

WINTER 2020

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ORGANIC INSIGHTS

THE MAGAZINE OF THE NATIONAL ASSOCIATION FOR SUSTAINABLE AGRICULTURE AUSTRALIA



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AUSTRALIAN  
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RESTORING  
NUTRITION AND  
IMMUNITY



## WE STARTED THIS EDITION WITH A CERTAIN GLOOMINESS AROUND THE UNCERTAINTIES PRESENTED BY COVID-19

WE'VE PUT IT TO BED FEELING  
SOMEWHAT MORE POSITIVE

Mark Gower  
/ General Manager

Certainly, many of our operators continue to be affected by social distancing measures, particularly our food processors, wholesalers and retailers.

As food is recognised as an essential service, many continue to prosper, especially those supplying the domestic market – albeit with modified practices in place. We thank everyone, particularly for their cooperation with adaptations to organic inspection and audit processes.

Australia's relatively low infection rate, coupled with targeted Government stimulus, all point to a likely positive recovery at this point, particularly in agricultural production. A recent ABARES report highlights short to medium term challenges in supply chain performance (particularly for exports), availability of seasonal labour, and a potential softening of prices, but we are yet to see whether this will impact organic product.

Local food production has emerged as a pandemic champion, with the US Guardian reporting that "local farmers have proven more reliable in a crisis than the industrial food supply chain." Producing our own food and shopping local has never been more valued.

Ant from Tellurian Fruit Gardens certainly knows this, as he shares with us the benefits of his business model, including Community Supported Agriculture (CSA).

Home gardening earns its own pandemic guernsey and we know you'll be inspired by our practical guide to starting your own patch with organic expert, Tim Marshall, and as a bonus, savor the fruits of your labour with a tasty seasonal recipe from fermenting goddess and former MasterChef contestant, Mandy Hall!

We acknowledge it's not all roses and hope that you will be inspired, however, by our story from Lark Hill Winery, who like many, faced the triple whammy of drought, fire impact and now, COVID-19. It's a positive story of innovation in the face of great hardship. Similarly, I'm sure you'll enjoy our story on Australian Kelp Products, a great example of people helping others in need.

**Lockdown has got us all thinking about the bigger philosophical issues**, bringing us to that fundamental question, "Will the

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pandemic translate to a healthier future environment?

It's reported that coronavirus is likely to trigger the largest ever annual fall in CO2 emissions. The BBC reports that in New York, pollution levels have reduced to half; in China, emissions fell by 25%, coal use falling by 40% at the country's 6 largest power plants. For many congested cities, the pandemic has literally provided a breath of fresh air, with air quality indices improving substantially.

*Is this a temporary dip, or a future shift?*  
Will clear skies provide the visibility and vision needed to put in place the building blocks to a sustainable, decarbonized economy?

It's said that times of great change can lead to the introduction of lasting habits.

In an interview with the ABC, Dr Kimberley Norris, an authority on confinement and reintegration at University of Tasmania, found those who have been through isolation emerge with a better idea of their personal

values, and are more committed to acting on them.

"That's why, post-COVID, we will see differences in the way people engage with each other, in the way people work, in the priorities given to the environment, and the way people think about travel," she says.

The rapid activation of Governments around the world to address the global pandemic presents a model for what is really possible when it comes to taking drastic action to reduce emissions.

Whilst most of the current focus has been on transport, electricity demand and industrial activity, we know that we will continue to play our part in agriculture, to inspire a better method of working within natural systems, to deliver environmentally sound, safe and nutritious food.

Keep well and look after each other.

Mark Gower

# The Seaweed Specialists.



Seaweeds have been used to improve soil condition for over 1000 years. It is a core component in biological agriculture that is an indispensable biostimulant that can provide a number of beneficial properties such as:

- Frost resistance.
- Root promotion.
- Improved flowering & fruit set.
- Bio-balancing.
- Stockfeed Supplementation
- Stress resistance.

Australian Kelp Products Pty Ltd (AKP) is a specialist seaweed product company situated in the Limestone Coast, southeast region of South Australia.

One of their products, **Southern Ocean Seaweeds – SOS Liquid Kelp** is produced from natural Australian *Durvillaea Potatorum* - Bull Kelp, which contains a rich source of natural trace elements, mineral, alginic acid (alginate), amino acid and an array of complex organic compounds, making it perfect for organic farming.

**SOS Liquid Kelp** improves and helps aerate the soil structure, which is good for plants' respiration and nutrition-absorption, as well as enhancing water retention of plants.



Australian Kelp Products



To find out more visit [auskelp.com.au](http://auskelp.com.au), email [info@auskelp.com.au](mailto:info@auskelp.com.au) or call 08 8734 4466.



# Australian kelp products

## HELPING BUSHFIRE AFFECTED FARMERS TO RESTORE SOIL HEALTH

On hearing of our recent Regenerate and Recovery bushfire event, we were contacted by Leo Lin, COO of NCO certified input manufacturer, Australian Kelp Products, with an offer to donate 5,000 litres of Southern Ocean Seaweed (SOS®) Liquid Kelp product to affected farmers.

Australian Kelp Products are a specialist seaweed product company with a manufacturing base at Millicent, on the Limestone Coast in South Australia. The company uses local natural seaweeds to create a range of quality products, including feed stock and soil conditioners, that are distributed throughout Australia.



The Limestone Coast area is home to a wide range of seaweed species (more than 1,100) that are extremely rich in natural vitamins, minerals and trace elements. Natural seaweeds have been used to improve soil condition for over a thousand years. It is a core component in biological agriculture as an indispensable bio stimulant that can provide several beneficial properties.

SOS® Liquid Kelp (an NCO certified input) has been on the market for over 10 years and

has received positive feedback in helping to maintain the bio system balance in soil. It is produced from bull kelp, which contains a rich source of trace elements, mineral, alginic acid, amino acid and array of complex organic compounds.

Following last year's catastrophic bushfires in the Adelaide Hills, Leo was keen to help in a way that would be beneficial to affected farmers. Hearing that NASAA was to deliver a specific bushfire recovery event, Leo offered support to affected farmers, and has since been delighted with the response in getting the product out.

5000 litres of SOS® Liquid Kelp has now been distributed to 16 farmers across the fire affected area from Woodside, Cudlee Creek, Lenswood, Harrogate and Charleston.

In conjunction with NASAA, **Kym Green** from Ellimatta Orchards, a certified organic

/ Continued from previous page

cherry and apple grower in Lenswood, who lost half of his orchard during the Adelaide Hills Fire, has assisted in distributing the liquid kelp to other fire affected farmers.

The kelp will be very beneficial to help the soil recover from the bushfire for new planting and a new beginning.

Thank you to Leo and Australian Kelp, and we look forward to checking in on the recovery journey of our farmers.

#### Further Information

[auskelp.com.au](http://auskelp.com.au)



**GITA DU PLESSIS  
WAS THE GRATEFUL  
RECIPIENT OF 1,000  
LITRES OF SOS®  
LIQUID KELP (WORTH  
\$5,000).**

Gita, who is currently QA Manager with NCO certified processor [Australian Pure Fruits](http://AustralianPureFruits.com.au), lives at Woodside in the Adelaide Hills and runs 90 cattle on 150 acres.

Searing images of Gita's burning shed formed the backdrop to the Channel 7 News' rolling coverage of the bushfire.

The fire burnt through 90% of the family's paddocks, and Gita, her partner, neighbour, uncle and father worked tirelessly to save both their house, and their neighbour's. Fortunately, they were also able to save all their cattle by herding them into a protected run.

Post fire, the cattle have been grazing on a neighbour's reduced 10-acre property, with brought in feed, and fodder donations from the Livestock SA distribution station.

Gita will be using the liquid kelp to restore her own property, but will also be applying it to the neighbour's property to repay the generosity in allowing their cattle to graze. She truly appreciates the value of a biological approach in restoring soil health and plans to apply the kelp in May as the traditional fertigation period.

## REGENERATE AND RECOVERY

Keynote speaker Tim Marshall spoke at our recent Regenerate and Recovery event of the immediate need to restore soil health and fertility post fire, and to combat water repellency (a legacy of fire) through application of compost, compost teas and soil conditioners (in particular, liquid seaweed).

Find out more in our Autumn edition of Organic Insights here <https://cld.bz/ppuGtqe> and take a look at video footage from the Regenerate & Recover event here: [www.youtube.com/watch?v=Lg8rqAft7V8](https://www.youtube.com/watch?v=Lg8rqAft7V8)

## AGRIFUTURES AUSTRALIA HAS JUST ANNOUNCED ITS 'BLUEPRINT FOR A \$BILLION AUSTRALIAN SEAWEED INDUSTRY.'

The Seaweed Industry Blueprint project (a joint project with the Australian Seaweed Institute) is designed to unite existing seaweed research and aquaculture efforts into an action plan to accelerate investment and development. The project recognises the favorable growing conditions in Australia and huge export opportunity for high value bioproducts from native seaweeds.

