

ORGANIC INSIGHTS

SPRING EDITION - 2016



>

ROSNAY TOP TIPPLE AT NATIONAL ORGANIC WINE AWARDS

Full story on pg 2

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PLUS MUCH, MUCH MORE!

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ORGANIC INSIGHTS

WELCOME TO THE SPRING EDITION OF ORGANIC INSIGHTS FOR 2016.

As you have no doubt noticed already, we have updated the format from printed on paper to floating in hyper-space.

Some of you will love this – some of you won't - but from our perspective, it represents a move we needed to make for a number of reasons.

Obviously, electronic magazines use less resources. We have taken paper, ink, envelopes and distribution energy out of the production cycle.

We have also made a considerable financial saving, especially now that magazine postage alone is around \$2 per copy!

The biggest benefit, however, is that we are now able to deliver more information to more people that is more up to date... with the added advantage that you can easily share this information with friends and colleagues.

So, share it around and help deliver the organic message to places where it has never been delivered before.

SOME OF YOU MAY HAVE ALSO NOTICED THAT I AM NEW TO THE POSITION OF NASAA GENERAL MANAGER.

After 30 years in the environment movement, I am absolutely delighted to have been offered the opportunity to come out of the forest, jump the fence and get dirty in the paddock.

Organic agriculture is the most practical expression of living an environmentally sustainable lifestyle.

To preach the theory is one thing. To actively put it into practice is another, and I am humbled by the commitment and hard work that I have already seen in my visits to a number of NASAA certified organic producers and processors.

I hope to see much more over the coming months as I have set myself a target of getting out of the office and into the real world of our operators at least every 2 weeks.

Additionally, I encourage you all to touch base with me, either virtually, via the office or at any of the number of events that NASAA participates in.

Thank you for continuing to support NASAA and our sustainability mission – please read and absorb every bit of our new Organic Insights – and I hope to see you soon.



Mark Anderson
General Manager



NATIONAL ORGANIC WINE AWARD 2016

SAM STATHAM AND
JAN DENHAM NASAA
PRESIDENT



ROSNAY TOP TIPPLE AT NATIONAL ORGANIC WINE AWARDS

ROSNAY ORGANIC WINES 'GARAGE NO.1 COWRA CABERNET SAUVIGNON 2014' WAS DECLARED THIS YEAR'S WORTHY WINNER OF THE NASAA SPONSORED ORGANIC WINE OF THE YEAR AWARD.

Over 300 people were present at the National Wine Centre to congratulate Rosnay's Sam Statham on his win, taking the opportunity to sample the range of wines represented and complimentary organic cheese platters on offer.

While the Statham family are recognized as pioneers of the organic industry, winemaking for Sam began late – after 15 years growing organic grapes, olives and other crops alongside his parents at their property based in Canowindra, a small town between Cowra and Orange in the NSW Central Ranges.

Recognition as the inaugural winner of the NSW Organic Pioneers Award in 2012 (supported by the NSW Department of Agriculture) provided Sam with the opportunity to take a trip to France to learn more from the country's great organic winemakers, and to further explore the concept of 'terroir'.

'Garage No.1' was the first wine produced personally by Sam Statham upon his return to Australia, developed through an acknowledged process of 'trial and error'.

This is the third year that NASAA has hosted the *Organic Wine of the Year Award*, in conjunction with **Winestate Magazine**. The event attracted 139 entrants from across Australia, representing all wine styles and wine grape varieties.

Only certified organic wines are able to be entered in the Award, with all wines blind-tasted by a panel of three independent expert wine industry judges.

The event continues to attract more participants and interest from both within, and outside of, the organic industry with attendees representing producers, farm input suppliers, traders, media and general wine enthusiasts.

A great showcase for Australia's maturing organic viticulture and wine production and a great networking event for all.

We look forward to next year's event!



