also have a block further south towards Wagin.

Combined, the two properties have about 2,300 arable hectares with the Williams farm consisting of mainly heavy river country with some gravel and a 50:50 livestock and crop enterprise. The Wagin block has more loamy gravels that are suited to continuous cropping.

*Pastures on the Gillett's Williams property are sown just like their crops with the same attention to detail. Summit Area Manager, Jarrad Martin (right) catches up with Matt (left) and Scott in early May.*

At the home farm the rotation is typically canola, oats, barley and then out to pasture for a few years. A substantial effort is put into resowing pastures and keeping them productive for the next three years. Getting ryegrass up and growing quickly for early sheep feed is a priority.

"Typically, we'd sow ryegrass and sub or Balansa clover into oat stubble. It's sown shallow with the air-seeder, along with 50kg/ha of MAPSZC down the tube. We would usually spread 90kg/ha of Pasture Potash 5:1 out in front of the machine, and then we come back with 70kg/ha of urea and potash just before the first graze.


*In early May, Summit Area Manager Jarrad Martin was already out and about discussing the importance of a spring fertilizer strategy with Matt and Scott Gillett. Jarrad says the advantage of an NKS fertilizer like Fodder Max over straight urea is that it keeps the N:K:S ratio in balance, as ryegrass continues to respond to sulphur and potassium late in the season.*

# pasture growth

It's really all about setting the nutrition up on those paddocks. They can get quite wet over winter and we may not be able to get back on them.

"It'll get a herbicide brew like MCPA to take out the capeweed and an insecticide to control Red Legged Earth Mite, because obviously mites can get stuck into the grass and also the clover in autumn.

"Once the ryegrass has established it can then be grazed. We aim to take the sheep off those areas around the second week of August and apply 200kg/ha of Fodder Max to try to get as much spring growth as we can. Then it can be cut for hay, or we might lock it up for lambs.

"Last year was phenomenal. We had a wet spring and the ryegrass just took off with Fodder Max. Even though it had been grazed for half the growing season, it still yielded 7t/ha or better of hay, probably better than the oats," Matt said.

**Table 2. Fodder Max**

| Typical analysis (%) | | | Bulk density t/m$^3$ |
|---|---|---|---|
| N | K | S | |
| 30.4 | 7.5 | 8.5 | 0.87 |

*Fodder Max is a good balance of nitrogen, potassium and sulphur, designed to support strong spring grass growth.*

*Some of the Gillett's swathed ryegrass in 2020. Swathing helps them harvest ryegrass seed, which can then be resown the following season to establish pasture paddocks after the cropping phase.*

# Satellite based NDVI data at your fingertips in SummitConnect

Summit's Technical Services offering has continued to evolve and last year we partnered with DataFarming, a leading Australian precision agriculture company based in Toowoomba, Queensland.

As a result of this partnership, Summit clients now have free access through the SummitConnect user platform to 10 x 10m resolution NDVI (normalised difference vegetation index) images.

NDVI is a measure of the greenness (reflected light) of plants over an area and can be a useful tool for comparing differences in vegetative growth. Variations are not always visible to the naked eye, but can be picked up by remote sensing tools.

The NDVI images that are used in SummitConnect are from satellite data that is updated at least every 5 days. Data can be accessed back to 2017.

Using the trend map feature in SummitConnect, these NDVI images can be overlaid with Summit's inSITE soil test results.

This can provide our clients with new ways of assessing their paddock's performance.

For the Summit Area Manager team, having access to NDVI data is also proving to be a useful tool.