The industry is forecast to create new coastal jobs, help to protect and regenerate waterways and contribute to greenhouse gas reduction.

#### Further information

[www.agrifutures.com.au/news/blueprint-for-a-billion-australian-seaweed-industry](http://www.agrifutures.com.au/news/blueprint-for-a-billion-australian-seaweed-industry)





# In times of great change... shop local!

From home gardening to local Farmers Markets and Community Supported Agriculture (CSA), shopping local has been never more valued than now.

A recent report from *The Guardian* in the US\* highlighted that “local farmers have proven more reliable in a crisis than the industrial food supply chain.”

Certified organic orchardist Ant, of Tellurian Fruit Gardens, wholeheartedly agrees.

Part of the [Harcourt Organic Farming Cooperative](#), featured in our [Winter 2019 edition of Organic Insights](#), Tellurian Fruit Gardens is an NCO certified organic fruit orchard, growing cherries, apricots, peaches, nectarines, plums, apples and pears.

Ant has been farming the orchard for around 3 years now and has been involved with the co-op since inception. Produce is sold through CSA shares, Farmers Markets, pick-your-own, farm shop, and custom orders.

According to the Guardian report, the [US] industrial “food supply chain is highly specialised and consolidated; that makes it highly efficient in the best of times, but also inflexible and vulnerable to unanticipated strain.”

Ant agrees, saying that, “the direct to consumer model, with its shorter supply chain, has provided enormous benefit in this pandemic.”

“We’ve seen in the supermarket model, or in any other vertically integrated system, how easily things can be ground to a halt by a blockage in any one part of the supply chain,” he says.

“Transport, warehousing and distribution

for example have all been affected; we’ve seen that when one aspect of the chain is shutdown, the result can be food wastage and/or supply shortages.”

“Our model has far greater flexibility, we are agile and can quickly react to different challenges.”

Ant is a particularly passionate advocate for CSA, which he introduced to the farm business model.

“In a nutshell, CSA is the ultimate direct sales relationship and solidarity economy between farmers and eaters,” says Ant.

“CSA is something that each enterprise here at the co-op have been doing since before the pandemic and it has given us security and flexibility in this time,” he says.

Food safety is seen as another benefit of local food systems, with the Guardian reporting ‘cautious shoppers feeling the direct-to-consumer model is safer than dawdling around a grocery store’s produce aisle.’

“Ultimately, you know where your food is coming from, there are less steps involved and, therefore, less handling,” says Ant.

He admits, though, that they have had to put some changes in place to further ensure food safety during this time.

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"We've had to change some practices, putting measures in place at our Farmers Markets to avoid people touching food product, and offering more options for farm pickup for those who might be vulnerable in a populated market space," he says.

"Customers are really happy with the care we have taken to ensure that we are getting food to them in the safest possible way."

Ant had no family background in farming before starting Tellurian Fruit Gardens, but had worked on several small-scale, regenerative farms.

"There were heaps of advantages for me in taking over an existing system, infrastructure, and machinery and equipment," he says.

"It allowed me to enter farming with less

of an initial investment, and to start a viable business first."

"The social aspects of working with others on the land are great too," he says.

"While I haven't changed the overall orchard production, I have changed the business model, and this included introducing CSA."

"Because of the seasonal commitment, food security is not an issue; we have the confidence to grow, and our customers have a guaranteed supply of food," he says.

"It's a genuine win-win."

**Psychology suggests that times of change can lead to the introduction of lasting habits. Shopping local may no doubt be one change people will be making for life.**

#### Further Information

[www.tfgardens.com.au](http://www.tfgardens.com.au) and [afsa.org.au/csa](http://afsa.org.au/csa)

\* [www.theguardian.com/commentisfree/2020/apr/23/us-farms-csa-food-coronavirus](http://www.theguardian.com/commentisfree/2020/apr/23/us-farms-csa-food-coronavirus)



## A CHANCE TO CREATE YOUR OWN CSA OR COOPERATIVE VENTURE?

Mary Done, of Wymah Organic Olives and Lamb in NSW is one operator grappling with the common, yet difficult decision to step back from the 374Ha farm she founded in 2001.

"It may be time for me to step back from life as a sustainable organic farmer, she says, "but, that's no reason that the soil, the clean water, the trees, the birds, insects and other natural life – the 'sustainable farm' – should step back as well."

"It's time to pass on the baton."

The NASAA Field Day at NCO certified property Mt Alexander Fruit Gardens in 2017 inspired Mary. Owned by Katie & Hugh Finlay and now known as the Harcourt Organic Farming Cooperative with five members; Gung Hoe Growers, Sellar Farmhouse Creamery, Tellurian Fruit Gardens, Carr's Organic Fruit Tree Nursery and Katie & Hugh's on-line organic fruit growing teaching business, called Grow Great Fruit.

"I saw a chance the collaborations can grow these days – whereas in previous decades – few such enterprises survived," says Mary.

Mary is seeking expressions of interest in collaboration, to ensure the NCO certified property continues to "grow and prosper, both as a way of life and as a living piece of the planet". The farm provides the opportunity to grow the existing production or to add further ventures.

In addition to the farm operation, the property includes 30 hectares dedicated to mixed eucalypt and other native tree plantations, and a 165-acre sanctuary of repairing steep country and other plantings.

**If you are interested as individuals or food cooperatives in leasing with a view to purchase, outright purchase, share farming with present breeding stock, or forming a cooperative – please contact Mary Done [wymahorganic@gmail.com](mailto:wymahorganic@gmail.com) for further details.**

Further Information visit [tableolive.com.au](http://tableolive.com.au)





# crisis times the mother of invention



We tend to think of those who were directly burnt out as the real victims of this Summer's bushfires. For many growers, however, the secondary impacts of smoke pollution have wreaked just as much havoc.

Such was the case for NCO certified operators and owners of Lark Hill Biodynamic Wines, who made the painful decision this year not to harvest fruit from their vineyards located in the Canberra district and Southern Tablelands of NSW.

The Summer bushfires took a big toll on the Canberra region. We can all remember the horrifying daily indices identifying Canberra as the city with the worst air quality in the World, with readings peaking at 7,700 (readings of 200 are considered hazardous).

"Lark Hill has gone through such a difficult time," says second-generation winemaker, Chris Carpenter.

"Weeks of bushfire smoke pollution left all of our grapes too tainted to process," he says.

"Following that deep blow, we were then hit with the fallout of COVID-19, which meant that we immediately lost 90% of our market; which is predominantly through cellar door, restaurant and on-premise wholesale," he says.

"Meanwhile our costs continue, including certification fees, and vineyard care and maintenance, following on horrific drought years."

Showing the innovation that lead to his nomination as an industry Young Gun winemaker, Chris was determined to fight back. How could he develop an offering to combat COVID-19 restrictions, that also took advantage of remaining stocks from previous vintages?

*The solution?* An innovative 'Cellar Door

Experience' enabling customers to enjoy the [almost] real thing from the comfort of home.

The first Cellar Door packs included 6x50ml tasting samples of Lark Hill wines; with a choice of whites, reds or a seasonal mix, delivered in custom up-cycled wine boxes, personally packaged by Chris and his assistant winemaker, Justine. Each pack comes complete with tasting notes, cellaring recommendations and a discount code for future purchases.

"The offer went viral and we ran our glass supplier out of 50ml vials in a week!" says Chris.

Overwhelmed by the response, and based on customer feedback for the sample vials, Lark Hill will now be experimenting with other bottle size options – 120mL, 375mL and 500mL.

Although he wouldn't wish this situation on anyone, Chris says, "the unique situation of drought, smoke taint and now COVID-19 has given us so much time to think critically about parts of our business that are otherwise just 'normal'."

"The 'tasting pack' experience has made us think about bottle size; 750ml is traditional in Australia, but for one wine drinker, unable to share a bottle because of isolation, this is too much," he says.

"It will be another 12 months before we have more wine to bottle and I'm hoping we can use this breathing space to look at all aspects of our business."

**Further Information**  
[larkhill.wine](http://larkhill.wine)



# Tired of sanitizing..?

Here's one place to get your hands dirty

## start your own home garden



Use time productively.



Avoid shopping.



Save money.



Remain healthy.

**WE KNOW YOUR FINGERS ARE ITCHING. YES, IT'S THE NEW COVID-19 VEGGIE GARDEN, OR A RESUSCITATION OF ENDEAVORS PAST. NOW IS THE TIME, PEOPLE.**

Tim Marshall has been growing the bulk of his own food for the last 40 years. Here are his tips on the why, where and how of growing. Successfully, this time.