FURTHER INFORMATION

View the full Media Release

[CLICK HERE](#)

Visit Rosnay

[CLICK HERE](#)

Find out about your Winestate

[CLICK HERE](#)

Discover programs delivered through the National Wine Centre

[CLICK HERE](#)

DIRTGIRL AND SCRAPBOY ARE MODERN DAY ENVIRONMENTAL SUPER CRUSADERS WITH A MISSION TO TEACH THE YOUNG – AND YOUNG AT HEART – HOW TO BETTER NURTURE OUR PLANET... STARTING WITH OUR SOIL.

DIRTGIRL AND SCRAPBOY SAY COMPOST ROCKS!

The environmental warriors join celebrity Gardening Australia presenter and organic advocate, Costa Georgiadis, in episodes of Costa's Compost Academy featuring the Grafton organic recycling facilities of recently NASAA certified input supplier, RichEarth.

Launched in 2012, the RichEarth business grew out of the development of the Grafton facility, established as part of Clarence Valley Council's kerbside organics collection program.

This was followed by the establishment of a further facility at Molong as part of the Orange City Council's organics processing contract. Combined, these two, state-of-the art, in-tunnel composting facilities have the capacity to produce over 30,000 tonnes of high quality RichEarth compost per annum.

The feature program follows the compost trail from kerbside collection to processing and finally to an organic farm, where product is used to enhance existing soils.

A great learning experience for us all!



FURTHER INFORMATION

Join Dirtgirl and Scrapboy at Costa's Compost Academy & find out why compost rocks!

[CLICK HERE](#)

Follow the adventures of Dirtgirl at Dirtgirlworld

[CLICK HERE](#)

Visit RichEarth

[CLICK HERE](#)

Costa's Compost Academy is a special digital campaign and social media initiative supported by the NSW Environment Protection Authority.

DOES ORGANIC FARMING REDUCE GREENHOUSE GAS EMISSIONS?

**AS ORGANIC PRODUCERS, WE LIKE TO THINK
THAT THIS ANSWER IS STRAIGHTFORWARD.**

YES, OF COURSE IT DOES.

Widely reported research findings, however, by University of Oregon Sociologist and PhD researcher Julius McGee - asserting just the opposite - have seen the organic industry compelled to defend its position.

Since its publication in 2015, the controversial paper has received substantial media coverage and international attention.

A recent publication by Muller et al, however, in the Summer 2016 edition of the US journal, Agriculture and Human Values further debunks the core assertion made in the McGee Study that organic farming does not, in fact, correlate to lowered CO2 emissions.

The researchers found the McGee Study to be simplistic, based on flawed methodology and unfounded assumptions, raising more questions than it answers.

The report identifies issues in the lack of establishment of a causal relationship between organic farming systems and increased greenhouse gases, with the authors concluding that:

- McGee tests a hypothesis that does not correspond to his main question and which does not allow McGee to derive the conclusions that are drawn in his paper and reported in the media coverage.
- The data used are not adequate for the analysis because: i) the dependent variable does not reflect the greenhouse gas emissions characteristics of organic agriculture (e.g. different emission factors in organic and conventional agriculture or avoidance of emissions from fertilizer production), ii) the explanatory variables neglect the livestock sector, and iii) trade aspects are missing.
- McGee fails to discuss his findings in the light of quite a substantial body of experimental, bio-physical research from the US and elsewhere.

In an earlier rebuttal to the research findings of the McGee Study, IFOAM President Andre Leu points to the well-documented and studied benefits of organic farming systems correlating to reduced greenhouse emissions, including:

- Non-use of synthetic nitrogen fertilisers, a significant contributor to the emission of N2O and CO2.
- Significantly lower energy use than conventional systems, resulting in significantly less greenhouse gas emissions.
- Contribution in sequestering CO2 and storage in the soil as soil organic matter. Organic farms sequester more greenhouse gases than they emit.

These benefits are well-documented and substantiated by a number of peer-reviewed global research studies that compare organic farming systems with conventional agriculture.

It's hoped that the release of the Muller et al report will further diminish the sensationalism surrounding the McGee Study.

