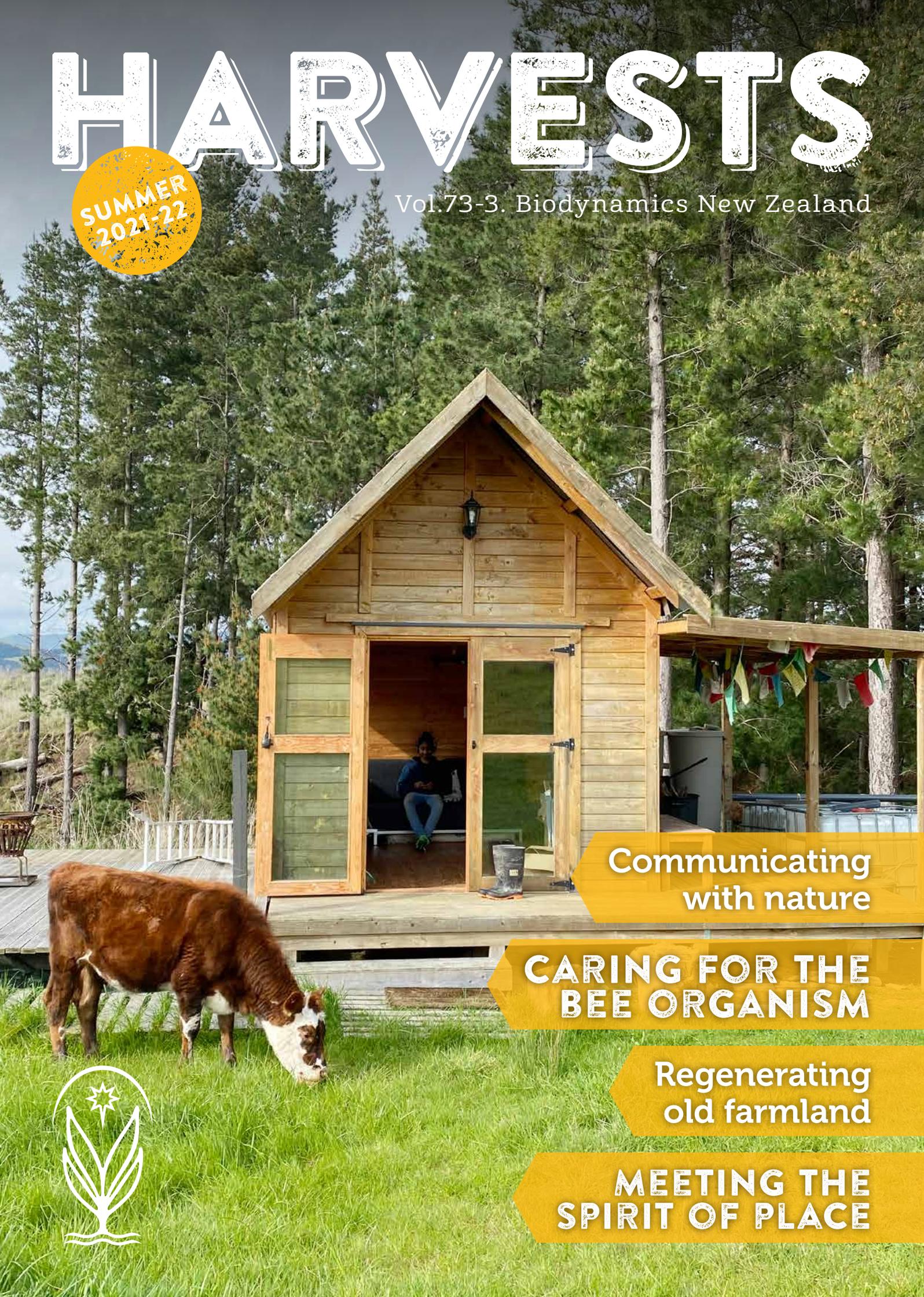


# HARVESTS

Vol.73-3. Biodynamics New Zealand

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2021-22



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## HARVESTS

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**Front Cover Photo**  
Juvena Jalal and her family are regenerating a Wairarapa farm block using biodynamics.  
Photo credit: Juvena Jalal

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*Biodynamics New Zealand exists to guide, foster and safeguard the*

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Biodynamics New Zealand members  
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See page 37.

# Editorial

It's quite a time to be alive. This has always been the case, of course — but lately it seems like when I say this, everyone agrees!

Tired of watching my mind tie itself into tangles trying to understand and predict things that cannot be fully understood or predicted, a few months ago, I took myself out to the wilds. It was one of the best decisions of my year. Standing in wind gusts and a soaking gray drizzle on a West Coast beach, facing the edge of crashing waves, eventually my narrow concepts of 'what's going on' softened and broadened. What's going on? The planet is turning, orbiting around the sun. What's going on? The ocean is surging up onto the land, in tune with the rhythms of the moon. What's going on? We are living, feeling, breathing, (over)thinking bodies that often possess an acute preoccupation with past and future scenarios, when in fact the only moment that we can live in is this one.

What a deep relief washed through me. And still, when I listen for it, I can feel that knowing humming in my cells.

When things get wobbly in the realms of collective human consciousness, nature can offer a reorienting refuge. The mountains aren't worried about what's going to happen next month. (Well, I may be wrong in that assumption, but the mountains I visited on my trip didn't outwardly appear to be worried.) The ocean doesn't seem concerned about who agrees with its perspective, and what the other oceans will think of it; it may not even be aware that we have conceptually divided it into multiple oceans, when in fact all of the oceans on this planet are one continuous body of water.

For those without the privilege of access to vast untamed wilderness at the moment, there are always smaller wildernesses to connect into. Back home in my working world, the floppy florets of multicolored spring flowers outside my window remind me that the way of life is simply to bloom into each opportunity that we are given, regardless of how fleeting our beauty. On city sidewalks, 'weeds' grow up between the cracks when given even the smallest chance. Nature's impulse to grow, to bring back the balance, never wavers. And that same natural impulse lives in each of our cells.

In 1968, a microbiologist named Clair Folsome scooped up various collections of seawater, microorganisms and

algae on Hawaiian beaches. He then sealed these random aquatic communities inside glass flasks, each up to a few litres in size. He called these enclosed mini-ecosystems "ecospheres". Decades later, Folsome's sealed ecospheres continued to thrive, each community cycling nutrients and air internally in its own interconnected little biochemical world. Somehow, the forces of life negotiate a collective balance to keep life alive, almost every time. This gives me hope.

This issue of *Harvests* contains many reminders of how we can creatively partner with the power of nature. Saskia von Diest writes of 'eco fluency', the capacity to communicate with nature using all of our senses, which can enable us to cocreate productively with the natural world. This capacity is available to all of us; like the algae in those ecospheres, we are part of the web of life, and abundant possibilities open up to us when we learn to tune into our place in the cycles. Elsewhere in this issue, Berni Courts writes of the essential process of grounding oneself in the natural cycles of a particular place. And stories from across Aotearoa, throughout these pages, offer fine examples of how human beings can collaborate with each other and with nature, right where we find ourselves.

As we move through the height of the year's growing season, the forces of nature are always available to call us home to our place in the web of all things.



- Rebecca Reider



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# WHAT'S STIRRING

## BIODYNAMIC NEWS & EVENTS

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In this age of isolation and disconnection, many are finding social media a way to keep connected. As Katrina Wolff mentions in her article this issue, while nothing beats getting together in real life, the shift to online conferences has been a silver lining to Covid, creating access to teachings that many people may never have been able to have before. The online world is also a great place to share what different groups and communities are up to in real time. The many 500 stirs that took place during Organic Week this past September were really special. Thanks to those who participated!