### Defining your overall strategy

There is no single strategy for what to grow, but I can offer some advice on how to decide what may be best for you.

Things to consider include the likely return per unit of space and labour, your dietary preference, which products store best and what tastes better straight out of the garden.

You'll also need to think about your capability for physical labour, such as hoeing, and need for pest control, so you can select things that are likely to grow well where you are.

Lastly, you should also simply consider what you are good at, which you will learn over time and with practice.

In my community garden, I'm known as the carrot grower because I'm the only one that can grow them!



## start with the 'erbs...

I establish herbs first in a new garden because they are always on hand in the small quantities I need. Plant the perennials first, such as chives, oregano (marjoram), thyme, French sorrel and native violet. Next, establish the annuals such as basil, coriander and parsley, according to the season.

### Leaf vegetables

Greens are quick growing, use space well and provide high nutrition. Close spacing and cut-and-come-again varieties may be the very best choice for a home garden. With all cut and come again vegetables, always pick the outside leaves, leaving the centre to continue producing. Include unusual salad varieties such as mizuna, mitsuba, buckshorn, sorrel and even common weeds such as dandelion.

### Root vegetables

The obvious ones are potatoes and carrots but some of my favourites are baby turnip, swede, yacon and radish. More unusual ones include jicama, salsify, and mangelwurzel. Radish is a great space saving salad vegetable because it grows quickly in between longer-growing vegetables before they fill the space. Too much salad radish? It is good in stir fry.

Small, colourful varieties of beetroot such as Bulls blood and Chiogga are good, but the long varieties such as Cylindrica produce the highest return for space. If you are a novice carrot grower, start with the easier short varieties such as Chantenay.

I would not suggest potatoes unless you have a lot of room because they are very cheap to buy. The exception is for unusual varieties such as the glorious 'pink fir apple' (the best for potato salad), kipfler and purple congo.

### Brassicas

Brassicas have a high pest control requirement, but home grown have superior taste and nutrition. For maximum yield, plant varieties of broccoli that produce side shoots after harvesting the main head. Small headed cabbage are easy to grow, as are collards, a non-hearting cabbage that can be cut many times and produces a huge harvest per square metre. Brussel sprouts take a very long time to grow, but taste better straight from the garden. I grow unusual red-coloured and small-fruited varieties. Cauliflower is trickier, so novice gardeners may want to leave it out until they gain experience, but Pak Choy grows quickly and can be planted between the other long-growing varieties. It will be harvested before they need the space.

### Legumes

Legumes can be high labour, but also offer high return. Peas are tasty when fresh and the shoot tips can be used in salads. Climbing and bush beans are productive and there are hundreds of varieties. The 'lazy housewife' is a very high yielding climber, but not tender (use it in soup or stew), whereas bush beans are excellent even when raw. Borlotti

beans are climbers that can be eaten as green beans when young, and shelled for long-keeping beans when mature. Snow peas deserve a place in the salad garden and yield well. Snake bean are great rambling climbers to fill a larger space. Broad beans are winter growing.

### Onions

Spring onions may offer the highest return per square metre of anything I grow, and they keep quite well in the garden (used from very young to mature). Brown onions also yield very well and keep for at least three months. Leeks are longer growing, but store-bought ones are disappointing after garden grown.

### Perennial Vegetables

I grow artichoke in the front yard for its wonderful architectural shape, as well as for harvest. It is another vegetable that is best eaten fresh and lasts about five years. Plant the side shoots to keep the patch growing. Jerusalem artichoke makes a great seasonal screen or shelter for other veggies. Pick the young leaves of horseradish for salad. Younger roots make tastier eating too, as the old ones get stronger and bitter, but the patch will last for decades. Rhubarb is another essential in my garden, as is Welsh bunching onion. In warmer climates, try perpetual spinach (Malabar) and remember that there are perennial versions of many vegetables, such as Leeks.

## improving yield...

Fertile organic soil will help with yield and flavour, but there are also some growing concepts to improve return.

**Close planting** within the row works for some species/varieties, but not others. Chantenay carrots (early shorthorn, king Chantenay etc.) are a short, broad shouldered carrot that can be close planted, as can Cylindrica beetroot. These varieties will not distort because they push up above the ground, rather than twisting, and you can use three times the recommended number of plants per square metre. Spring

onions, peas, snow peas and runner beans all tolerate closer planting. Loose leaf (non-heading) lettuce tolerate close planting in the 'cut and come again' style.

Round beetroot varieties and deep-rooted carrots are less tolerant of close planting and may distort. Lettuce that form heads (iceberg) do not tolerate close planting well at all.

Close planting within the row, plus closer rows, works for Chantenay carrots, onions etc. Cauliflower (especially) and broccoli will produce

smaller curds, ripen earlier and more uniformly when close planted.

**Block planting** rather than wide spaced rows is suitable for onions, which are best planted at the recommended number of plants per square metre, but plant the onions closer together in blocks of 4, allowing more space for hoeing in between.

Block planting is not suitable for sweet corn, celery and most tall plants such as peas or tomatoes.

**Interplanting** into the same row is

suited for quick growing vegetables (spring onion, lettuce, radish), which can be planted between vegetables that grow slower and occupy space for longer. This achieves complete ground cover earlier to use sunlight and irrigation more effectively, compete with weeds, and increase total yield per square metre.

Quick growing vegetables are progressively removed to make space for growth and expansion of slower growing vegetables. Radish are the first to be harvested, followed by lettuce, and spring onion can be removed at any time. The last vegetables to be removed are spaced such that the mature plants are just touching.

Eventually, competition overtakes cumulative yield improvement and returns diminish, but experience will reveal what works.

### Transplant Seedlings vs Seed

Transplant shock slows growth and can lead to bolting in some crops, such as carrots. It can be minimised by careful handling to avoid root damage, and planting in ideal soil moisture (transplant during light rain). Transplants occupy space for shorter periods (an extra lettuce crop per year). Some plants are slow to germinate (parsley) or do not germinate uniformly (celery). Be aware that seedling suppliers sometimes use inappropriate varieties for the season. Failures can be replaced easier with transplants.

Seed is cheaper and offers a wider range of varieties, especially heirloom varieties, plus there is often helpful information on seed packets.

If getting a late start, transplants will establish earlier, whereas seed may take longer and be at a delicate stage in severe conditions.

Also, consider greenhouse growing and cloches (mini greenhouses) to extend the season. There are commercial products, such as Lo-tunnel (easy clips to raise/lower the cover) that can be used to protect against frost. Micro-mesh 'floating-row' covers are long lasting and provide total exclusion of pests, such as cabbage moth.

40 years of experience has helped me to identify what works best in my garden.

Remember though, every garden is different – so it's important to trust your instincts, learn as you go and enjoy!



### "HERE'S A LITTLE FERMENT THAT CELEBRATES THE SEASON OF KOHLRABI!"

I am a huge fan of Kohlrabi, it's an incredible vegetable that can be eaten in its entirety and given that it's a member of the cabbage family... why not make kraut from it?

A super easy, super-fast ferment!"

## PLUCKED FROM THE GARDEN, AND ON TO THE PLATE

### SEASONAL. DELICIOUS. NUTRITIOUS. ORGANIC.

#### INGREDIENTS

4 medium to large peeled Kohlrabi bulbs (save the stems and leaves for another dish).

Sea salt.

Mustard seeds.

Fennel seeds.

1 Tbsp. apple cider vinegar.

#### EQUIPMENT

Clean and sterile fermenting vessels with a tight lid – any of these will work, screw-top jar, swing-top jar, jar with an airlock, crock – whatever you have on hand.

Clean chopping board, knife, peeler and grater.

Clean bowl for mixing.

Scales.

#### METHOD

First step in fermenting is to calculate our salt ratio; it's quick, safe and ensures a great outcome.

We are looking for a standard 2% salt; this lower percentage will enable a successful short ferment.

#### Here is an example calculation.

Weight of peeled Kohlrabi – **950gms**

Calculation is **950g x 2% = 19g salt.**

#### Coarsely grate the Kohlrabi

NB: because we are grating the Kohlrabi, it will ferment quite quickly, however, if you would like a longer ferment to get more lactic acid bacteria, cut up your Kohlrabi into equal-sized batons. This will require a longer time at room temperature and produce a more acidic/sour end result, so you may need to add some spring water to the jar to ensure the kohlrabi is covered in brine. Finally, if you decide on batons, increase the salt ratio to 2.5% to allow for the extra weight of the water.



masterchef  
contestant  
goddess  
of fermenting

# mandy hall



I suggest using about half the salt weight in seeds, in this case - we are using 19g of salt, therefore we should add roughly 9-10g of seeds in total.