FURTHER INFORMATION

Review the evidence for yourself:

Muller et al

[CLICK HERE](#)

The McGee Study

[CLICK HERE](#)

A rebuttal from IFOAM

[CLICK HERE](#)



THE SCIENCE OF SOIL:

APPLIED BIOLOGY FOR THE ORGANIC FARM

**AS ORGANIC PRACTITIONERS,
WE OFTEN THINK THAT WE ARE
AVOIDING HARM TO OUR
SURROUNDINGS; THIS IS NOT
ENTIRELY TRUE.**

As we plant, prepare, fertilise and control pests and disease, our actions, however well intended, come at a collateral cost. Microbiology sustains some damage through every intervention.

This month we welcome an article contribution from organic consultant, Marc Percival of soil management advisory company, Agrisense, that looks at the importance of understanding, protecting and promoting microbial biodiversity and activity as crucial to the health and well-being of our soil.

**AS A FUNDAMENTAL PRINCIPLE
OF BIOLOGICAL FARMING,
MICROBES ARE CRUCIAL
TO SOIL HEALTH.**

It has been proven that many of the reactions between key groups of microbes are vital to the ongoing health and wellbeing of our land.

If these microbes are nurtured with a few simple techniques, there can be a massive increase in plant and soil health.

Conversely, excessive use of external inputs such as fertilisers and manures will in time weaken and diminish soil diversity and disrupt the soil's natural ability to defend from disease, pests and climatic fluctuations.

The main functional groups of microbes, and role played in building soil sustainability, include:



BACTERIA

Fixes nitrogen, attacks and consumes some fungal diseases, denatures toxins, binds microscopic soil particles together and provides food for other important soil and leaf organisms.



FUNGI

Organises soil structure, improves water holding capacity and drainage, reduces soil compaction and dramatically reduces leaching. Fungi also associate with root systems to help with the uptake of nutrients and trap and feed on some disease causing organisms



PROTOZOANS

Feeds on bacteria, both harmful and beneficial, leaving plant available nutrients in the root zone after taking the carbon they require.



BENEFICIAL NEMATODES

Feeds on bacteria, fungi, and protozoans as well as pathogenic fungi and contributes significantly to nutrient uptake and soil health.

These microbes combine with larger soil organisms to create what is termed the 'soil food web'.

Properly introduced and managed, the soil food web is the farmer's most potent tool in the struggle to nourish and maintain soil and plant health with its ability to:

- Reduce foliar & soil disease pressure
- Reduce soil erosion
- Improve soil structure & reduce compaction
- Provide natural protection from disease
- Increase nutrient cycling & retention
- Breakdown salts & chemical residues
- Enhance moisture infiltration & retention
- Increase Cation Exchange Capacity (CEC) & pH buffering
- Stimulate root growth
- Optimise crop health, yields & returns

VALUE OF COMPOST

The most common source of soil food web organisms is top quality compost. Good compost has all the microbial assets required to inoculate the soil.

Importantly, there have been recent developments in brewing liquid composts, or compost teas that enable convenient inoculation of both the soil and leaf surfaces in the garden, reducing the ability of pathogens to dominate the soil biosphere, while reducing the collateral

damage caused by regular crop maintenance. This allows plant diseases to be suppressed quickly and effectively in most cases by sheer weight of numbers.

Beneficial microbes will colonise plant and soil surfaces and, through competition for space, food sources and predation, curtail disease.

Compost tea is an actively aerated biological liquid, containing an enormous number and diversity of beneficial organisms. It combines a number of natural products (including kelps, fish products, and organic acids) to maximise biological potency.

Repeated applications of compost tea, combined with an appropriate feeding regime for your crop's ecological requirement, will result in a resilient biomass that will feed and protect your crop, providing it with adequate nutrient and water in all conditions.

Feeding compost teas is a bit like feeding Ginger Beer plants; sugars, starches and proteins boost the biology brought to the soil in the Compost Tea and each of these foods activate specific biological groups.

Commonly, molasses, humic acid, fulvic acid, fish hydrolysates and seaweed are employed at different rates depending on soil test results and the crop being grown. Soil chemistry may need some initial amelioration through application of compost. Compost teas are applied when the crop is underway to avoid soil disturbance. The application of compost teas will help balance nutrition with plant protection and will facilitate eventual mycorrhizal growth in the plant's root system and dominance in the crop.