Here are some of our favorite posts from social media platforms where users have been using the hashtag #biodynamicsnz and tagging us in their posts @biodynamicsnewzealand. Feel free to tag us in your posts about biodynamics for a chance to be reshared in our stories and published in *Harvests*.

In regards to upcoming events, the Biodynamics New Zealand website is updated regularly, so be sure to check <https://biodynamic.org.nz/news-events/calendar-of-events>. We also mention new events in the FiveHundredFootnote email that gets sent to members. If you don't receive it in your inbox, check your junk or spam folders.

If you have an event coming up that you would like to share with us, please email [info@biodynamic.org.nz](mailto:info@biodynamic.org.nz).



Photo: Amoise Wines

Digging up preparation 500 that was prepared in autumn @amoisewines.



Photo: Jess Lamb

Earlier in the year Jess (@eco\_runawayjess) received her copy of *Harvests* magazine and found a cosy spot in the garden to have a read.



Photo: Wrekin Vineyard

The team at the Wrekin vineyard (@thewrekin) have been busy with all things biodynamic, including making mammoth compost piles. Impressive stuff.

## THE POWER OF GENEROSITY

### Biodynamics New Zealand welcomes donations

Our roots are firmly planted in the earth to grow a healthy future for New Zealand. The work goes on to educate and promote biodynamics, and to campaign on such issues as GMOs and government regulation and legislation.

A very big thank you to those who make donations which enable us to carry on this good work. There is more work to be done, and we rely on the generosity of members and the public to support our efforts.

For information about making a bequest in your will to Biodynamics New Zealand, or donating to the cause, please contact us on [info@biodynamic.org.nz](mailto:info@biodynamic.org.nz).

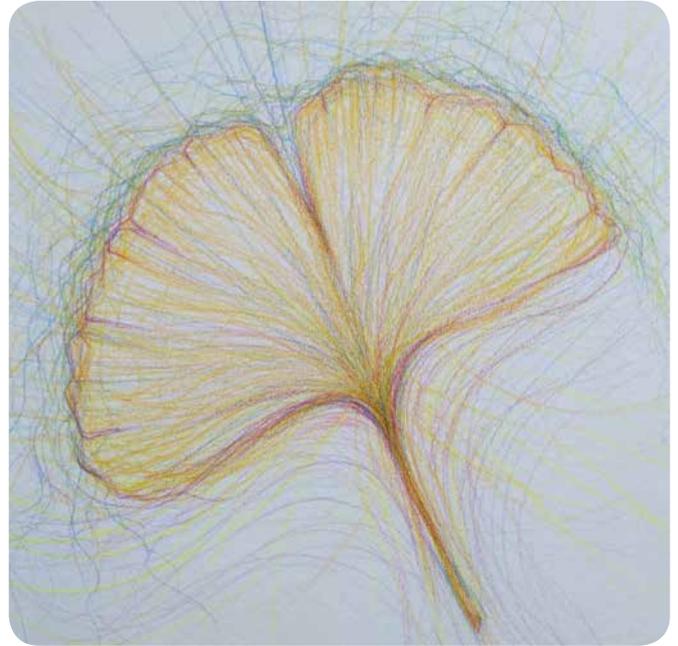


Photo: Emma Toy

Emma runs art workshops and classes in Marlborough. This drawing was inspired by observing the ginkgo leaf. Beautiful work @hartcreativenz.



Photo: Pharmer Phil

Phil shared his stir experience with us on Instagram. It was great to see how they got on at Pihi Farms (@pihifarms).



Photo: Amanda Bradley

Getting the vortex swirling at the Te Rā spring equinox stir attended by @holistic\_human\_aotearoa.

# THE TIMES THEY ARE A-CHANGING

---

## Members of the Biodynamics New Zealand Council share their visions for the way forward



Christine Moginie was chair of the Biodynamics New Zealand Council from June-August 2021

Photo: Christine Moginie

### Moving through chaos

**Christine Moginie**, outgoing chair

How do we individually define chaos in these challenging times, from a biodynamic perspective? What do we have collectively to strengthen us to stay present in the moment, and manage the fallout on a daily basis?

The image and experience of stirring the field preparations comes to mind as an archetypal and practical process.

Watching as the center of the vortex of life forces becomes so deep that we sense we need to change direction, finding the courage to disturb the order, and pause, breaking the current rhythm, feeling the resistance, holding the focus, breathing into the new opportunity.

Then creating the surge of chaos with a flick of the hand, or a paddle on the stirring machine, striving to manage the myriad substances contained in the element of water. Chaos occurs, focus, not controlling but working with the new direction, water drops splashing up and out of the container, light, warmth, sound, moisture, substance, vibrations stimulating the senses, ego forces balancing, and riding the waves of the new rhythm.

The vortex deepens again, a new direction calls, and the process continues as we know, connecting cosmic and terrestrial energies through the actions of a human being. Our thoughts, feelings, actions, levels of consciousness, presence and skills are called into play and creation in moments of space and time.

Pressures to adhere to the old ways, doubt and fear of the unknown, longing to explore the new, trusting our intuition, imagining the future, dealing with the resistance with hope.

Do the Earth, the plants and animals question all these changes and processes as I do as a human being? I can only wonder.

We are all having to make changes in our current time of world chaos, and here we are as your current Biodynamics New Zealand Council members: Joanne Turner, João Corbett, Katrina Wolff, Monique Macfarlane, Andrew Criglington and I, striving to guide these changes as we move into the unknown. Our focus has been on the search for new forms, without losing sight of the depth, wisdom and essence of what has gone before.

There are some new and older innovative directions being discussed, debated and attempted. Online education has become a reality with Covid lockdowns cancelling planned hands-on workshops with Su Hoskin and others. For many that has meant serious upskilling, with many moments of frustration and laughter!

Thanks to generous Kete Ora Trust funds, we have new contracted roles, with Cathy Jamieson our dynamic secretary, new marketing whizz Laura Hett, and *Harvests* content editor Amanda Bradley managing the social media channels. Catherine Biss continues to maintain the office manager role in her usual efficient manner. Joanne Turner was recently reelected as Demeter Secretary, and is now chair of the Council, since I stepped down at the end of August. (*Editor's note: Su Hoskin stepped down from her role as education coordinator at the end of October, and current new projects are being ably managed by Cathy and Laura in the interim.*)

As I write these words, today is the spring equinox. There's been lots of rain lately, with strong winds and cool mornings here in Mangawhai. We dug up the horns from their unusually watery grave due to flooding at Pauline Mann's, where we make our preparations locally. The clay capping kept the contents of the horns intact, and despite the horns being very wet, we had a good brew to stir and put out, with the help of lemon balm tea, chocolate and Proper Crisps. My new garden sighed with relief. Who knows what the next few months will bring? Thank goodness for seasonal rhythms, the elements and the elementals, and Mother Nature directing the focus.

### Moving forward

No doubt there will be more change. So what changes would you like to see happening in Biodynamics New Zealand?

We on Council are interested in enlivening the regional groups as pods of connection to share skills and experience with those who want to learn about biodynamics. Projects to explore include mentoring and networking, connecting through online Zoom chats, courses, podcasts and also, when

still possible, hands-on learning. We can envision offering beginner, intermediate and experienced online courses, interviewing and filming the biodynamic wisdom keepers and extending networks locally and globally.

We're interested in upgrading the website, rebranding and reworking the content, allowing for new language to express what is happening now in our turned-upside-down world.

Are you interested in any of these possibilities, keen to be more involved, take on a regional pod, share your ideas? We are your association and we would like your feedback and involvement. Please get in touch with Cathy (secretary@biodynamic.org.nz) with your thoughts.