## Put it all together

In a large bowl mix the kohlrabi, salt and seeds. This is a little different from traditional cabbage kraut, in that we don't want to pound it and break down the cells of the cabbage to release juices and make the brine. We have already grated the Kohlrabi, so it will be quite juicy. Once all is mixed together, leave to sit for 5 minutes, then stir through the apple cider vinegar.

## It's time to jar

Place the mixture into the jar and press down firmly to make sure the kohlrabi is covered with brine. Leave approximately 3-5 cms headroom from the top of the jar. Use weights, half an apple or folded leaves with additional weight to keep the kohlrabi submerged. Clean around the rim of the jar with a clean paper towel or a very clean cloth and seal the jar.

Place the jar on a plate or in a dish to catch any possible overflow, ferment at room temperature for 3 -5 days maximum (7-14 days for batons).

Place the jar into the fridge and consume with joy!

This will store well in the fridge for up to 2 months.

When Mandy Hall left a career in media and management fifteen years ago, she had one thing firmly on her mind.

"Food!" .... she laughs.

"I decided from that day on, my life was always going to revolve around food in some way."

"When my son became sick, I became obsessed with researching and sourcing healthy and sustainable produce. I would wake up with recipe books lying across my face. I tried new cuisines, ate dishes I still can't pronounce and signed up for any cooking course I could find. As my son's health improved, I realised my own life had changed too".

Today, Mandy continues her journey uncovering forgotten practices and celebrating the power of food, from a medicinal and healing point of view, but also from a place of connection, joy, and happiness.

Mandy's achievements over the past 15 years read like a Foodie's Bucket List and are simply too numerous to list here. Despite her busy schedule, Mandy found some time to contribute to *Organic Insights*.

## Further Information

You can see more of Mandy's recipes and what she's up to here.

[www.lovefermentsandfood.com.au](http://www.lovefermentsandfood.com.au)

[www.instagram.com/mandyhallfood](https://www.instagram.com/mandyhallfood)

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## Drive your phosphate further..

By integrating Madura Guano Gold products into your farming program you can drive your Phosphate further.

So for once and for all, get the full dollar value from your Phosphorus by making the Madura Guano Gold-Split P range of fertiliser products an intricate part of your PMS-FUE.

## How to get Phosphorus for the whole season.

Phosphorus analysis is extracted in a test tube; however, the reality is that in harsh Australian soils this can be anything but but a test tube environment. The Phosphorus in our Madura Guano Gold fertiliser range is mainly non water soluble giving a "Split P" drip feed effect for crop growth throughout the whole season. The available Phosphorus [P] in Madura Guano Gold fertilisers combines with natural Calcium, Gypsum, Silica and trace elements, giving your crop the perfect start from germination to maturity.

Any number of soil constraints can result in P tie-up, leaving producers puzzled when they notice seemingly P deficient crops in paddocks ostensibly with ample P reserves.

Owner of Guano Australia John Jashar said his range of Guano Gold products were providing farmers with an alternate source of phosphorus with much better plant uptake rates.

Mr Jashar exclusively owns and imports the Guano Gold range of products derived from seagull bird droppings from Madura Indonesia.

He said his clients told him they reported a constant and steady release of phosphorus to the plant throughout the growing season, rather than the quick early season hit seen with synthetic products.

"The P in our Guano Gold Fertiliser range is mainly non water soluble giving a "Split P" drip feed effect for crop growth throughout the whole season," he said.

Along with the 12 per cent of phosphorus, and high amounts of calcium, sulphur and silica and around 3pc of potash in the products along with trace elements like

zinc. Mr Jashar said the package made for good plant health throughout the season.

"People say to me, they aren't quite sure what it is, but what they all know is the crops that receive Guano Gold instead of your conventional MAP or DAP phosphorus products do that bit better."

The PBI is a critical tool in determining plant available P levels in soils. "All soils are different in pH, iron, manganese, calcium and aluminium levels, all these factors will affect available P," he said.

Mr Jashar has been involved in the fertiliser industry for decades and has worked hard to build up the company Guano Australia as a premier source of the Guano Gold fertiliser range of products.

"I want to give people a brand they can trust."

He said the Guano Gold range are all certified organic by Australian Organic and NOP compliant by US Department of Agriculture (USDA), making it a natural fit into the organic sector, but equally said there was good demand from other crop production sectors. "We do work with everyone from dairy, sugar cane, tree crop producers to broadacre crops through horticulture and viticulture," he said. "The common thing across all these sectors is that they want a P product their crops can access throughout the growing season and not be tied up in the soil."

The various products have been designed for the different methods preferred in different enterprises.

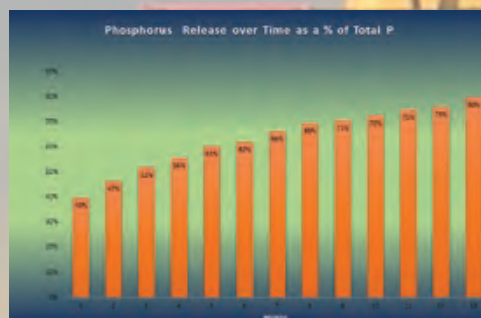
## How to spread Guano Gold..

Madura Guano Sulphur Gold is a prilled product; tested and suitable for use in air seeders, combines and planters whilst Madura Guano Gold-Kwik Start is a granular for ground spreading throwing the same as single super through a belt spreader.

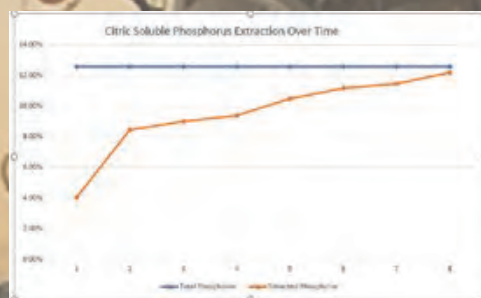
## Need Help?

Guano Australia now offers independent lab testing for Phosphorus Buffering Index [PBI] as a part of its soil testing services.

## MADURA GUANO GOLD-KWIK START®



## MADURA GUANO SULPHUR GOLD®



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**GUANO  
SULPHUR  
GOLD®**

**CERTIFIED ORGANIC**



**P: 12.6% S: 11.0% Ca: 26.2% Si: 24.8%**  
**Phosphorus - Sulphur - Calcium - Silica**

### **FEATURES & BENEFITS**

- ▶ 90% Citrate Soluble Phosphorus [P].
- ▶ Fast & slow release of Phosphorus.
- ▶ 12.6% Total P.
- ▶ 11.0% Elemental Sulphur.
- ▶ 26.2% Calcium.
- ▶ 24.8% Silica.
- ▶ 0.4% Zinc.
- ▶ 8.6% Organic Carbon.
- ▶ Full range of trace elements.
- ▶ High CEC; 129Me/100g.
- ▶ Bulk Density, 1.5 MT per m<sup>3</sup>.
- ▶ Granulated (2-5mm) easy to handle & spread through all planters airseeders, combines & stool splitters.
- ▶ 30m Spread Rate. Airseeder & spreader tested & proven.
- ▶ Minimal cadmium & mercury content.
- ▶ Suitable for blending with all other types of fertilisers (except urea).
- ▶ Performs very well agronomically.
- ▶ Environmentally friendly.
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- ▶ No odour guano organic fertiliser.

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- ▶ Viticulture
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- ▶ Olives
- ▶ Ornamental
- ▶ Pulse Crops
- ▶ Rice
- ▶ Sugar
- ▶ Turf

### **100% NATURAL ORGANIC PHOSPHORUS FERTILISER & SOIL CONDITIONER**

Environmentally-friendly and certified for use in both organic and biodynamic farming, Madura Guano Sulphur Gold® granulated airseeder friendly fertiliser is one of the best farming fertilisers for sustainable and productive cropping. It contains 4 elements that are essential for your cereal, cotton, pulse, pasture programmes and more.

**12.6% Phosphorus** is provided in 90% citric and 10% non-citric form providing a drip feed supply of Phosphorus throughout the growing season. The Phosphorus in the granule is in the form of a Di- Calcium Phosphate and when this reacts with weak solutions of acid in the soil, soluble phosphate and calcium are released and these nutrients become available for plant uptake. To aid this process, at planting the naturally occurring silica in the granule reacts with water to form mono silica acid which in turn assists with the breakdown of the Di-Calcium Phosphate. The non-citric soluble Phosphorus becomes available at higher concentrations of acidity in the root zone and, this acidity produced in part by root exudates in the maturing plant.

**11% Elemental Sulphur** in the elemental form and mineralises to provide a slow release of Sulphur for the entire growing season without leaching or being lost to the atmosphere as a gas. Sulphur allows the plant to efficiently uptake nitrogen and in legumes allows nitrogen fixation. Apart from supplying nutrients directly to the plant elemental Sulphur, by conversion in the soil, to Sulphuric Acid reacts with the naturally occurring Calcium Carbonate to produce plant available Calcium. This Calcium can then be used by the plant and or to assist in displacing Sodium, for this Sodium can then be leached from the soil.