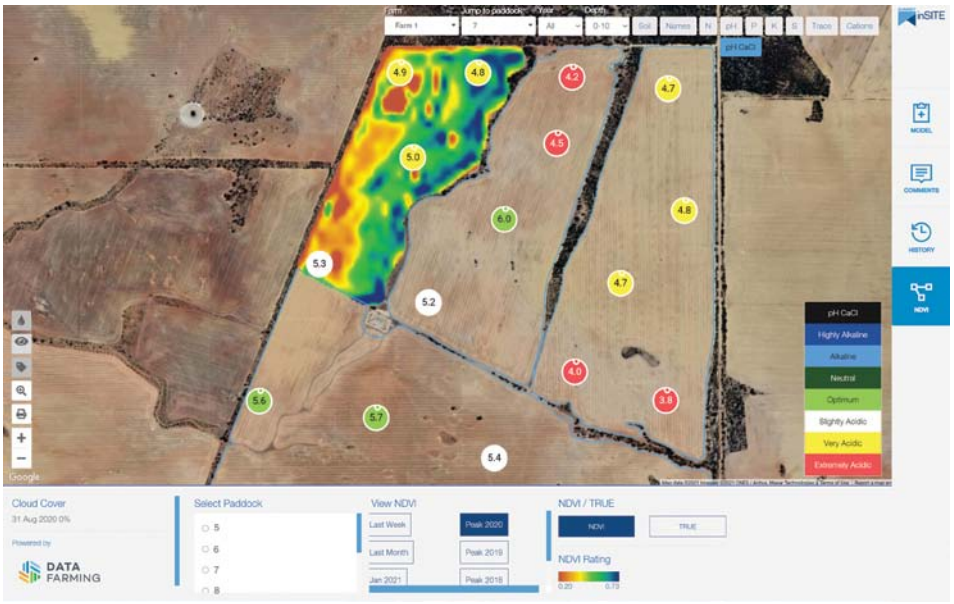
It enables them to more easily identify problem areas in paddocks that can be followed up for further investigation with inSITE Soil and Plant analysis.

We believe the Summit Fertilizers - DataFarming partnership is a fantastic opportunity for growers who are on any part of their journey with precision agriculture.

It may be as simple as looking to gauge some near real time feedback, or historic analysis of the relationship between soil nutrient testing, fertilizer applications and crop and pasture growth.

Ultimately, we're set on providing our customers with the most accurate data, in the most accessible way, enabling them to make better decisions with regard to their fertilizer inputs for next season and beyond.

For further information about SummitConnect, get in touch with your local Area Manager.




*A SummitConnect trend map showing inSITE soil analysis results (soil pH at 10-20cm depth across all years) overlaid with NDVI data. The blue areas indicate higher NDVI readings and the red/orange areas show lower NDVI readings.*

# Variable rate working well for Darren and Jack

Darren Keeffe and his brother Jack are now well down the path of variable rate fertilizer application. They say the main obstacle to making it all work has been integrating the technology and getting the equipment to work together. The biggest asset has been getting somebody who understands the technology, their farm soil types and yield potential. The financial gains have come from not wasting fertilizer on less productive country and improving yields on soils that have higher yield potential.

The Keeffe's moved from Mullewa 16 years ago and now farm north and south of Watheroo.

Their farm traverses some highly variable soil types. On what they call the home farm south of Watheroo, soil types are predominantly heavier York gum and Salmon gum transitioning into gravels which can change into white sand over gravel. Their farm to the north is typically Watheroo sand plain. The Keeffe's crop program this year covers about 7,300 ha.

Darren says within paddocks, soil types can be highly variable and that causes significant challenges in terms of matching nutrition with yield potential.

"The move to variable rate really started about six years ago at the farm south of Watheroo, where we thought we were just losing too much top end yield," he said. "It really came about from Jack driving the header saying "why isn't that area there that's thicker and grows better, not yielding higher than it is?" I think we were just mining the fertility on those really good parts of the paddock. Other areas only ever went 1.5t/ha, no matter what we threw at them.

"All the sand has now been mouldboard ploughed, which has made a huge difference to their non-wetting properties and we're now deep ripping them to 500 mm and seeing some pretty good results. We have lifted yields on our sands, but we reckon that's now levelled off because of their limited capacity to hold water.

"We started variable rate by looking at yield maps and realizing we're not really getting the top end yields and started implementing steps to improve our productivity.

*Summit Area Manager, Brett Beard, and Watheroo farmer Darren Keeffe discuss fertilizer strategies for the coming months. Darren and brother Jack will assess the season as it unfolds with the plan being to variable rate NKS according to crop needs over three or four zones.*

"For example, where we are at now, if we're working on a paddock then we try to replace that nutrition and add a little bit more as a buffer. So, say its 80 units of N that's required overall for 3t/ha of wheat, then the good parts get more and the low yielding parts need less, because as we all know, they always yield less. So why are we over fertilizing them? Some areas will only ever go 1.5t/ha, so we'll fertilize them for 2t/ha yield potential. At least you're not fertilizing it for a 3 tonne crop.