Enjoy the summer, hopefully free of lockdowns, and let's see what 2022 brings.



Council member  
Katrina Wolff

Photo: Katrina Wolff

## A vision of compost Katrina Wolff

I really enjoy how my council role lets me wear a 'BD Advocate' hat wherever I go. It might be my imagination, but it seems like lots more organic groups are wanting to learn about biodynamics, and making compost, and ever so gradually it feels like biodynamics is becoming a logical choice for organic gardening in New Zealand. It's so exciting.

Schools are also wanting to know about biodynamics, and I'm seeing more urban farmers and businesses interested to bring biodynamics into their work, both in CSA models and through community composting.

One of the ideas that grabbed a few people's attention this year was the vision of 100,000 biodynamic compost piles in Auckland City. What would it take to make that happen? Is it even possible? How would people be talking about their gardens if we achieved it? And... wouldn't it be fun to help make it happen?

Thank you to everyone for telling your friends about Biodynamics New Zealand, and for sharing your love of the soil in your workplace and in the community. The more we share, the more quickly all the ripples will start to overlap. Let's all make more compost!



Council member  
Monique Macfarlane

Photo: Monique  
Macfarlane

## Cultivating community Monique Macfarlane

Maybe you could think about how you might: Bring together community... revitalise regional groups... connect with fellow practitioners... encourage more people into the fold. The time is now. Mother Nature needs our help to nurture her, and biodynamics is the natural choice.

Call up a friend who has never seen a stir before; invite your neighbours; contact the local high school and hopefully discover the next generation of land carers; be the stewards of this precious information.

Let's come together in community, and make the vortex stronger, deeper, more present.



Joanne Turner is currently chair of Biodynamics New Zealand Council and secretary of Demeter New Zealand.

Photo: Joanne Turner

## Leading by example Joanne Turner, current chair

Another year is about to end, and we get closer to the 100<sup>th</sup> anniversary of Rudolf Steiner giving his lectures at Koberwitz, the event that marked the birth of the biodynamic movement. If Steiner were alive today, would we still be asking him for guidance on how to farm in harmony with nature? I would say yes, and it's needed as much now as it was in 1924.

There is an awakening that conventional agriculture has taken us down the wrong path, and as an association we need to be at the forefront of leading people down a new path for farming and gardening. Council is working on ways to spread the biodynamic word, and members have an opportunity as well to lead by example.

Enjoy the holiday time that is quickly racing towards us, a time when family or neighbours may comment on the tastiness of your veges or fruit; remind them that they taste so good because they're biodynamic! ■

# Ecofluency

## COCREATING WITH NATURE'S COMMUNITY

Dr Saskia von Diest, founder, consultant and facilitator of Ecofluency, offers insights into communicating and cocreating with the more-than-human world.

My dream since childhood has been to help rebalance humanity's relationship with our Earth. Born and raised in South Africa, I studied plant pathology, because agriculture is arguably our species' most impactful interface with Nature.

After completing my PhD at Stellenbosch University at the end of 2013, I received an enticing job offer from a multinational agrichemical corporation, which many believed to be the 'natural reward' for years of lab and field work. I watched my colleagues eagerly accept similar offers, keen for the financial security promised.

But something had happened during my PhD that completely changed my worldview. I had attended an animal communication workshop with Anna Breytenbach in 2012. There it became clear to me that interacting with our food-growing landscapes through interspecies communication is a far kinder and more holistic approach than synthetic biocidal chemicals. Rather than eradicating those perceived to be pathogens and pests, why not first communicate, and negotiate with them? After all, microbes have as much a right to live as humans.

“ Rather than eradicating those perceived to be pathogens and pests, why not first communicate, and negotiate with them? ”

So, I rejected the corporate job and began a postdoctoral research fellowship at the Department of Conservation Ecology and Entomology at Stellenbosch University in South Africa. In 2017, I continued my research in a second, collaborative postdoctoral fellowship between Stellenbosch University and the Centre for Agroecology, Water and Resilience at Coventry University in the UK.

My aim was to investigate how farmers use intuition and interspecies communication to inform practical farm management decisionmaking. I found that many farmers from

South Africa, the Netherlands, the UK, Italy and China were regularly using intuition rather than formalised and computer decision tools to make management decisions.<sup>1</sup>

Based on this data, and on other studies about farmers in South America, Sri Lanka and Europe<sup>2</sup>, I documented numerous benefits of using intuition and interspecies communication for farm management, such as:

- Lower inputs (e.g. water, fertiliser, fuel, vet costs, time to make decisions)
- Improved outputs (e.g. higher yield, feed conversion in animal production, longer product shelf life)
- Greater profit margins
- Reduced negative environmental impact
- Improved personal wellbeing (e.g. feeling healthier, more satisfied and more in harmony with Nature).

Examples from this study are presented in the chapter 'Intuitive farming: Heart-based decisions for harmony in agricultural ecosystems', in the recently published open-access *Subtle Agroecologies: Farming with the Hidden Half of Nature*.<sup>3</sup>



Photo: Alex Hanly

Saskia von Diest

Throughout my postdoctoral years, I continued developing my Nature communication skills with various teachers. As a scientist by training, it was hard for me to let go of needing to understand exactly how Nature communication works. But the most challenging thing in my professional research was struggling with how Western science views Nature communication; the very possibility of its existence is often dismissed!

Then, in 2020, I became less concerned with *how* it happens and more interested in *that* it happens, and then simply *letting it happen*. I took the leap of faith to found Ecofluency.org, an emergent organisation that teaches, supports and promotes Nature communication.

### Ecofluency: Cocreation with Nature

Ecofluency is the innate human skill of sharing dialogue with Nature. I define it as “the ability to fluidly and accurately converse with more-than-human Nature using the expanded spectrum of human sensory awareness.”<sup>4</sup>



Photo: William Parsons



Photo: William Parsons



Photo: Eleni Gkikakis

Above top: Meeting a horse on a pilgrimage.

Above bottom: Tuning in with a bull at Spier, a biodynamic estate in South Africa.

Top right: Intuitively picking cherries on a farm in the UK



Ecofluency means feeling at home, using deeper communication to meet other-than-humans as kin.

As with much of human language, a word’s roots can offer a deeper understanding. ‘Eco’ comes from the Greek *oikos* meaning ‘home’, while ‘fluency’ derives from the Latin *fluentem*, meaning ‘free-flowing’ or ‘relaxed’. Ecofluency means feeling at home, using deeper communication to meet other-than-humans as kin.

Most ‘eco’ terms focus on potential benefits for humans, often based on refining our observation of Nature. While this approach can be immensely useful to humans, it is typically one-sided. Ecofluency focuses on all sides of the relationship, as it “not only requires fostering an intimate comprehension of the functioning of interconnected ecological systems, but

it invites us to acknowledge and apply our understanding of the bidirectionality of our participation with/in 'Nature', to cultivate a sense of harmony (flow) through a process of co-creation (dialogue) with the more-than-human world.<sup>44</sup>

Of course, this is not new. Ecofluency echoes what many indigenous cultures and spiritual traditions have taught for a long time: that Nature, including our beloved Earth, is alive, conscious, and can be communicated with, to benefit the evolution of humans *and* other-than-humans. With this perspective, ecofluency is not only our birthright, but our duty.