**24.8% Silica** in the form of a mono Silica Acid is taken up by the plant with water uptake and is deposited in the cell walls. This gives the plant a considerable increase in stem strength while providing a mechanical barrier to both fungal infection and water loss. Like Sulphur, Silica has a function in the soil chemistry as well as the plant. Free Silica in the soil will displace Phosphorus that is bound to Iron liberating plant available Phosphorus while producing an Iron Silicate.

**26.2% Calcium** in the form of Di-Calcium Phosphate. The organic fertiliser's Calcium benefits are taken into the plant with water. Calcium is necessary for cell development. Research shows Calcium uptake begins 5 days after seed hydration therefore available Calcium at the seed is essential. Without good calcium levels, plants cannot use Nitrogen efficiently.



**John Jashar - 07 5445 5300 / 0412 474 049**

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# fit-for-purpose 'fatties'

## REVOLUTIONISING ORGANIC ORCHARD, VINEYARD AND SMALL FARM MANAGEMENT

**Livestock grazing in vineyards and orchards for weed management provides beneficial fertility cycling and is compatible with use of mulch.**

Striking the right balance of crop protection, coverage, natural preferential selection, and even grazing has been the challenge however, in choice of livestock for Graham and Annemarie Brookman, NCO Certified Producer, of The Food Forest, near Gawler.

The couple have used geese for many years and have found them to be excellent grazers, heavily selective on grasses and capable of controlling couch and kikuyu in permanent plantings.

"But geese can tip the balance of the inter-row pasture or cover crop strongly toward broad-leaved weeds and I wondered whether sheep could help us to achieve more even grazing," says Graham.

Standard sized sheep and goats, however, were found to do too much damage to fruit trees, so the hunt was on for a very short statured sheep with no need for shearing.

The Harlequin Mini Meat Sheep, an easy-care breed, was thriving on a certified-organic Riverland property in South Australia and some of their smallest stock was purchased; however, the Brookmans wanted to broaden the genetic base to avoid in-breeding and to create a meatier breed.

There was one credentialed breeder of the very short Babydoll Southdowns in South Australia and so ram 'Number 26' was recruited. Unfortunately he was too massive to safely mate with the little Harlequins. So, the smallest available Wiltipolls from Wonoka Stud were added to the program, bringing genes for strength and self-shedding of wool in Summer.

"The cross between the Wiltis and Number 26 created our 'Wiltidolls' and we have found them to be magnificent, short-statured meat sheep with a degree of self-shedding," says Graham.

"Crossing them further with the Harlequin has hopefully given Australia the ultimate easy-care mini-sheep for horticulture."

Graham and Annemarie are so chuffed with their 'Food Forest Fatties,' that they are happy to part with some certified organic rams, so that others can enjoy their own Fatty workforce.

### Further Information

[www.foodforest.com.au](http://www.foodforest.com.au)



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- Easy-care
- Excellent meat producers
- Certified organic and top genetics

Start your sheep breeding program with a unique blend of genes for short stature

### Harlequin Mini Meat sheep

- very small • have hair rather than wool
- naturally short-tailed • assorted colours

### Wiltidolls

- small • incredibly meaty • fabulous temperament
- partially self-shedding short wool

Contact Graham Brookman

E: [foodforest@bigpond.com](mailto:foodforest@bigpond.com) Ph: 0407 771 985



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# TIRED OF HAND WEEDING?

## BIOWEED® FOR USE AROUND ORGANIC FARMS AND GARDENS

Bioweed is the perfect tool for the eradication and control of weeds within organic farm setting. BioWeed is not a systemic herbicide but rather works by stripping the outer coating of contacted plant and seed material, causing cell collapse and desiccation. The plant uses its natural water cycle to pull water and energy out of the root system and dehydrate the plants system.

### Withholding Period

Bioweed has no withholding period so can be sprayed all season round without any negative effects on the saleability and holding period for produce. This is can be beneficial if weed control is needed to be done close to harvest time.

### Seed Control

Bioweed can also be utilised within the freshly cultivated rows. With the benefit of Bioweeds unique dual weed and seed killing action you will be able to stop weeds before they germinate in the soil. Bioweed can also be used to control an outbreak of weeds that have gone to seed. This means over time there will be a reduction in the seed bank on your property and a reduction in weeds outbreaks after rain events.

As Bioweed is a non-residual weed killer, an area can be planted out within 72hrs of controlling weeds within a cultivated area. Saving you precious time and lengthening the windows needed for planting.

Below a list can be found of the common horticulture weeds Bioweed will control:

- Lambsquater
- Pigweed
- Plantain
- Paspalum
- Chickweed
- Dandelion
- Purslane
- Thistles



Dandelion



Thistles

Like more information on how Bioweed can work for you?

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## ESSENTIAL VIEWING WHILE IN LOCKDOWN

### CATCH UP ON ALL 6 EPISODES OF THE NASAA SPONSORED 'ROSE STREET PANTRY' TV SERIES

Originally aired in early 2020 on Channel 31 (44 free-to-air) in Melbourne.

The Rose Street Pantry is a small and popular provedore in Fitzroy that focuses on bringing the best of local, small batch, handcrafted organic produce and wholefoods to Melbourne foodies.

Meredith Stevens, owner and operator of Rose Street Pantry, is a passionate advocate for wholesome, fresh, real food. Teaming with local independent documentary makers, Thomas Carr and Russell Bridger, the series looks at the people behind the labels, their philosophies and production methods.

"Our series is about sharing the stories of local producers, learning their practices, experiencing their products and encouraging more people to be inquisitive about the origins of their food," says Thomas Carr.

Check out episode 3 on NCO certified [Hazeldean Forest Farm](#), producer of organic apples, apple cider, sparkling wine and apple cider vinegar in West Gippsland. Also, watch out for certified grain growers and bakers [Woodstock Flour](#) from Berrigan NSW in the season finale.

Essential viewing for those with a real interest in knowing how their food is produced.

All episodes are available to view at [www.rosestreetpantrytv.com](http://www.rosestreetpantrytv.com)

Visit [@rosestreetpantry](https://www.instagram.com/rosestreetpantry) for more info.

# Post covid-19 lockdown

## navigating a world on high alert



Glenn Schaub  
/ NASAA Chair

**As consumers, we expect the food we buy to be safe and not make us ill when we eat it.**

The organic industry has a reputation built on food that is produced naturally, without the use of prohibited inputs.

Consumers purchase organic food because they [believe it is healthier, and](#)

[better for them and the environment.](#)

But these simple expectations, while very reasonable, belie the numerous and complex issues associated with producing and delivering safe food to the consumer.

A Danish study on food safety in organic farming ([Hansen et al, 2002](#)), scripted a broader organic definition of food safety relating to the safety/security of the production system: supply, distribution, transparency, proximity, information and consumer influence, and the lack of negative production impacts on humans and other living organisms, the environment, and climate etc. The study noted that food safety can also mean food that is rich in health-promoting substances.

Emerging research can help to reinforce the perception that organic food is better for you by virtue of being grown more naturally. For example, data from a recent French study of 64,000 people, indicates that the avoidance of artificial pesticides and fertilisers [reduces the risk of numerous cancers.](#)

This is of significance, because in a post COVID-19 lockdown world, food safety concerns are likely to be at the forefront.

The World Health Organisation ([WHO reports that it is likely that COVID-19 is an animal disease that can affect humans \(a zoonotic disease\).](#) This provides substance behind media reports that the disease could have originated from a 'wet market' in Wuhan, China where live, wild animals and other livestock are sold for human consumption.

The zoonotic assumption is not unfounded. The close relationship between animals and humans is understood to [be a likely precondition](#) for such diseases as Avian influenza, which involves direct infection from birds to humans. The occurrence of diseases that normally exist in animals, but that can infect humans is significant and includes anthrax, monkey pox, rabies, HIV and SARS, which also comprises COVID-19 (SARS-CoV).

Resistance to antibiotics and other medications is another complicating issue.

During 2011, the US [Food and Drug Administration](#) reported that of all antibiotics sold in the United States, approximately 80% are sold for use in animal agriculture; about 70% of these are from classes important to human medicine. Such medicines are commonly used as defacto growth promotants, and to manage housing density. This comes despite the WHO calling antimicrobial resistance an [increasingly serious threat to global public health.](#)

Fear of more pandemics as a result of disease transfer between species is, therefore, well-founded.

On the positive side, there is [good argument and evidence](#) to suggest that biodiverse organic systems need to become central to preventative public health solutions, but the challenge for organic and organic wild harvest is to be widely seen as part of the solution and not part of the problem.