A STRONG MYCORRHIZAL ASSOCIATION IS AN IMPORTANT COMPONENT OF SOIL LIFE AND SOIL CHEMISTRY; IT IS CRITICAL TO CROP, HUMAN AND ANIMAL HEALTH IN SUSTAINING NUTRIENT DENSE, DELICIOUS FOOD.

This is one of the major objectives of Biological farming.

FURTHER INFORMATION

Visit Agrisense

[CLICK HERE](#)

More about the soil food web at the soil food web Institute

[CLICK HERE](#)

OPERATOR SUCCESS STORY

TEMPLE BRUER A MODEL FOR CARBON EFFICIENCY

CONTINUING ON OUR WINE THEME THIS MONTH, NASAA STAFF RECENTLY VISITED THE TEMPLE BRUER WINERY IN LANGHORNE CREEK, SOUTH AUSTRALIA, TO OBSERVE THE CARBON INITIATIVES CHAMPIONED BY OWNER, DAVID BRUER.

Self-sufficiency and innovation are integral to Temple Bruer's vinicultural philosophy.

From implementing and designing specially adapted machinery and equipment, to growing organic fodder crops for compost production, to undertaking on-site laboratory (and human) testing of finished product – and also, to the growing of a biomass crop (*Arundo donax*) for biochar production. He has been growing this crop for a number of years.

Arundo donax is a perennial rhizomatous grass that exhibits high rates of productive growth, producing up to 50 tonnes of dry matter per hectare per annum, low water use, and high carbon storage capacity (sequestering up to 45 tonnes of CO₂).

The commercial potential of *Arundo donax* as a crop for pulp, paper and biofuel production was first identified in research funded by Rural Industries Research & Development Corporation (Dr Chris Williams and Dr Tapas Biswas, with the support of FibreCell Australia Pty Ltd). Temple Bruer are one of the first agricultural enterprises to implement active trial programs of *Arundo donax* in the production of biochar.

Whilst the plant species is listed as an invasive weed in Qld and NSW, Temple Bruer have an active management plan in place to contain the 1.2 hectare plot.

"The plot is surrounded by compacted ground roadway that limits the spread of plant rootstock," says David.

"Regardless of this, we are treating the area with a great deal of care and taking no chances," he says.

The giant reed is also sterile, hence the improved ability to keep it contained.

Biochar is produced using slow pyrolysis (heating in the absence of oxygen) of biomass. Temple Bruer have invested in a Hornito style biochar kiln manufactured by FFT Holdings, where biochar is made at a temperature of 450 degrees.

Biochar has been widely acknowledged for its carbon sequestration properties, contribution to increased soil organic matter and long carbon storage lifespan. However, further research and longitudinal studies are required to measure carbon storage capacity, with current estimates ranging widely from decades to centuries, dependent on the biomass source utilised and processing conditions (pyrolysis temperature) adopted.

"Our challenge is to find the right balance of maximum possible half-life, whilst maintaining optimal structure, nitrogen and phosphorous levels," says David.

Trials commenced at Temple Bruer in 2015 and the biochar is mixed with homemade compost to activate it prior to return to the soil.



“Initial trials are promising and it is expected that with some more detailed analysis, use in the vineyard will follow soon”, says David.

“Our final hurdle is determining the optimal method for capping the compost, which will require further cost-benefit analysis.”

Temple Bruer has been certified Carbon Neutral since 2011, measuring its footprint in a ‘cradle to gate’ lifecycle assessment and audit in conjunction with carbon asset management services company, Canopy.



(L-R) NASAA Certification Staff, Carolin Moeller, Wambui Gikenye, Nyla Ahmed and Haruyo Sakai with David Bruer

Canopy have assisted Temple Bruer to analyse and offset its carbon emissions to the greatest extent possible, but this has still meant purchase of carbon credits to offset the remainder. It is hoped that the biochar initiative will result in production of 20 tonnes of biochar each year, capturing some 73.3 tonnes of CO₂. These measures will assist in bringing Temple Bruer closer to its goal as a fully closed, self-sustaining system.