Rudolf Steiner recognised this too, describing humans as the bridge between the cosmos and earthly realm. Other Western scientists also use Nature communication to evolve how we advance knowledge, such as Dr Monica Gagliano, whose experiments exploring plant cognition are cocreated with the plant species that she studies.<sup>5</sup>

Ecofluency invites us to reimagine the dynamic patterns of relating and communicating that we have learned and

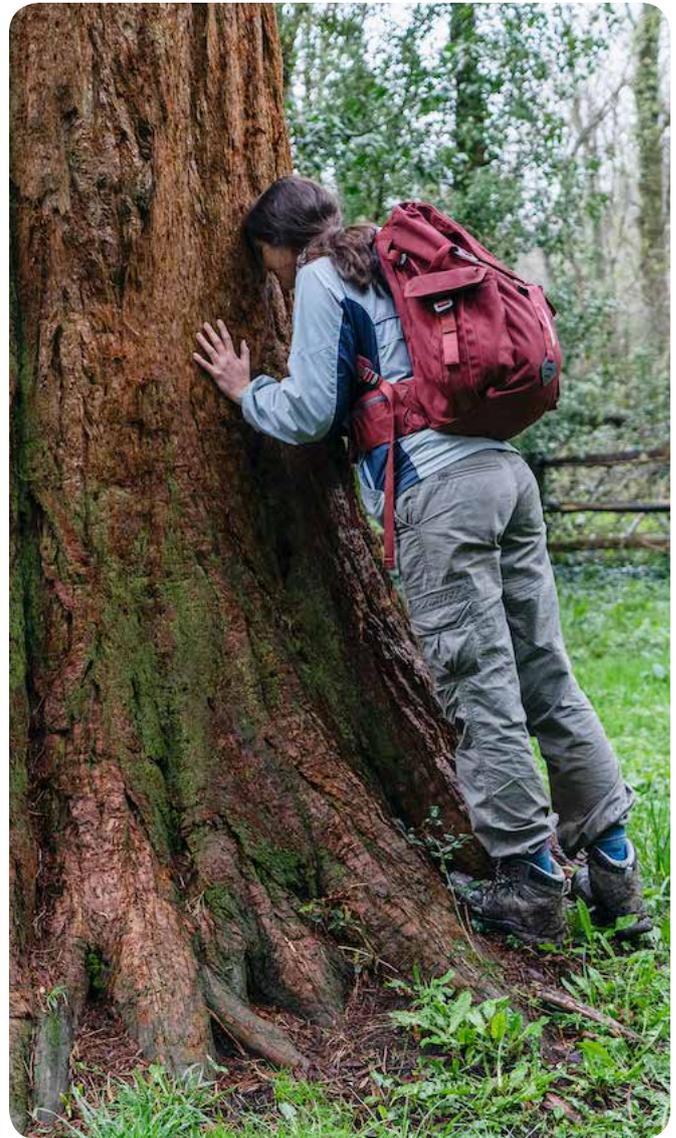


Photo: William Parsons

Tree reverence and communication.

inherited, which includes how well we understand and hold healthy boundaries. How we relate with the rest of Nature is often affected by, and affects, how we relate with humans.

Communicating effectively, authentically and meaningfully means awakening and raising awareness of our sensations, emotions, inspiration, imagination and intuition, to become more in tune with how Nature transmits information. Rather than searching with eyes and devices, we can relax and listen with more of ourselves, and allow aspects of Nature to reveal themselves in clearer focus.

The invitation is to try *less* hard, to simply be at peace in our home of body, mind and Earth, and to remember the deep knowledge that we *are* our home. Ecofluency enshrines the communion in communication.

This process shifts and expands our worldview to recognise that not only is everything interconnected, but all is conscious and can be related with. *Everything* becomes *everyone*. As one of my teachers, Dr Daniel Foor, says: "The psyche has never been only human."



Photo: Melissa Roussopoulos



Photo: Saskia Diest

Above top: Interviewing intuitive farmer Jan Dirk van de Voort from Remeker Farm, Netherlands.

Above bottom: Sharing a moment with Remeker's cows.



Photo: Ekse Lens



Rather than searching with eyes and devices, we can relax and listen with more of ourselves, and allow aspects of Nature to reveal themselves in clearer focus.

### Ecofluency and biodynamic farming

Currently, biodynamic certification only regulates physical practices on farms, yet Steiner’s teachings encourage farmers to develop self-observation and intuitive abilities, and to incorporate the information gained in their practical decision processes. Biodynamic agriculture is the only form of modern agriculture with the potential to proactively recognise and encourage intuitive farming as an agricultural tool. And ecofluency can offer a way for biodynamic farmers to advance the lesser-known Nature communication aspect of their practice.<sup>4</sup>

In my in-person and online workshops, and with my clients, whether organisations, groups or individuals, I show how ecofluency can help us cocreate our practical decisions with Nature, whether for professional or spiritual purposes, or both. I find it to be an increasingly critical skill in building resilience, and growing beyond resilience, as I spoke of recently in a keynote co-presentation for the 2<sup>nd</sup> International Biodynamic Research Conference.

Today, my work is finally coming full circle to meet my childhood dream. Ecofluency lets me help reignite more people’s ability to communicate with Nature, safely, effectively and meaningfully, to benefit themselves and all of life.

The author facilitates an experiential workshop in ‘Different ways of knowing: Ethical research practice in agroecology’, at the Agroecology for the 21st Century Conference in Cape Town, South Africa, January 2019

A dear teacher of mine, the late Dan Schreiber, used to say: “Humans have the will, and Nature spirits have the power. If we lend them our will, they will lend us their power.”

Please visit [ecofluency.org](http://ecofluency.org), and join me in growing our future in true harmony with Nature. ■

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# Regenerating FROM THE GROUND UP

By Juvena Jalal

Juvena Jalal works in education. Here she shares her family's journey of finding the right land for themselves and using biodynamic and regenerative practices in the Wairarapa. They intentionally chose a section that had been over-farmed, with a goal of lovingly restoring nutrients and life to the soil.

Photos: Juvena Jalal



Above: The children, Mir and Inaaya, set up a solar-powered electric fence to portion out the paddock to give it time to regenerate.

Below: Biodynamic practices, such as 500 stirs, have become routine.

This issue's cover photo is also from this family's story.



Our journey began more than seven years ago, when we first started dreaming of regenerating a paddock into a food forest and growing our own food. While the words came to me in the context of an education programme I was researching, they resonated deeply with my vision for our little patch. Yareev and I shared this vision and agreed to name our biodynamic regenerative project 'He Kakano'.

By 2013 I had become addicted to watching documentaries that offered different ways of doing things, looking for a way out of our industrial monocrop model of food production and a solution to our climate crisis. Then one day I found a DVD in our local library entitled *One Man, One Cow, One Planet*. Watching it, we felt an instant and deep connection to what Peter Proctor and Rachel Pomeroy were saying. It had the wisdom of the past and held the promise for the future! Yareev and I knew we had found the path we wanted to take. Suddenly the sessions for stirring 500 at the Steiner school made so much sense. Signing up for the next biodynamic course being offered by Rachel Pomeroy seemed like the most natural thing to do.

We actively started to look for a piece of land that had experienced years of chemical use and lacked plant diversity. Our search led us to a five-hectare block of pasture land and pine plantation, where the soil was so depleted that we didn't find a single worm when we first started digging. We soon started to feel quite overwhelmed by the magnitude of the work on hand. We started developing a plan and knew we needed to be guided and mentored by those who had walked this path ahead of us.

I started calling and talking with the organic farmers I knew, visiting their food forests, helping turn their compost piles and learning to make sourdough bread, kefir and kombucha along the way. Joining Biodynamics New Zealand was a great way to find biodynamic gardeners happy and willing to share their knowledge. In South Wairarapa, I was fortunate to find one such biodynamic gardener, Anne Dodds, who was kind enough to visit our patch and take the time to guide me through the challenges that lay ahead. One of the key messages I took away from her visit was that you cannot rush this; the regeneration process takes time,



Our search led us to a five-hectare block of pasture land and pine plantation, where the soil was so depleted that we didn't find a single worm when we first started digging.

and a number of things had to happen before the growing could start.