"One of the things we're trying to do is to not have a zero-nutrient balance. We're trying to have a bit of fat in the system so if you do have a good year, you've got a bit of nutrition in reserve. Last year we tended to under fertilize for what it went in the end.

"Most paddocks have 3 zones, some have 4. That's all worked out from the yield maps and soil tests. We'll then fertilize to those zones, so we're not really using more fertilizer in total.

"For example, a seeding application of a customised formulation of MAPSZC/MOP might go from 50 to 95kg/ha and average 70 to 75kg/ha across the paddock. We prefer to use high analysis fertilizers for their lower application rates and better handling logistics.

The air-seeder just goes further for every box full, there's less fill up time and transport cost.

"We don't vary the UAN at seeding. That's a constant of 50L/ha of UAN down with the crop. And post sowing we are applying Summit NKS fertilizer according to the crop needs and season. It goes off exactly the same zones as the MAPSZC/MOP blend. We're pretty heavy dolomite users here as well and it appears to be doing a good job going off our soil test results.

"Tissue tests are showing the importance of having potassium in the soil and a lot more K is now going into our soils, just to keep up.

"We variable rate potash in front of seeding and this year bought 150 tonnes to do about 1500 ha, ranging between 60 kilos and 120kg/ha.

"Variable rate is not meant to reduce variability. At harvest we are seeing crops yields that are even more variable but the crop profitability is enhanced," Darren said.

*Darren and Jack Keeffe who farm at Watheroo used a MAPSZC/MOP blend at seeding with the rate varying this year from 50 to 95kg/ha, depending on soil type and yield potential. Darren said they prefer to use high analysis seeding fertilizers because the air-seeder box just goes that much further, there's less fill up time and transport cost.*

## Summit nitrogen fertilizers

Summit offers an extensive range of nitrogen based products.

Table 4 outlines fertilizers that supply a concentrated source of nitrogen.

Urea remains the most cost effective source of nitrogen for growers, while our other products in the range contain additional sulphur or potassium (or both) for specific requirements.

Summit's liquids range is also suitable for both cropping and pastures.

We offer UAN (urea ammonium nitrate) for where only nitrogen is required and MAXamFLO which also contains sulphur.

The benefits of using liquid fertilizers includes:

- Ease of handling and storage
- Flexibility and uniformity in placement of fertilizer
- Doesn't break down between seasons in storage
- Handles well in all conditions
- Uniform composition of nutrients and uniform bulk density
- Reduced dependence on spreading contractors

**Table 3. Nutrients removed by each tonne of wheat**

| | Macronutrients removed (kg/t) | | | | Trace elements (g/t) | | |
|---|---|---|---|---|---|---|---|
| | N | P | K | S | Cu | Zn | Mn |
| Wheat | 23 | 3.5 | 5 | 1.4 | 5 | 29 | 40 |

**Table 4. Concentrated Summit nitrogen fertilizers**

| | Typical analysis (%) | | |
|---|---|---|---|
| Nitrogen range | N | K | S |
| **Urea** | 46 | | |
| **UreaPlus** | 37.3 | | 8.4 |
| **NitroPlus** | 33.5 | | 12 |
| **Amsul** | 21 | | 24 |
| **Fodder Max** | 30.4 | 7.5 | 8.5 |
| **NKS21** | 28.8 | 12.5 | 5.7 |
| **NKS32** | 25.6 | 16.5 | 5.3 |
| **NitroMOP** | 23 | 25 | 0.4 |

| Liquid range | N | K | S |
|---|---|---|---|
| **UAN (w/w)** | 32 | | |
| **UAN (w/v)** | 42.2 | | |
| **MAXamFLO (w/w)** | 22 | | 6.2 |
| **MAXamFLO (w/v)** | 27.7 | | 7.8 |

*Summit liquids, UAN and MAXamFLO are sold by weight (tonnes) but generally used by volume (litres). NB, 1 litre of UAN weighs 1.32 kg and 1 litre of MAXamFLO weighs 1.26 kg.*

# Fuel Gauges inspire a change in N strategy

*As for many growers across the wheatbelt, the 2021 season for Greg, Sheldon and Debbie Garlick of Katanning has got off to a terrific start. They will be monitoring conditions closely from here and managing nitrogen inputs accordingly. More early nitrogen has proven to be a fortunate decision this year.*

The past few years for Greg and Debbie Garlick have produced relatively dry starts, leaving them wondering about the season ahead. But this year the crops have gone in early with plenty of soil moisture and things to date are looking really good.