Lower stock density, free range, no antibiotics (except when welfare circumstances are a priority treated animals are removed from the organic production system), biodiversity, alliance with humane livestock production systems, maintaining a healthy continuum from the soil, to the plants, and to our gut microbiome, are practices in the organic and biodynamic management toolkit, that can be used by all food producers.

Importantly, the handling, slaughtering and processing of organic meat and plant products is subject to the same controls and regulations as





conventionally produced meat.

Never the less, the lack of community knowledge around organic disease management practices in organic and biodynamic production systems, underlies a risk in the new COVID-19 pandemic world, because it leaves the sector open to [speculation and criticism](#).

Like the challenges of producing safe conventional food, organic food is not without its own challenges.

While [product recalls](#) of conventional and organic food occur on a regular basis, in a post COVID-19 lockdown world, we can expect a higher degree of political, media and community sensitivity, especially when recalls involve meat or raw products, or food that is produced unconventionally.

Developing a shared understanding of organic and biodynamic practices used to maintain health across the system, is central to being seen as part of the solution.

As an industry, already subject to opportunistic criticism by some in the conventional agriculture and food producing sector, organic producers must continue to be vigilant in meeting all health and food safety requirements, monitoring and risk management practices, if we are to navigate successfully, a world highly sensitive to the risks associated with poor food quality and safety controls.

FOLLOWING THE AUTHORING OF THIS ARTICLE, Senator Hanson Young moved the following to be noted by the Federal Senate - Thursday May 14;

*COVID-19: Wildlife*

*(a) the Senate notes that:*

- (i) the science is well established on the link between wildlife consumption and the transfer of zoonotic diseases, such as Coronavirus, to humans,*
- (ii) closing wildlife markets will not be enough to prevent future pandemics like COVID-19;*

*it must be accompanied by an end to the trade of wildlife for consumption and other purposes,*

*(iii) ending the trade of wildlife would not only help keep the global community safe from future pandemics but also help protect the world's precious wildlife for future generations,*

*(iv) wildlife trade impacts biodiversity, can cause diseases to be transferred between other wildlife species putting them at risk, drives poaching and trafficking and ultimately fuels the extinction crisis around the world, and*

*(v) the G20 meets in November and will focus on the global response to the pandemic; and*

*(b) calls on the Federal Government to advocate for a global ban on the trade of wildlife.*

Responding to Senator Hanson-Young's motion, Senator Ruston (Minister for Families and Social Services and Manager of Government Business in the Senate) confirmed the following :

*The government has called on the international community to acknowledge the risk associated with wildlife wet markets and to take action to protect human health and agricultural industries.*

*Australia's Chief Veterinary Officer, as President of the World Organisation for Animal Health, is seeking to deliver global reforms to wildlife wet markets to minimise the associated risks, or to phase them out where practical. This approach will reduce the risk of future pandemics and their subsequent far-reaching impacts while sustaining desirable global food security outcomes.*

*Australia has some of the strictest wildlife trade rules in the world and is a signatory to the Convention on International Trade in Endangered Species of Wild Fauna and Flora, resulting in over 1,000 species being prohibited from trade for commercial purposes.*

# Restoring nutrition and immunity

BY GLENN MORRIS



## RECONNECTING HEALTHY COMMUNITIES TO HEALTHY SOILS

Human health is in the spotlight as the World grapples with COVID-19, and amidst growing evidence that climate change and industrial farming are, quite literally, making us sick.

NSW Cattle Farmer and former Landcare Award recipient, Glenn Morris, says we should observe both history and modern science in focusing on restoring the health of soils as the foundation for human health.

In the middle of the 20th century, leading experts from around the World tried to alert decision makers to the critical links between soil health, nutrition and human health. Of central concern was the fact that they were observing a strong correlation between declining soil health and increasing rates of disease in the community.

Fast forward almost 80 years later and observe the health situation globally where, even before the COVID 19 outbreak, nations were being crippled by illness – particularly a rise in non-communicable diseases (NCDs), and high medical costs.

Now, the whole World has been brought to a standstill.

While no one knows for certain what triggered the original case of COVID-19 in Wuhan, we do know that the stresses on human immunity were extreme just prior to the outbreak.

As reported in the [Washington Post](#) in late 2019, China was in the grip of an extreme heat wave, where as many as 100 million people were identified at risk, as temperatures soared higher than 37.7 degrees Celsius. A previous study conducted in Wuhan in 2013 found that when temperatures exceeded 35 degrees Celsius, the excess mortality rate was more than 50 percent.

At the same time, China was dealing with the African Swine Fever Pandemic in their





“ Everything we do during and after this crisis must be with a strong focus on building more equal, inclusive and sustainable economies and societies that are more resilient in the face of pandemic, climate change and the many other global challenges we face.

Antonio Guterres  
US Secretary-General

pig population. [Reports](#) estimate that up to 70 percent of the Chinese pig population was being slaughtered, equating to as much as 20 percent of the world's global [meat] protein.”

Since the outbreak of the pandemic, there has been mounting evidence that a lot of people contracting severe cases of COVID-19 already had compromised immune systems.

New research emerging, for example, is pointing to evidence that people who are affected by obesity are more likely to be severely affected by the virus.

According to a recent [report from the ABC](#), “research from the UK's Intensive Care and National Audit and Research Centre showed almost three-quarters of patients admitted to intensive care were obese or overweight.....and a study from New York University found obese patients who were under 60 were almost twice as likely to need treatment in the ICU.”

Correspondingly, data coming out of China has found that, “obese and overweight patients were five times more prevalent in the number of deaths from COVID-19.”

“Researchers also know COVID-19 increases the amount of inflammation in the body. People with obesity have a higher level of inflammation in their bodies, which can impede the body's immune response and make it more difficult to fight corona virus.”

Similar studies in France<sup>1</sup> have found that, “while 17 percent of French people are obese, they represent 83 percent of the people contracting COVID 19”. In one hospital with about 50 patients in the intensive care unit, 95 percent of the patients were either overweight or obese.”

COVID-19 aside, root cause analysis of underlying health issues and the rise in NCDs in human and animal populations strongly correlate to diet and nutritional deficiencies, in turn pointing to deficiencies in plant growing conditions and, fundamentally, the health of our soils.

<sup>1</sup> Légasse, P. 2020, Junkfood: breeding ground of Covid-19, Newspaper Marianne. France

# Time to revisit a Royal Commission into food nutrition?

But if there is only a shadow of suspicion that for us and our population in this country, and indeed for all people in the modern world, health depends on the right treatment of the soil, then I would suggest to your Lordships that there is no time for delay.

[The Earl of Portsmouth](#), debating the merits of a Royal Commission into Food Nutrition.

In 1943, a special sitting was held in the House of Lords in London with the intention of taking steps to restore the quality of nutrition and health of people across the entire world (Hansard 26 October 1943).

While still having to deal with the horrors of World War II, a distinguished group of Lords (including- Lords Teviot, Geddes, Bledisloe and Glenatarr; and The Earls of Portsmouth and Warwick), one after the other, decided that not nearly enough effort was being made to safeguard the complete health of their citizens.

The issue at hand was to raise a motion for a Royal Commission to investigate the nutritive value of foods in relation to agricultural methods in view of their importance to the health of humans, animals and plants.

Whilst debating the issue, the Lords variously brought up concerns around the industrialisation of food production and application of 'artificial' in crop production, and the impacts on soil health and pest resistance, and ultimately, human nutrition and immunity.

Despite the significant life protecting nature of this motion it appears that the Parliamentary Secretary of the Ministry of Agriculture and Fisheries, the Duke of Norfolk, totally missed the point and failed to follow up with effective action.

In the end, this important motion to investigate the health of people across the World was defeated.

## Understanding the Importance of True Nutrition

Many of the problems that we are facing as a society in 2020 have come about because people and nations have got caught up within the wheels of modern society and industry and failed to observe and respect nature.

The recent horrors surrounding a record hot summer, catastrophic fires, water shortages and the COVID-19 pandemic demonstrate just how serious the situation is becoming.

Scientific findings unequivocally indicate that the nutritional value of food is being compromised with the high input industrialised food system we have adopted.

Additionally, we now understand that the regeneration of the water cycle, a stable climate, farm vitality and productivity are all highly connected to the organic health of the soil.

[Ehrenfried Pfeiffer](#) was once considered one of the world's leading soil scientists. During his illustrious career as a leading soil researcher, biochemist and soil microbiologist, he discovered the link between an imbalance in plant nutrient and the occurrence of a breakdown in the nucleus protein (DNA), promoting virus diseases.

*Pfeiffer further identified the need to "go back to the grass roots of life, and.... restore the superb function of balance in our nutrition, in the building up of a plant and a soil... go back to nature and work with nature with regard to balance, and as soon as we do that, a lot of diseases will not show up as contagions or disease."*<sup>1</sup>



Pfeiffer's warning, which was largely ignored at the time, both by politicians and Universities, has in recent years been validated by a scientific paper that identifies one of the main reasons for all cancers is damage to the mitochondria due to nutritional imbalances.