In the last four years, our focus has been on growing the soil and bringing biodiversity back to this land at a microbial level. We decided to stop getting heavy machinery in to cut the grass to make bales of hay, as had been done in the past. Instead we decided to let the grass grow and break down back into the soil. In the absence of a large herd of cows, we used our four-wheel drive instead to trample the tall grass. We sprayed 500 to bring life to the depleted soil. With the size of the land that we had, we knew we would eventually have to bring in animals to help us, and in 2020 we added sheep and cows to our paddock to help us produce some of the rich biodynamic preparations in-house. Our retired suburban backyard hens joined the animal brigade at He Kakano, and after the addition of a young rooster they have successfully started a young family, with three new chicks. This completely free-ranging flock do a wonderful job of turning the compost.

It has been a steep learning curve at times – dealing with sick and dying animals, construction material being blown away by strong winds, rainwater shortage, logging trucks and machinery crushing newly planted fruit trees! But it has also been a wonderful time to connect as a family and find our strengths and areas of special interest at He Kakano. The children have helped Yareev with the construction of sheds and creating rainwater collection systems, along with a tiny hut for overnight stays. For me it has been all about sourcing and planting trees, getting the animals, sorting out the animals' water supply and collecting their manure.

Now, with the pine trees finally harvested earlier this year, it is time to start bringing the native bush back to regenerate the ground and tree cover in the steep valleys and hopefully bring back rich bird and insect life to the paddock. It will be a while before we start producing all our fruits and vegetables, but the trips over the hill every weekend for the past two years have allowed us to set up an efficient rainwater harvesting system and a rich composting system, which will allow us to start diverse vegetable planting soon.



Above: He Kakano is a great place to raise children, helping them to develop their connection to the animal, plant and mineral kingdoms.

Below: The family grows.



# THE BEE *organism*

A group of biodynamic beekeepers in Brazil share their passion for creating better relationships between humans and bees.

By Felipe Mendes, Tomaz Morgado, Martin Cairello, Rafael Agapio, Marcelo Agapio, Claudio Cerca and Nelson Jacomel Junior

Beekeeping in Brazil, as elsewhere, requires special attention. In urban areas, *bien*<sup>1</sup> have lost their natural habitat. In agricultural areas, where bees can still find small islands to nest, there is an uncontrolled use of pesticides that weaken or unbalance many bees, often leading to death. Conscientious beekeepers need to move the *bien* to mountainous regions, where these harmful conditions do not yet exist.

## Bee migrations

*Apis mellifera* were brought from Portugal to Brazil in the 19<sup>th</sup> century by Father Antônio Carneiro because of their high production of wax. The *Melipona* and other bees native to Brazil did not produce enough wax for the missionaries' candles.

In the 1950s, geneticist Dr Warwick Estevam Kerr intended to improve the adaptation and production genetics of bees in Brazil. He imported *Apis mellifera* bee breeds from Africa, as these bees were adapted to conditions similar to the Brazilian climate. These swarms were first installed in experimental apiaries in a controlled environment, with screens to prevent evasion; however, the bees managed to escape.

This 'miscegenation' gave rise to a breed of Africanised *Apis mellifera*, an individual highly adapted to the climatic conditions of Brazil and highly resistant to pests and diseases. For these reasons the new breed was highly productive, surpassing the *bien* from European races. But these bees also presented highly defensive behaviour, which caused accidents during encounters with animals and humans, generating a lot of fear and even panic.

## Biodynamic beekeeping

Biodynamic beekeeping among us has had very interesting results. Alone, in an isolated manner, some beekeepers started using biodynamic methods around 30 years ago. Since 2014 new members have joined with the intention of expanding their studies. We have achieved interesting results toward more respectful ways of interacting with the *bien*. We carry out studies and exchange experiences in regular meetings.

Our motivation is the need to better relate to the *bien*. The products (honey, wax and propolis) of the *bien* are the result of a good relationship. In this relationship, we discover many

ways to interact with the *bien*, including those of Africanised race, who can be docile and loving when treated with respect. We realise how much the *bien* has suffered under conventional beekeeping, and that these results are directly related to management where the *bien* is subjugated to human beings' demands. We notice a big change in this entire process if we meet the *bien* with more respect.

## Innovating hive structures

It has been shown that square hives with movable frames, which limit and shape the combs, keep the *bien* under the scrutiny of the human being in conventional beekeeping. Our group of biodynamic beekeepers is very committed to the wonderful work of creating hives where the *bien* can fully develop – where their natural needs are met and respected. We are experimenting with the *apioca*, the hanging beehive, the hexagonal beehive and the loghive.

The *Apioca* proposal, suggesting the construction of a house for the *bien*, has been presented by Francisco Valenzuela (a biodynamic farmer in Chile) and Nelson Jacomel Junior.



Photos: Nelson Jacomel Junior

Making hollow log beehives as a group.



Carving the entrance.



The completed beehive hangs high in a tree.

This model is accessible to beekeepers with fewer financial resources, as it can be built from materials available within the farm organism: clay, cow dung, straw and palm juice, prepared on a structure of a light material such as bamboo over a large piece of lumber.

We have also experimented with and approved of a hanging model based on Günther Mancke's Weissenseifener Hängekorb, presented at the international conference on biodynamic agriculture in 2014.

The hexagonal hive model has also been the subject of experiments by a Brazilian beekeeper. These modules are stacked vertically, adding the modules underneath, allowing the combs to grow downwards, as happens in nature when the bees have space. The hives do not have moving frames, only rods crossed horizontally to support the combs. Thus, the bees can build their combs in freedom. Honey is harvested by removing the entire upper module, and the honey is obtained by pressing. Within this beehive, the bien can be in its maximum health and vitality, creating resilience and a strengthened group.

The loghive consists of a hollow log with thick walls that maintain an adequate thermal condition (ca. 35°C) inside the nest, even if the weather conditions outside the hive are unfavourable. This initiative by beekeeper Felipe Mendes uses the concept of mimicry, imitating the logs that the bien would find in the forest. This hive also allows a symbiotic interaction with other creatures that inhabit the same hive, and the combs can grow naturally, without the interference of the beekeeper. We have noticed that with these hives, the Africanised bien becomes more docile, due to less stress caused by the human being.

There is increasing interest in the *Melipona* bee. This growth is important for people's education and for the preservation of these bees. However, there is also intensive commercial production of *Melipona* products and swarms. Many 'modern' industrial beekeeping practices are being replicated for these bees, including artificial energy and protein feeding, forced multiplication of swarms, inappropriate nests and other techniques. We must be attentive and careful that these practices do not compromise the health and vitality of the bees, reducing their resilience as has happened with *Apis mellifera*.

At the Brazilian and Latin American conferences on biodynamic agriculture, we form a working group on biodynamic beekeeping, and we bring the most up-to-date information about attention and care for the bien. This initiative has stimulated attention, disseminated information and attracted young people to biodynamic beekeeping. A booklet with the basics of biodynamic beekeeping, which considers the bien, has been produced in a joint project by ABD and ABDSul2, and this is currently available free of charge. Furthermore, we meet in a study group expanding the readings and debates about the bien.

We have started to hold courses and workshops, and we have felt the need to review the current standard approach to beekeeping to meet the bien's real needs. Since November last year, we have been working on the Demeter beekeeping standard, and we are working on a proposal that is under debate. We understand the importance of bees and their role in human evolution, and we want to nurture their freedom and wellbeing as much as possible.