Greg reckons it just might be the year to pump in a bit more nitrogen, and he's pleased he made the decision at the end of last year to set up his air-seeder to apply liquids.

This year for the first time, 30L of liquid N has gone down at sowing with either Summit DAPSZC or a DAPSZC/MOP blend, depending on soil type.

Putting into action the addition of liquids into the sowing program hasn't been without its hassles, nevertheless, it's been driven by Greg's desire to:

- apply a soil wetting agent at seeding to cope with some non-wetting soil types – a situation made worse in the dry starts: and,
- apply more early nitrogen as highlighted by Summit Fuel Gauges.

Greg and Debbie farm 2,600ha with their son Sheldon, 25km east of Katanning near Lake Ewlyamartup. They now have close to 80% of their farm in crop each year.

Their soils vary from lighter country through to medium loams. On the lighter country they typically run a lupin/barley rotation and on the heavier country, it tends to be more canola, wheat, export hay and then back to wheat or barley. In some paddocks, it's year in year out wheat, pasture.

"We've had the benefit of Chloe Turner's Fuel Gauges in both our wheat and barley crops," Greg said.

"Depending on the season, they have shown some fairly clear responses, so it's evident we do need more N in the system. The gauges are just simple strips in the paddock, but they are interesting to watch.

"In some years they have shown us we could increase yield by 20%, of course, it all depends on rainfall and how the season finishes.

"So, we decided to add some more nitrogen into the rotation, and go in with a liquid application early. It's one way of improving efficiency and now we can better play the season as it develops.

"In the past we've just put urea on at early tillering with some paddocks getting a split application. But this year, we've got more N down with the crop. Depending on how the weather plays out from here, we'll probably still split some N applications, depending on how wet it is. I'll be interested to see how the crops come out of the ground and their early growth."

Greg said ironically, with the start of this year being so wet and the soil moisture so good, he dropped the wetter out of his program.

# Fuel Gauge strips in lupins target P and K

WA farmers like Greg and Debbie Garlick (page opposite) are critical to the advancement of Summit Fertilizers' large trial program. Without assistance with sites and help with a range of operational matters, the trials program just wouldn't be possible.

Greg has replicated plot trials on his property this year in wheat and lupins. Phosphorus rates, seed P carryover and flutriafol x K rates is under investigation in wheat. The trial in lupins looks at P and Mn from two different seed sources of the same variety, to see if there is any response.

As the season progresses they will no doubt be under the watchful eyes of Summit Area Managers Chloe Turner and Mark Stephens (right).

Area Managers too make their own valuable contribution to farm nutrition evaluation and advice. Many Fuel Gauge sites are set up each season as a guide to how farmer practice is performing.

In addition to the replicated plot trials on Greg's property, Chloe has placed Fuel Gauge strips in lupins. The P, K, and P x K strips were installed prior to seeding, so that the fertilizer


*Summit Area Managers Chloe Turner and Mark Stephens on Greg Garlick's property at seeding. Greg had just sown lupins. Prior to sowing Chloe had placed Fuel Gauges for high rates of P, K and P&K.*

was incorporated and more readily available. MOP was applied at 100 kg/ha (50 units of K). TSP was applied at 200 kg/ha (41 units of P).

"Most of the time P and K gauges are additional to our N Fuel Gauges in cereals and canola. Lupin requirements and responses can get overlooked," Chloe said.

"Given the current price of lupins and feed grain, growers are wanting to get the best yields they can.

"Nitrogen gauges are intended to give growers an indication of requirements throughout the season. P and K levels aren't normally rectified in-season, but it is still worthwhile to look at rates so growers can workout if they need to test increasing levels next season."