Emerging evidence suggests that cancer is primarily a metabolic disease, and that "protecting mitochondria from damage [through better nutrition] becomes a logical and simple approach for preventing cancer."

According to biomedical researchers [Seyfried & Shelton \(2010\)](#), "In principle, there are few chronic diseases more easily preventable than cancer".

1 Pfeiffer, E. 1956, 'Ehrenfried Pfeiffer Himself', audio tape, 'Balanced Nutrition'. Acres U.S.A. MASTERS OF ECO-AGRICULTURE SERIES





### Back to Grass Roots... A Soil Revolution

Coupled with a modern scientific understanding of just how important biology is for boosting soil health and human health, it's time to revolutionise the way we are providing nutrition.

With a modern understanding of the importance of healthy soils in providing essential amino acids, water, oxygen, minerals and a host of other vital secondary metabolites and antioxidants, it is time to restore the true health of soils for the microbes, plants, animals and people that depend on it for complete nutrition.

Sourcing nutrition, amino acids and other vital compounds from the soil humus colloid demonstrates a far more complete way of building complete nutrition in the plant than the method of plants obtaining all of their nutrition from inorganic nutrients in the free soil solution, as advocated by most soil scientists who have been primarily trained only on chemical farming methods.

Humus is a source of true health for animals and humans. Humus contains over five hundred thousand different organic compounds and it has five times the nutrient storage of clay. Such is the importance of the high nutrient storage of humus and its impact on the soil matrix that just three percent humus in the soil can be responsible for half of the nutrient storage in the soil.

In 1936, inventor, biochemist and microbiologist [Selman Waksman](#) stated that, "The amount of water and of nutrient salts adsorbed by the colloidal humus system is of great agricultural significance, since it is in this system that the major microbiological activities take place; it is in this system and not the free soil solution which is of great importance in the study of the availability of various nutrient elements for the growth of higher plants."<sup>2</sup>

Highly respected soil scientist, [William Albrecht](#) mentioned in a 1975 study<sup>3</sup> that [When] 'we learn chemistry by beginning with the inorganic aspects, including now about 100 elements...that beginning phase of chemical sciences proves highly lethal to any further interest of a high percentage of students. All too many of them fail to arrive at the organic phase of it. They do not learn of its many synthetic processes representing at this date about half a million different known compounds.'

## Links between humus and improved plant and human health;

- Plant roots and mycorrhiza fungi can absorb amino acids and transfer them directly into the plant in the form of true protein.
- On average [15 quantitative comparisons] organic crops contain about one-third higher antioxidant and /or phenolic content than comparable conventional crops.
- Thirty five percent of humus is made up of protein in the form of amino acids (Waksman 1936).
- Fats, proteins and sugars are required in their true forms by cells to ensure there is no risk of rogue cancer cells forming.
- Recent scientific studies report that nearly all cancers are formed by changes in the type and quality of nutrition in the cell nucleus and impacts to the mitochondria.
- In 1952, Pfeiffer identified that less than 1% of people had a normal amino acid metabolism and suggested this was causing people to eat three times as much to obtain an adequate level of nutrition.
- Plants which have access to large pools of organic nitrogen in the form of amino acids (bound in humus) demonstrate a truer and more complex nutritional status in their own growth over and above plants forced to feed on water soluble artificial fertilizers (Pfeiffer 1952).
- Plants that are forced to grow due to excessive amounts of inorganic nutrients in the soil solution actually produce high levels of carbohydrates and less protein (Pfeiffer 1952).

The reality of the situation is that without an immediate global effort to re-establish biologically rich soils, our climate, our water cycling, our biodiversity and our healthy systems will continue to collapse.

By regenerating healthy landscapes with fertile organic soils not only can we go a long way to restoring our own health, but we can also go a long way to restoring the health of the earth's climate and water cycles.

2 Waksman, S.A. 1936, Humus: Origin, Chemical Composition and Importance in Nature, 1st edn, Bailliere, Tindall and Cox, Covent Garden, London.

3 Albrecht, W.A. 1975, The Albrecht Papers Volume II: Soil Fertility and Animal Health, 1st edn, Acres U.S.A, Kansas City, Missouri, U.S.A.

## NEWS WRAP UP



### BDO & Queensland Department of Agriculture & Fisheries webinar series

#### IT'S BUSINESS AS USUAL.... UNTIL IT ISN'T

Whether you run a small farm or large processing facility, the advent of COVID-19 has brought sharply into focus the need for agri-enterprises to have a plan in place to ensure business continuity.

Consulting firm BDO, in partnership with the Queensland Department of Agriculture & Fisheries, have developed a webinar series designed to draw out considerations that play a part in developing a Business Continuity Plan (BCP).

While a BCP is not a new concept, the series provides specific and relevant information for the agricultural industry and includes observations of current activity in the sector, with a particular focus on managing supply chain disruption. The webinar series is delivered in 4 parts; from a foundational discussion of the issues to be addressed in a BCP, to the documenting, evaluating and refining of your plan, and response monitoring.

According to BDO, crisis planning and disaster recovery for a pandemic response necessitates a focus on:

**Sustainability** – focusing on the delivery of critical services. Ensuring critical operational and administrative processes are aligned to revenue generating activity. A focus on financial management – cash flow, cost reduction, access to government stimulus and low

interest loan repayments. Ensuring materials availability.

**People** – ensuring that you have the right people, in the right place, doing the right thing. Understanding your critical services, who delivers them and what the critical roles are. Scenario planning, backup, training and upskilling requirements. A focus on leadership– being honest with staff, keeping people informed, empowering staff to be part of the process of navigating through the crisis.

**Health & Safety** –minimising risk of the virus being introduced, reducing the impact of a positive COVID-19 case. Having a clear COVID-19 Health & Safety policy in place covering employees and customers, including in remote locations; travel policies, plans for workers who are sick. Having a biosecurity plan for the business. Assessing insurance coverage for work from home. Limiting face-to-face interaction.

**Technology** – utilising communication and collaboration tools to augment/replace human interaction. Use of multiple technologies to support remote working environment. Assessment of cyber security. Requirements for employee training. Access to protected information.

**Supply chain** – strategies for supply chain protection. Consideration of production, labour, shipping and delivery, cold store logistics and customers. Identify vulnerabilities and mitigating

actions. Understand supplier's ability to fulfil requirements and flexibility. Develop contingency plans for alternate supply services.

The webinar series touches on current supply chain challenges with definitions around 'essential service status', border closures, labour, including seasonal workers; restricted air freight and port services, limited refrigerated containers supply, the potential for inputs to be in short supply, and the need for collaboration across the supply chain.

The [then] 'live' Q and A gives context to the practical considerations that you yourself may be contemplating.

#### Further Information

Access the full webinar program at [www.bdo.com.au/en-au/dafwebinarseries](http://www.bdo.com.au/en-au/dafwebinarseries)



## AUSTRALIAN AGRICULTURAL OUTLOOK

### ABARES Report April 2020: Impacts of COVID-19 on Australian trade

Food as an essential commodity is underpinning the security of Australian agribusiness, and the medium-term prospects for the sector remain strong, according to a recent report from ABARES that looks at the sector impact of COVID-19.

However, future supply chain and logistics disruptions – affecting both imported inputs and exports, as well as access to labour, are expected to present the biggest risks. Downside risks also exist for softer pricing.

#### Report Key Points

- Economic impacts of COVID-19 are uncertain
- Domestic food security is not at risk
- Australian exports to continue, supported by Government stimulus measures
- Downside risks exist for prices
- Disruptions to imported inputs and supply chains present a risk
- Freight and logistics channels are becoming constrained
- Maintaining availability of seasonal labour will be important. Horticultural and intensive production enterprises are particularly concerned about access to migrant labour. The Government has taken steps to reduce these risks through recent changes to visa arrangements for seasonal workers
- Recent drought conditions continue to dominate the sector's performance
- Trade barriers are beginning to emerge that could change the price outlook.



### OUTRAGE AS GM CROPS RECEIVE 'GREENLIGHT' IN SA

We told you a week was a long time in politics.

We have been shocked by the recent decision of the South Australian Parliament to 'greenlight' the passing of a contentious new Bill to lift the State's GM Moratorium. The moratorium has been under relentless attack, with Minister Whetstone bypassing legislation by continually lifting it, and with the Parliament having already voted three times to keep it.

The new Bill to lift the moratorium, introduced in late April by SA Best, has passed in a deal with the SA Labour Party that places onus on local Councils, to now determine whether they wish to 'opt-out' their region from allowing GM crops. Local councils will have to apply to be a 'GM crop cultivation free area' within 6 months of the legislation passing.