David truly embodies the concept of ‘pioneer’ in his continued journey to achieving full commercial and environmental sustainability. David is unusual in that he is a chemist by training but he remains passionately organic, and is generous in sharing his knowledge with others, including both trials and tribulations.



Above - *Arundo donax* crop

Left - Mixing biochar with compost on site

OTHER INITIATIVES

Temple Bruer embraces a holistic approach to sustainable agriculture.

OTHER CARBON REDUCTION MEASURES

Analysis of Temple Bruer’s carbon footprint revealed the highest contribution to CO₂ from the use of glass bottles. Switching to the use of light weight bottles has resulted in a 19% reduction in CO₂ footprint. Other initiatives include purchasing all new vehicles that are EU compliant (125g CO₂/Km), the purchase of 40KW solar system, and implementation of an active native revegetation program undertaken in line with catchment guidelines.

RENEWABLE ENERGY

Temple Bruer plan to increase generation of renewable electricity through a combination of further investment in solar and in the pyrolysis plant.

WATER MANAGEMENT

Temple Bruer utilises advanced computer controlled drip irrigation and soil moisture monitoring system to give greater control over where and when irrigation occurs.

SOCIAL ENTERPRISE

The company embraces sustainable land management principles but also equity in social enterprise. Temple Bruer staff are actively encouraged to treat the business as their own, and are regarded as part of the ‘family’, with gender equality a given.



FURTHER INFORMATION

Recent ABC News article

[CLICK HERE](#)

Related article

[CLICK HERE](#)

Visit Temple Bruer

[CLICK HERE](#)

More about Biochar field trials from the NSW Department for Primary Industries, where field trials provide the world’s largest demonstration of biochar, field trials from the NSW DPI

[CLICK HERE](#)

More on Canopy’s carbon asset management service

[CLICK HERE](#)



GLOBAL ORGANIC SALES REACH USD \$80 BILLION

ALL FIGURES ARE ON THE RISE FOR ORGANIC, ACCORDING TO A RECENTLY RELEASED GLOBAL PUBLICATION FROM FIBL AND IFOAM.

Key indicators from the The World of Organic Agriculture Statistics & Emerging Trends 2016, released at the BioFach Organic Fair in Nuremberg in February, point to a continued increase in consumer demand for organic product, number of farmers into organic farming, and land certified as organic.

Based on the last year of available data (2014), global figures show the:

- Global market for organic food valued at \$USD 80 billion
- Largest markets for organic being the US, followed by Germany, France and China
- Highest per capita spend on organic product in Switzerland and Luxembourg
- Total number of organic producers at 2.3 million
- Largest number of organic producers in India, Uganda and Mexico
- Total of 43.7 million hectares under organic management worldwide, with Australia topping the list in terms of total area under organic management, followed by Argentina and the US.

THE AUSTRALIAN CONTEXT

Key emerging trends for Australia reflect the global trajectory.

Based on 2014 indicative figures, Australia has:

- Over 18.3 million hectares of land under organic management, accounting for around 4.1% of total agricultural land
- Farm gate sales estimated at \$AUD 440 Million, of which Beef production accounts for 14% and Fruit, Veg and Grain 28%
- Over 1,707 organic producers

Whilst the figures make for easy headlines, the analysis of these statistics requires some understanding of limitations and systemic issues inherent in the methodology for collection of, access to, and analysis of consistent and meaningful data on organic agricultural production in Australia over time.

The estimation of farm gate values of agricultural commodities in Australia relies on analysis of various sources of data collected over time by a number of bodies, including AQIS, ABS Agricultural Census 2010-11 (Value of Commodities) and industry sponsored research – each with differing methodologies.

Still, a healthy picture of the current scope and scale of organic production in Australia!