# Congratulations Craig on 25 years with Summit!

Behind the scenes at Summit Fertilizers there are plenty of people who make huge contributions to the business.

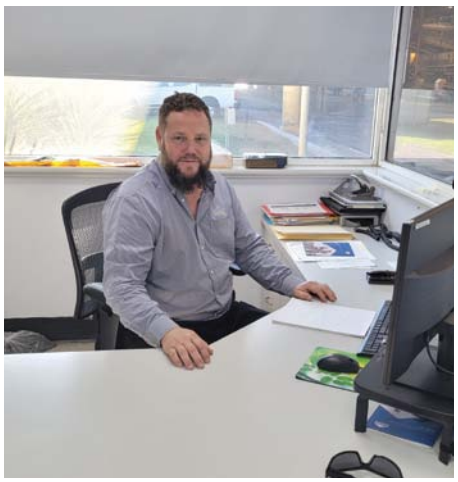
Craig Coutts is a great example. He has just clocked up 25 years with us.

Craig started at the Kwinana Depot back in May 1996 as a labourer when shed 2 was constructed. He moved on to mobile/fixed plant operator/ dispatch, progressed to Operations Supervisor and now assumes the role of Operations and Logistic Manager.

His day-to-day role includes overseeing fertilizer receivals from ships, truck loading and unloading, and forklift operation.

Shipping can consume many long hours and of course there is time spent away from home at our port depots of Albany, Geraldton and Esperance.

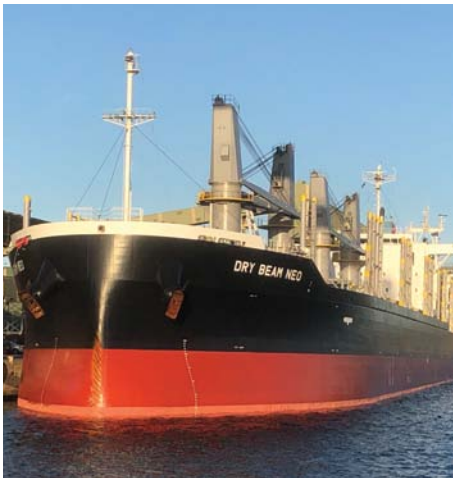
Craig has overseen more than three million tonnes of fertilizer



*Summit Fertilizers Operations and Logistic Manager, Craig Coutts.*

receivals from ships since starting with Summit!

On average,15 ships of fertilizer are unloaded each year, although this season will be up on that.




*Unloading of MV Dry Beam Neo, delivering MAPSZC into Esperance back in January 2021.*

Craig says it has been rewarding being involved in the growth of Summit over time and of course each and every day is different. There is always a new challenge to work through.

# Your Local Summit Fertilizers Area Manager

GERALDTON
Shane Turner
0429 947 919

COOROW
Juliet McDonald
0429 945 332

WONGAN HILLS
Brenna Gray
0408 711 954

MOORA
Brett Beard
0429 900 607

NORTHAM
Brayden Noble
0417 490 047

KELLERBERRIN
Tracey Hobbs
0429 470 007

MERREDIN
Kobus Marais
0427 766 508

NARROGIN
Brett Coxon
0427 766 506

CORRIGIN
Steve Cooke
0429 934 243

BUNBURY
Ralph Papalia
0427 766 535

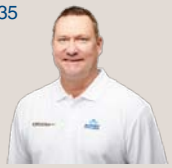
WILLIAMS
Jarrad Martin
0427 788 521

KOJONUP
Chloe Turner
0447 469 245

LAKE GRACE
Mark Stephens
0427 766 517

ESPERANCE (WEST)
Tim Donkin
0408 092 355

ESPERANCE (EAST)
Nick Donkin
0428 715 045



ALBANY (WEST)
Mark Ladny
0498 223 421

ALBANY (EAST)
Andrew Wallace
0427 083 820

SUMMIT FERTILIZERS

**www.summitfertz.com.au**

**Summit Fertilizers - 29 Ocean St, Kwinana Beach, WA 6167**
**ABN 49 058 794 737**