

e-feedback

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July 2013



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Poppies and GOGO Juice, a winning combo

It is a little known fact that Tasmania is the world's largest producer of opium alkaloids for the pharmaceutical market, producing 50% of the world's supply. Opium alkaloids such as morphine, codeine and thebaine are derived from the humble poppy (*Papaver somniferum*).

Brett Pritchard has been growing approximately five hectares of poppies at Hayes in Southern Tasmania. He has grown poppies for 20 years for Tasmanian Alkaloids and GlaxoSmithKline, growing

both morphine and thebaine poppies. In recent years thebaine poppies have been predominantly grown in the south of the state and the morphine poppies in the north. Brett's recent thebaine poppy crop was not growing in the early stages of development as well as we would have liked. His field officer, Noel Bevan suggested to Brett he trial an application of kelp-based fertilisers to improve growth.

An application of GOGO Juice to one half of the paddock and another kelp-based

fertiliser to the other was recommended and agreed upon. Both fertilisers were applied at the rate of 10 litres per hectare, diluted in 100 litres of water and applied using a boom sprayer. Crop performance was monitored throughout the season and although both products performed well, significant advantages were noted for the plants that were sprayed with the GOGO Juice. "The plants sprayed with GOGO Juice showed better growth and appeared stronger and healthier" explains Brett. "They formed more heads and this was evident by the prolonged flowering on the side of the paddock sprayed with GOGO Juice."

Additionally, "there was also no evidence of crop damage where over-spray from other chemicals existed, for example, at the end of spray runs. The other side of the paddock that had an alternate kelp-based fertiliser applied showed significant crop damage where over-spraying was unavoidable."

Brett concludes "I believe GOGO Juice out-performed the other kelp-based product applied to my poppy crop during the 2012-2013 growing season and I would have no hesitation in applying GOGO Juice to future poppy crops."



Brett's partner Alison enjoying the poppies

SPOTLIGHT

GOGO Juice is literally teeming with beneficial microbiology and is essentially a pro-biotic for soils and plants.

The carefully selected microbes have been proliferated utilising complex carbohydrates and sugars through a unique aerobic brewing system in which kelp, seaweed, fish, humic acid and manure have been digested by the beneficial bacteria.

The resultant liquid product will supply your soil and plants with a huge boost of the living microbiology necessary for them to perform at their optimum level, increasing their ability to resist pest and disease and to withstand heat and frost stress.



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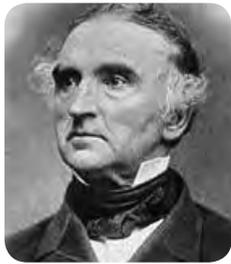


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Liebig's theory sits at the root of Neutrog's philosophy



Liebig's Law of the Minimum, often simply called Liebig's Law or the Law of the Minimum, is a principle developed in agricultural

science by Carl Sprengel (1828) and later popularised by Justus von Liebig.

It states that growth is controlled not by the total amount of resources available, but by the scarcest resource (limiting factor).

This concept was originally applied to plant or crop growth, where it was found that increasing the amount of plentiful nutrients did not increase plant growth. Only by increasing the amount of the limiting nutrient (the one most scarce in relation to "need") was the growth of a plant or crop improved.

This principle can be summed up in the aphorism, "*The availability of the most abundant nutrient in the soil is only as good as the availability of the least abundant nutrient in the soil.*"

An image of a barrel, often called Liebig's Barrel, is used to explain Liebig's law.



Just as the capacity of a barrel with staves of unequal length is limited by the shortest stave, so a plant's growth is limited by the nutrient in shortest supply.

Liebig's Law has been extended to biological populations and is commonly used in ecosystem models.

$$\frac{dO}{dt} = O \left(\min \left(\frac{\mu_{II}}{k_I + I}, \frac{\mu_{NN}}{k_N + N}, \frac{\mu_{PP}}{k_P + P} \right) - m \right)$$



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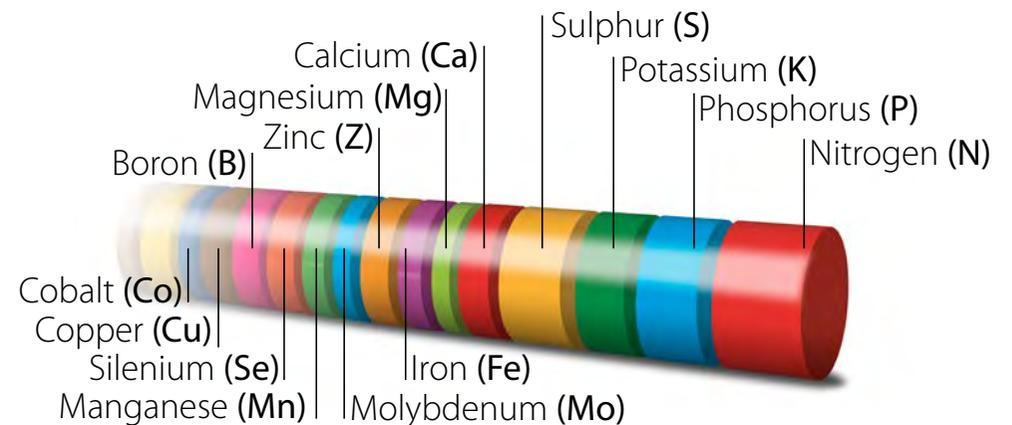
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Each pellet of Neutrog Fertiliser contains a full range of macro and micro plant nutrients and its pellet form allows for uniform application.



By using Neutrog fertiliser you reduce your risk and increase your potential by covering more bases.