# CHILDREN'S ACTIVITY

## Wand of place

By Amanda Bradley

Photos: Amanda Bradley



Phoenix posing with the wand made by his mum with objects chosen by him.



A wand made with objects found in our backyard.



A wand made with beach materials.

One of the best ways for children to connect to nature is through playful observation. This wand-making activity is wonderful because all ages are able to participate. Whether the child is looking for objects to attach to their wand, or putting the wand together, anyone can get into this activity! This is a great way to make a toy that stimulates the imagination and can be used in a mindful way to connect with the season and place.

Find objects that you feel drawn to, and when you have finished, you will have made a natural toy, or a sculpture that becomes emblematic of the place where it was created. Notice the difference between a wand created in the forest and one created at the beach.

### Materials:

- Yarn or string. This is the only human-made material you need. If you are feeling particularly creative you could make your own string from harakeke fibre or cabbage tree leaves. Experiment with what you have access to!
- Wand-like stick

- Flowers
- Found natural items: shells, rocks, twigs, acorns, etc. (If they have holes to thread the yarn through, all the better.)

Step one: Find a good wand stick.

Step two: Gather objects to attach to the wand.

Step three: Tie on your yarn and start wrapping it around the stick tightly.

Step four: As you progress down the stick, attach leaves and flowers by wrapping the stems around the stick.

Step five: Objects that can be tied on can be added.

Step six: Say thanks to the land for providing you with all you need to make a Wand of Place.

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Tag @biodynamicsnewzealand and use the hashtag #biodynamicsnz on Instagram so we can see and share your creations!

# WORKING WITH THE *Spirit of Place*

Berni Courts explores what it means to learn the language of the local landscape to create a biodynamic ecology

*Berni Courts facilitates the biodynamic gardens and farm at Ruskin Mill College in Gloucestershire, England. The school runs programmes for individuals who require pedagogical support outside of the mainstream education system. Their curriculum provides holistic, practical experiences that allow students to grow their individual capacities and participate in their community. Berni also runs a biodynamic smallholding with his wife Fadia.*

## **Matter and spirit**

It is clear from the outset of the Agriculture lectures that Rudolf Steiner had an intention for the will of humans to activate a new consciousness for the land. Steiner's *Spiritual Foundations for the Renewal of Agriculture* invites those of us engaged in land management and farm production to research the spirit that is both presenting and intangible in our places. Steiner emphasised the theme of matter and spirit existing as symbiotic aspects of the whole. He offered an invitation to humanity to experience matter and spirit unified in our everyday activities.

*Turn to the ancient principle:*

*"Spirit never without matter.*

*Matter never without spirit!"*

*And say to yourselves:*

*We will do everything material in the light of the spirit, and we will seek the light of the spirit in such a way that it enkindles warmth in us for our practical deeds.*

*– Rudolf Steiner, 1919*

## **Observational insights**

How do we come to know a place in its entirety? How do we escape the notion of a materialistic, modernist approach at the outset? Is it similar to building a relationship with another person? I once sat as an observer of a 'goldfish-

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**How do we come to know a place in its entirety? How do we escape the notion of a materialistic, modernist approach at the outset? Is it similar to building a relationship with another person?**

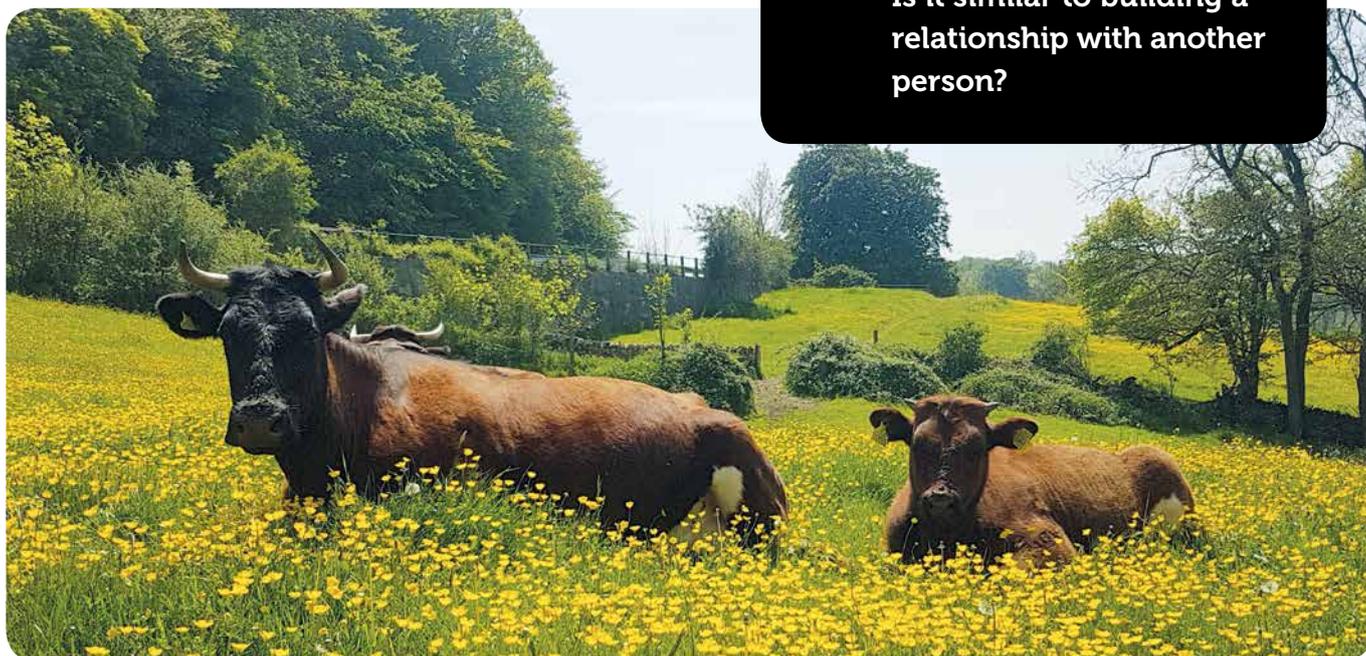


Photo: Berni Courts

Gloucester cattle in the Ruskin Mill pasture.

bowl' conversation among traditional woodland workers and craftspeople, convened as part of academic research on the benefits of woodland activity. The longer-serving members of the team – who coppiced, made charcoal, laid hedges and extracted timber for firewood, planking and crafting – spoke passionately of the woodland being akin to a family member. Such was the depth of interest, understanding and feeling towards the place.

*"On one occasion, staff took part in a group 'goldfish-bowl' discussion where an open question was presented to a group of four participants whilst encircled and observed by other participants. Comments were invited from the observers, which allowed a level of insight to be added."* (Turley and Tomlinson 2013: 24)

The rhythms and ecology of the working woodland engendered an attitude of nurture, whereby the productive quality of the place was a synergy of human service to the land in return for sustainable products. In this woodland example dwells a "shift from the concept of farming, back to the concept of tending the land, or custodianship, with the outcome being, to produce nourishment and contribution to a thriving socio-ecological system" (Hes and Rose 2019: 3).

### Five research questions

Dr Daphne Miller, a family physician who is no stranger to biodynamic methods, interviews Wendell Berry, for her investigative book, *Farmacology*. He tells her the following:

*"You know, those terms 'organic' or 'holistic' you can wear on a T-shirt. But what people are trying to mean by those words is a kind of courtesy or respect, always accompanied by affection. When we make a decent marriage, friendship, or farm, we make a partnership. In such a partnership, we look and listen to what our partner is trying to say back to us. We have a conversation where we are working for a mutual benefit."* (Miller 2013: 20)

At the outset of Dr Miller's research journey into the relationships between health, environment and diet, Berry comments:

*"You always need to 'consult the genius of the place'... You should ask... What was here when you came? What was here before you came? What was here for you to start with? What does nature require of you here? What will nature help you to do here?"* (Miller: 20)

These enquiries require an attitude of reflexivity towards the place and reflectivity upon your own purpose in the place. What is present as an external, physical, tangible, sensory manifestation; what presences as an inner emotional set of reactions and questions.