The Advertiser reports that the Local Government Association was blindsided by this move, with President Sam Telfer telling the media that, "The State Government should consider covering councils' [community] consultation costs, as regions were already under "extra stresses" as a result of the coronavirus."

SA's GM crop moratorium is an important part of our clean, green reputation and provides certainty

for GM free shoppers and our key export markets.

NASAA Organic General Manager, Mark Gower said "We are obviously disappointed that the GM Crop Moratorium will be lifted. We believe that South Australia is throwing away a significant commercial advantage, and that the SA food industry's high reputation for GM-free foods will also be lost. If Kangaroo Island is allowed to remain GM-free so farmers and processors there can continue to reap substantial premiums for their GM-free foods and beverages, it doesn't make logical or commercial sense to prevent the main land from doing the same."

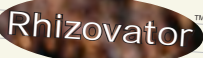
He went on to say, "The proposed patchwork of local GM and GM-free Zones within the state, subject to the Minister's veto, is logistical nonsense. It cannot be argued that the sustainable, organic and GM free food market is growing exponentially globally. These short sighted politicians are selling South Australia out to foreign owned vested interests."

# Omnia's Organics

## Notes:



Improves soil structure and water holding capacity; nutrient availability and increased soil biological activity.



Promotes biological diversity, soil health and nutrient availability.



Naturally mined, granulated, continuous release boron. One application for up to two seasons of safe, plant available boron.



Formulated with organic chelates for effective and quick plant uptake.



Organically chelated iron.



Organically chelated copper.



Organically chelated zinc.

## Notes:



Alkaline kelp.



Liquid fulvic acid to enhance nutrient uptake.



Humate and kelp product for soil application.



Concentrated amino acid mix for growth stimulation.



Acidic kelp.



Natural amino acid source that provides natural nutrients and improves soil life.



NASAA certified...  
a sure sign of quality!





# New Opportunities!

Here at Stoney Creek Oils we have been producing premium oilseed products for 27 years.

With our reputation of quality we have built a solid client base that is accustomed to High Quality, Certified Organic, Australian products.

As this market is continuing to build so does our need for new organic growers.

We are seeking premium growers that are interested in building a long term relationship with us, and become a member of our team.

If anyone is looking for new opportunities, please contact Fred obligation free.

Ph: 1300 352 948  
E: fred@stoneycreekoil.com.au



In the 50 years since the first #EarthDay, #climatechange has accelerated, reaching a new peak in the past 5 years, which were the hottest on record. That trend is expected to continue. We need to show the same solidarity and science for #ClimateAction as against #COVID19.

Statement from the World Meteorological Organization marking World Earth Day

## Your NASAA Certified Nutrition Answers



## BOROZINC Precision technologies

Borozinc is a foliar fertiliser that associates boron and zinc in a unique acid pH formulation.

**Boron: 130 g/kg**  
**Zinc: 41 g/kg**

Form Powder pHa (acid pH)  
Pack size 10 kg

## AMYLIS BioFertiliser technologies

Amylis is an innovative technology that will activate the life of the soil. Made from Nitrogen-Fixing bacterias, Amylis will benefit the bacteria population in the soil (maintaining soil life) but also crops (especially through the fixation of Nitrogen).

**Bacteria solution**  
**Bacillus amyloliquefaciens** Pack size 5L

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MYLO®

- ✓ Advanced Biotechnology
- ✓ Quality Assured
- ✓ Australian Owned & Made

**RECOMMENDED  
FOR USE ON  
ORGANIC FARMS**

## MICROBIAL LIVESTOCK FEED SUPPLEMENT

# Mylo® for healthier, heavier and earlier weaned calves.

**Mylo® is liquid live microbial livestock feed supplement to aid in the digestive health of livestock.**

- ✓ Increased animal weight gain
- ✓ University controlled study:
  - 8.4% higher weaning weight
  - Earlier development of gastrointestinal organs
- ✓ Commercial farms - quicker to wean
- ✓ Deliver performance for beef, dairy and sheep enterprises
- ✓ Easier animal health management
- ✓ Liquid product – easy to use
- ✓ No withholding period

### Mylo an excellent fit for organic dairy

**Mylo feed supplement has been instrumental in keeping calves growing and healthy on the organic dairy enterprise of Jake and Helene Perry, at Rushworth, Victoria.**

Jake Perry said they had recently converted their farm to certified organic and have taken a more holistic approach to all of their farming practices.

"We had been looking for new products to increase production and improve herd productivity and health," Mr Perry said. "Helene and I were excited when we came across the Mylo feed supplement as a

certified organic product designed to help increase the growth and development of our calves," he said.

Prior to the organic certification, the dairy had been farmed conventionally and there had been development issues in calves from birth through to weaning.

"Mylo was added to the calf milk on a daily basis and we didn't have any hiccups at all. It is an excellent product," he said.

"I didn't use any other products to maintain health this calving season, which is unusual, and the calves grew well."



*Jake Perry used Mylo for calf health and development on their organically certified dairy property.*

### Major advantages with Mylo in organic dairy



*Healthier calves with the use of Mylo feed supplement on the organic dairy of Mark Chandler, at Mulgundawa, SA.*

**Mylo has helped calves develop faster and provided some major advantages on the organic dairy of Mark and Jenny Chandler, at Mulgundawa, in South Australia.**

Mr Chandler said they had been organic dairy producers since 2002 and had faced numerous challenges over the years.

"Initially production took a hit because we couldn't promote growth and regrowth," he said. "We had to look at alternatives."

Last season he introduced Mylo feed additive, from Terragen Biotech, into the calf program and has been impressed with the results.

He said the key to Mylo was its ability to keep the calves healthy in those vital early stages.

"It's mostly about having a healthy animal then good growth will follow," he said. "It is the starting point of the cow's life when they have the best chance to establish a well-developed rumen."

Mr Chandler said a comparison of the calves with Mylo and the calves without Mylo showed significant differences.

Each calf receives 10ml of Mylo per day which is mixed with whole milk direct from the dairy. "They are gaining weight a bit better, are more sparkly and seem to be happy," Mr Chandler said. "I don't have any reason to stop using it."

He said the success of Mylo in the calves had meant they were looking at its potential in the older stock.

The dairy currently milks 500 cows and is looking to expand to 700 cows. Three of the Chandler family members Simon, Jessica and Kane, are also working on the enterprise.

For more informations talk to your local representative: **Vic – Western Districts** Paul Weston 0438 500 032

**Vic – Northern Vic / Southern NSW** Dean Lombardozzi 0497 499 087 **Vic – Gippsland / Tasmania** Ross Clancy 0428 486 069

**SA** Adam Davies 0498 632 496 **Qld** Andrew Wollen 0413 748 794 **New Zealand** Karl Stokes +64 225 450 150



# UPCOMING EVENTS AT HOME & AROUND THE GLOBE



## BIOFACH CHINA 2020

**Date:** 1 – 3 July 2020

**Location:** Shanghai World Expo Exhibition & Convention Center

NASAA Organic will not be attending this year's Biofach Shanghai event due to the Coronavirus and travel restrictions.

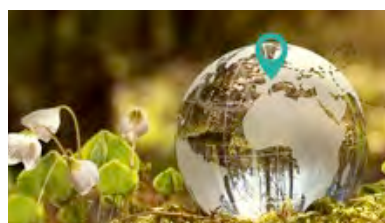
## EVOKEAG.

**Date:** 16 – 17 February 2021

**Location:** Perth, Australia

**POSTPONED UNTIL 15-16 FEB 2022**

EvokeAG is the region's largest agrifood tech event and allows delegates to explore the latest in agrifood technology across five main themes; food – farm – future. This exclusive event will focus on the latest trends, topics and cutting-edge innovation from across the region and around the world, bringing people together to connect, collaborate and evolve all things agriculture.



## ORGANIC WORLD CONGRESS, 2021

**Date:** 6 – 10 September 2021 **Location:** Rennes, France

The organic sector assembles every three years to host the Organic World Congress (OWC), the world's largest organic gathering, but in light of recent developments around COVID-19 this event has been postponed until 2021.

## Why organic matters?



When we look at the challenges currently facing the world, it's reasonable to think that organic agriculture will be a part of solving some of these issues.

This was also highlighted through the creation of the SUSTAINABLE DEVELOPMENT GOALS (SDG), initially developed at the United Nations Conference on Sustainable Development in 2012. Three years on they were set in place by the United Nations General Assembly with the intention of being achieved by 2030.



The SDG are a collection of 17 global goals designed to be a "blueprint to achieve a better and more sustainable future for all".

Proudly organic agriculture directly assists to the achievement of a number of the SDG.

To become a part of this growing industry, either as a member or operator visit [nasaa.com.au](https://nasaa.com.au) or call us on +61 8 7231 7700.





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