Stephen Michelmore

A chip off the old block



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Stephen Michelmore has been a farmer in the Langhorne Creek region for 30 years and the farming history in his family goes back for generations. Stephen's predominant crop is potatoes, in which he grows 200 hectares - 160 hectares in the Langhorne Creek region and 40 in the lower Mallee.

In the early years, Stephen was growing garden variety potatoes to be sold at market; however, he soon discovered growing crisping potatoes could produce a better return on investment as the quality control measures for these varieties are not as stringent.

The main requirements for a crisping potato are their cooking quality and how high their specific gravity is. Specific gravity relates to the percentage of dry matter in the potatoes. The more dry matter in a potato the less moisture, which means more potato remains once cooked and therefore more value for money. Potato yield, size and defects are also monitored for crisping potatoes, but not as critically as those that do not go into the processing industry.

In addition to being a crisping potato grower for one of Australia's most recognised potato chip brands, Stephen also grows 40 hectares of carrots and 30 hectares of vines at Langhorne Creek.

His grapes are grown for global wine brand Treasury Wine Estates and his carrots go to Zerella Holdings, a major supplier of carrots (as well as potatoes and onions) to Woolworths and other supermarket chains. Having only grown carrots for a few years, Stephen admits he's still learning about them. "It's all trial and error" says Stephen, "for example, unlike potatoes, you can't over-fertilise carrots otherwise they'll all fork. I've learned that the hard way!" Stephen uses Neutrog's Seamungus on his carrots and is trialling our newest product to market, Gyganic on his spuds.

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SPOTLIGHT

Your crops will just love Seamungus...

...jam packed full of goodness, Seamungus is a soil and plant conditioner, manufactured by composting seaweed, fish, humic acid and manure.



Seamungus undergoes a unique composting process, specifically developed to stabilise the nutrients, maximise nutrient availability and to ensure the product is free of any parasites, pathogens and weed seeds. Most importantly, the resultant product retains the microbiology necessary for a 'living' product.

Seamungus will help increase resistance to pests and disease, stimulate healthy growth (both above and below ground) and most importantly, generally aids in improving the well being of your soils and crops.



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Glenbrook hits the ball out the Park

Father and son team Neil and Brenton Willsmore of Glenbrook Park know a thing or two about growing grapes for wine production. They have been growing and supplying grapes for 17 years for global wine company, Treasury Wine Estates.

More specifically, Glenbrook Park grapes are grown for Treasury's most famed wine brand, Penfolds. Penfolds is of course home to the legendary Grange, which is recognised as Australia's most prestigious and iconic wine.

Whilst Glenbrook Park's grapes don't go into the renowned Grange blend, they do make it into other iconic wines, such as St. Henri and Bin 707, Penfolds Cabernet version of Grange. The focus of Glenbrook Park is mainly on growing red varietal grapes, with the exception being Chardonnay, to which they grow for the inclusion into the Thomas Hyland range.

Growing 'A grade' grapes year on year requires precision care and just the right balance of nutrient inputs. They need to be consistent



with their applications so that the right nutrients are available for the vines when they need them, but without overfeeding. Neutrog have been supplying Glenbrook Park with their vineyard nutrition requirements for over 10 years. Brenton says "the first few years (of grape growing) was kind of suck it and see as we didn't really know what we were doing and were using a lot of off the shelf fertilisers." But then Brenton and his father Neil were introduced to Neutrog's Rapid Raiser and have been happy with the results ever since. "We prefer the organic fertilisers with the gentle approach to delivering the right nutrients to our soil in the vineyard. We want healthy vines without excessive vigour. Since using Neutrog we have been able to achieve this and are very happy

with the results."

This year, however, Brenton and Neil will be amending their fertilising program and using a prescription mix provided by Neutrog, based on their specific soil requirements. By using this prescription mix, it will negate the need they have had in the past to top up the vines with synthetic fertilisers. Brenton says "We have met with our agronomist and the Neutrog representative to manufacture a prescription mix for our vineyard. We are really looking forward to seeing the result, as it will save us time and money." Brenton adds, "We are looking forward to another good year and working with Neutrog in the future to maintain our soil and fertiliser balance."

Did you know?

Neutrog can create prescription mixed products to suit your specific requirements. So look no further when it comes to creating the right balance for your plants and soil and enquire about creating your own prescription mix today.



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Broadacre Update



Our Bounce Back versus DAP trials with the agronomy consulting group, YPAG are well under way and the crops have now come out the ground. However, early feedback is that the DAP fertilised crops have shot out of the ground in comparison to those fed with Bounce Back. This is to be expected. In the early stages of growth and through the winter months, Neutrog or organically-fed crops are slower out of the ground; however, as time goes on or temperature increases, you should see the crop slowly catch up.

By the end of the growing cycle, growers will also find that the Neutrog grown crop is likely to have an extended growing period, and it is this extended period that allows for higher protein levels to be generated.

Higher protein levels generally mean a more extensive root mass. This provides these plants with a greater soil surface area from which to draw nutrients and moisture, allowing the plants to cope better through periods of heat and moisture stress.

If you are interested in trialling Neutrog products please contact us or your preferred distributor for a trial application form.



NEUTROG'S BIG ANNOUNCEMENT

We are happy to announce that we will be diversifying our product offering to include the supply of bulk chicken manure; from raw to composted and screened or unscreened. We can also create custom blends to include any added requirements such as kelp, seaweed and carbon. So whatever you require, we have your bulk chicken manure needs covered.

Please call Neutrog to speak to one of our reps for further information.

*Currently this service is only available to our South Australian customers.



Contact your local representative freecall 1800 656 644

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