### An indigenous perspective

Let us consider a First Nation creation cosmology reassembled within the pages of Robin Wall Kimmerer's *Braiding Sweetgrass: Indigenous Wisdom, Scientific*



**"You always need to 'consult the genius of the place'... You should ask... What was here when you came? What was here before you came? What was here for you to start with? What does nature require of you here? What will nature help you to do here?"**  
– Wendell Berry

*Knowledge, and the Teachings of Plants*. In "In the Footsteps of Nanabozho: Becoming Indigenous to Place", the character of Nanabozho, the first human on Turtle Island (North America), encounters his own incarnation from the spiritual world to become a man discovering his purpose on the living Earth. Reflection and reflexivity abound. His experience correlates to any farmer arriving newly on a piece of land, inheriting a resonant past, living in the present, considering an emergent future.

He is the newest arrival on Earth, with the plants and animals well established. Because every phenomenon is new to him, he needs to name them and discover their purpose in the environment. He learns their uses to him. He begins to observe each species' specialism, noting when to emulate nature's innate wisdom.

*"Every being with a gift, every being with a responsibility. He considered his own empty hands."* (Kimmerer 2013: 256)

He needs to be awake in his senses; otherwise he will meet perils he is unable to survive. In this sensory wakefulness, he discovers the dichotomy of the creative and destructive possibilities inherent in the elements and forces of nature. As he experiences time as cyclic, he patiently awaits an invitation or permission from place to continue onwards. To develop himself and his relationship to the Earth,

*"each step is a greeting to Mother Earth... He understood that all the knowledge he needed to live was present in the land."* (Kimmerer 2013: 257)

Steiner, Berry and Kimmerer are recognising the indigeneity of place and the potential wisdom of indigenous resonant knowledge. The suggestion is that this wisdom will guide our activities when we open our senses fully and bring process to the energies present. In essence, it is a process of naturalisation when settling on new ground as agricultural

immigrants. We are asking the land for acceptance, and in return, we offer continuous service.

*"Being naturalized to place means to live as if this is the land that feeds you, as if these are the streams from which you drink, that build your body and fill your spirit. To become naturalized is to know that your ancestors lie in this ground. Here you will give your gifts and meet your responsibilities."* (Kimmerer: 261)

### **The phenomenological stream**

Indigenous wisdom by default is ancient, but there is a Western stream that we can follow, which Steiner may have had in mind. In classical Greece, 300 BC, Aristotle wrote *Peri Hermeneias*, translated as *On Interpretation*. The research method of hermeneutics has its root in the word *hermeneias*, meaning interpret, translate, express (Bingham, 2010: 63). The relevance in this Aristotelian root is around knowledge arising from conversation or experience. If we are going to consult with the genius of the place, we are going to have a conversation with the location and involve a group of associates in a process of phenomenological research. In this process, writes Bingham, "We are seeking the to and fro of dialogue and rely less on knowledge transmission" (2010: 67).

The involvement of a group in phenomenological study brings a rigour to any research findings. It is the difference between eating a meal by yourself and sharing a feast with others. It automatically precludes a one-sidedness, a dominant worldview or an investigation similar to an interrogation. A floodlight casts a glow across the whole domain. Using a direct spotlight to illuminate the details is required later in the enquiry. True to the spirit of most farmers I know, the group method eliminates the idea of expensive consultants, and relies on the innate knowledge and skills of the stakeholders connected to the project. Isis Brook (1998) confirms the efficacy of a group phenomenological process, adapting the term "intersubjective verification" from an earlier study by David Seamon (1987) on behaviour in environmental research.

*"The group sharing in this style of research is similar to the phenomenological technique of intersubjective verification where generalisations about a phenomenon are uncovered through sharing individual experiences."* (Brook 1998: 16)

As a group encounters the phenomenon, each individual converses with the object inwardly, forming impressions, imaginations and emotive responses. The sharing of these experiences acts as a verification of the data collected. When the qualitative experience of the individualities is common to the participants, this helps to bring knowledge and understanding, often catalysing further research into the phenomenon. The vital aspect is the conversation. No one is isolated, as non-aligned experiences are phenomena in themselves. They promote further research into the reason for their occurrence. The shared opinions afford a deepening and a breadth of meaning to the research. Goethe himself subscribes to the significance of conversation as invaluable in its ability to enliven a situation.

*"What is more glorious than Gold? Light.  
What is more quickening than light?  
Conversation!"*

– Goethe, *The Green Snake and the Beautiful Lily*

What Goethe brought to the phenomenological principle is pertinent to Steiner's agricultural concepts of the farm organism and the farm individuality. Goethe observed gestures within the constant metamorphosis and interactions of natural phenomena. He saw that organisms do not rest but transform, renew and evolve through a cycle of emergent gestures. This is the story of every biodynamic farm. There is an observable story, a narrative subsequently told but not seeking to reduce everything to cause and effect. This other holistic narrative portrays the presence and expressions of phenomena so that qualities can be ascertained. They are brought together in an ontological relationship that promotes transformation and renewal because as humans we can sense inwardly how phenomena affect us qualitatively.

We can intuit and imagine a wholeness in a place by reading and speaking the language of individualised connections to the whole. We have the word 'vernacular', which carries a dual meaning: our localised language, and the use of natural materials that depict the character of a place or buildings in the place. This dual meaning becomes very pertinent when we consider Steiner's aspiration for the self-generating farm organism.

*"A healthy farm would be one that could produce everything that it needs from within itself... if we want to organise things appropriately, we must still realise how necessary it is for a farm to be self-contained."* (Steiner 1993: 27)

### **The genius loci study as developed in Ruskin Mill Trust**

Our visions and work for the land are dependent on us knowing what is there and what can become of it. The Goethean observation process of a 'genius loci' (spirit of place) study is an ideal process for revealing the history, currency and potential of the place.

The educational methods of Ruskin Mill Trust offer current and successful examples of place-based education. At each of the trust's 12 sites across the UK, each place employs biodynamic agriculture in the education and development of schoolchildren, college students and employees. However, the signature of each site is different, because the geology, the flora and fauna and the human cultural history in each region reflect local diversity.

The site of Ruskin Mill College in the Cotswold market town of Nailsworth offers an example of successful work with genius loci. A case study of this site follows below.

### **The mineral world**

A geological study of the oolitic limestone gives us insights into how these oolitic sedimentary, oceanic deposits were made in the evolution of the location. The V-shaped valleys

are the result of glacial melt water, which churned the sediment and pushed it to the top of the Cotswold Hills at the end of the ice age. The free-draining terrain allows water to run freely off the hills and through the valleys, contained by a layer of blue lias clay which defines the hues and tones of a landscape by forming rocky outcrops and by providing materials for boundary walls and buildings.

The local flora and fauna are particular to the local minerals in the soil. These features create a unique identity and atmosphere, which promotes a harmonious sense of belonging in a place. Here are seams of Fuller's earth on the valley sides. These hills are the first high ground that the prevailing westerly wind encounters, blowing off the Atlantic and the Bristol Channel. The calcium carbonate limestone rock underlies a thin and low-fertility soil. As human beings, we can experience how the rocks, water and air interact to define the hues and tones of a landscape. The local flora and fauna are particular to the local minerals in the soil. These features create a unique identity and atmosphere, which promotes a sense of belonging in a place.