FURTHER INFORMATION

View the IFOAM Media Release [CLICK HERE](#)

Download the full Report [CLICK HERE](#)

RELEASE OF THE NATIONAL ORGANIC MARK:



BUILDING CAPACITY WITHIN THE AUSTRALIAN ORGANIC INDUSTRY

THE RELEASE OF THE NATIONAL ORGANIC MARK IN 21 JULY, 2016 REPRESENTS A SIGNIFICANT STEP TOWARD THE INDUSTRY GOAL TO DEVELOP A UNIFIED MARK TO FACILITATE GLOBAL RECOGNITION FOR AUSTRALIAN ORGANIC PRODUCT.

The voluntary national seal was released by the Organic Industry Standards & Certification Council (OISCC) and the Organic Federation of Australia (OFA) following several years of industry consultation.

The Mark provides an internationally recognized trademark for Australian certified organic product, similar to national programs operating in the US and through the EU.

The aims of the common seal include:

- Greater consumer recognition through recognition of a single Mark
- Streamlined global marketing for Australian organic operators
- Greater protection for the organic industry
- Greater impetus for recognition of Australian organic equivalency globally.

CLICK HERE for rules for the use of the new voluntary **National Organic Mark** provided on the OFA website.

CLICK HERE to contact the **NASAA** offices if you are an operator seeking to use the National Mark on product packaging.

SAVE
THE
DATE

FURTHER INFORMATION

View the full media release from the OFA

CLICK HERE

OFFICIAL LAUNCH OF THE ORGANIC MARK IN CANBERRA ON THE 30TH NOVEMBER

Details will be available on the NASAA website site closer to the date

STAFF
NEWS

FAREWELL TO PETER HASTIE

FOR ALMOST 2 YEARS PETER HASTIE HAS BEEN OUR MAN IN THE EAST – OFTEN IN THE NORTH, SOMETIMES IN THE SOUTH AND EVEN OCCASIONALLY IN THE WEST.

As operations manager he has tirelessly promoted sustainable agriculture for NASAA and become the public face amongst many of our operators.

In his travels he has chewed the chaff, tasted the topsoil, fondled the fleece, marvelled at the marbling, kicked the Cockspur and possibly felt an udder or two as he provided key information and encouragement for many synthetic farmers to cross over into organic territory.

A consummate communicator with a real passion for our industry Peter will be greatly missed amongst both our customers and staff.

He has decided to move on to greener fields – wheat fields in particular – as the new organic grain buyer for Primal Foods Group.



OUT AND ABOUT

WE TAKE A LOOK AT SOME OF THE ORGANIC EVENT ACTIVITIES COMING UP IN YOUR AREA.



2016 CONFERENCE

Fri 9th - Sun 11th Sept

[CLICK HERE FOR MORE INFO](#)



Sat 17th - Sun 25th Sept

[CLICK HERE FOR MORE INFO](#)

SAVE THE DATE

NASAA AGM, Organics Seminar and 30th Birthday Dinner

Sat 30th September

NEWS ROUNDUP

VIEW THE LATEST NEWS FROM AUSTRALIA AND AROUND THE GLOBE - JUST CLICK ON THE ARTICLE PANELS ON EACH STORY TO SEE AND READ MORE.



Australia a signatory to global commitment to increased soil carbon targets at Climate Talks.
Target 0.4% increase in soil carbon a year to halt increase in CO2.

[ARTICLE A](#)

[ARTICLE B](#)



A Price Spike for Organic Beef:
OBE Organic, Thomas Foods International & Teys Australia call for more industry suppliers as the 'fastest growing beef segment'.

[ARTICLE](#)



Unmet demand for organic grain:
Lack of supply holding back industry potential.

[ARTICLE](#)



China demand for Australian organic Beef and Dairy continues to soar

[ARTICLE](#)



Organic Dairy defies industry trends:
Switching to organic insulates WA dairy from milk price war

[ARTICLE](#)



Australian Dairy LEGENDAIRY

Legendary campaign:
Shining a spotlight on the Dairy Industry in August.

[ARTICLE](#)



Buy local, buy organic.
Power to the People in campaign for a fairer price for our Dairy Farmers.

[ARTICLE A](#)

[ARTICLE B](#)

[ARTICLE C](#)



Study finds that concentrations of a range of antioxidants found to be substantially higher in organic crops; with lower pesticide residues.

[ARTICLE](#)

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