### Plant life

The limestone soil gives rise to hazel, beech, ash and horse chestnut as the indigenous local trees. There are thickly wooded valleys, but on the windswept hilltops, there are clearings where early tribal settlements were established. The grassland is low-fertility but diverse and rich in herbs and wildflowers, including several rare orchids. There is an overall blending of the light greens and yellowing of the local flora on the gentle, undulating hills, where rivers and brooks create boundaries in the valley. The woodlands shade hidden valleys, offering a feminine gesture of shelter and refuge.

### Animal activity

A study of the local wildlife reveals an array of indigenous creatures. Foxes, badgers, polecats, roe deer, otters, toads, newts, horseshoe bats – the diversity is wide and deep. All of these are regular in the landscape of the college. In terms of introducing animals to the farm, the college has been mindful of the history of wool and sheep synonymous with

Credit: Berni Courts



The four kingdoms of nature contribute to the spirit of a place.



**The interconnectedness of the fleece goes from the sheep on the pasture on the lime, into the hands of students, bringing a circular curriculum experience that resounds with authenticity of place.**

the Cotswolds, as well as of course the Gloucester Old Spots pig and Old Gloucester cattle. Investigation into the history of sheep in the locality reveals a rich set of narratives that explain the wealth of the area and the development of craft and industry revolving around the production of wool.

### Human activity

When humans are involved, it becomes complex. At Ruskin Mill, we work with complex human needs in an education method that offers work on the biodynamic farm and craft with local materials. The world-renowned Stroud Scarlet cloth was produced in these valleys from the wool of Cotswold sheep. In the Horsley Valley, the college has regenerated the old wool mills to support specialist education, and generated a curriculum that reflects the history of possible enterprises.

On the college farm, there is an interconnectedness in the sheep that the students rear and shear for their fleece. This raw material honours both the renaissance of the wool trade and the hardship of the endeavours of the cottage weavers who toiled in the valleys. The interconnectedness of the fleece goes from the sheep on the pasture on the lime, into the hands of students, bringing a circular curriculum experience that resounds with authenticity of place. The genius loci, spirit of place, has given permission to perform shepherding, felting and weaving. The widening of the craft into making plant dyes for the wool conjoins mineral, plant, animal and human worlds in an embodied, conscious experience.

We describe this as a descent into matter, which encapsulates both the genius loci process and the performance of bringing the realms of nature together and then putting them into service. There are also crafts from the mineral realm, such as blacksmithing and pottery, plus crafts from the plant kingdom, such as willow work and green woodwork. Across Ruskin Mill Trust, this process produces local versions of the same technique, whether in Sheffield, Pembrokeshire or Stourbridge.

### Concluding thoughts

Dr Julia Wright, at the 2021 Real Oxford Farming Conference, delivered a presentation entitled *Subtle Agroecologies*:

Wendell Berry	Nanabozho	Isis Brook	Ruskin Mill	Julia Wright
Five questions	Indigenous wisdom	Goethean process	Filling the vessel	Modernist paradigm
What was here when you came?	A world that was already ancient	Connections between phenomena	The potential for regeneration in a place that previously thrived	Striving for increased productivity
What was here before you?	The plants and the animals	The potential of using sensual and emotional awareness to experience phenomena as fully as possible	A signature/ vernacular craft or product	A repetitive and linear perspective
What was here for you to start with?	The observable specialisms of each living species; time as a cycle	Time and space to observe with patience and rigour	The mineral, plant and animal domains, plus a human socio-economic history.	Domination over nature
What does nature require of you here?	"Each step is a greeting to Mother Earth."	Acknowledging an ethical dimension to the practice of science	Ask permission to perform actions in the place following observational insights	Life reduced to component parts
How will nature help you here?	"All the knowledge that he required to live, was present in the land."	Deepening a sense of wonder toward the world	Providing sustainable materials and processes for agriculture and craft	Secular materialism

*Farming with the Hidden Half of Nature.* In her comparison of an indigenous paradigm with a modernist paradigm, she reveals how the reductionist outcomes of modern agriculture and thinking do not support circular systems or ways of knowing place, other than for economic return. Above is a comparison of four frameworks that employ a process of genius loci, seen through the lens of questions offered by Wendell Berry.

The whole Agriculture Course is an assemblage of the considerations we need to bring to our places when we are working there. In the genius loci process, the farmers and the location can enter a generative conversation, with the farmers taking note consciously of the words, the feelings and the gestures that emanate from the dialogue. No matter without spirit; no spirit without matter. Genius loci reverberates as a concept which supports the spiritual renewal of agriculture. ■

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# A NEW BIODYNAMIC GROUP *flourishes*

Florian Roger reports on a new impulse of biodynamic community activity in Hawke's Bay

*Florian Roger, originally from Brittany in France, travelled around the world for a few years seeking for a meaningful life. He has an interest in anthroposophy and has found a deep new interest in biodynamics. He is currently facilitating the local biodynamic group in Hawke's Bay and is grateful to have found a promising and supportive community united around a higher purpose.*

*"The future needs more active farmers and gardeners who consciously create an attitude of responsibility within themselves so that they become guardians of the soil and true friends of nature."* – Heinz Grotzke, inspired by Rudolf Steiner

Biodynamics in Hawke's Bay has seen a tremendous surge over the years, making this region a centre of biodynamic activity. Many projects and initiatives have seen the light, including biodynamic farms at Hōhepa Clive and Poraiti, more biodynamic farmers across the region, introductory biodynamic courses at Taruna College and biodynamic conferences.

Some long-term local members of Biodynamics New Zealand have had the opportunity to work overseas and help biodynamics blossom, whether it was in India, China, Indonesia or the Philippines. Time has passed, though, and while the foundation of the biodynamic community is still deeply impregnated in Hawke's Bay, the emergence of a younger generation to carry on the momentum is still in process.

Fortunately, having many experienced people here in Hawke's Bay means we have a group that is continuing the valuable biodynamic work and laying the groundwork for a new beginning, a fresh impulse.

## How did the current group start?

In 2019, Chris Hull, who has been making and providing the biodynamic preparations to Biodynamics New Zealand for over 30 years (including some years working alongside students from the Taruna College biodynamic course), announced that he would retire in one to two years' time.

The chair of the Biodynamics New Zealand Council at the time, Hannah Tatton, had organised for Chris to teach at a biodynamic preparation-making workshop, which unfortunately never happened due to the first Covid lockdown in 2020.

Next, Su Hoskin organised a local hui in August 2020 to find out what was in people's minds and hearts and to see if relationships could be revitalised. This was a positive gathering, bringing many people together; issues were discussed though no outcomes were realised. Further to this,



Credit for all photos: Florian Roger

Making cow pat pit at the vineyard that Amy Farnsworth manages.



Applying tree paste at Andrew Seager's farm.

a decisive meeting was organised at the Christeller Room at Hōhepa Poraiti in November 2020. People were interested in helping Chris to make the biodynamic preparations, along with interest in participating in courses or simply being part of an active regional group. The outcome was positive; Gui Vilhena and Gui Barreto, the dear Brazilian GuiGuis, offered to manage meetings to meet more regularly. This allowed this new foundation to ferment, while the group remained welcoming to anyone having an interest in helping biodynamics move forward.

Since then, the group has been growing and evolving. A strong cluster has regularly met to support Chris Hull in creating the preparations, as Chris had recognised the need to move towards a group effort rather than continuing dependence on just one person.

This is only the beginning of a deeper and wonderful story. This is how hope has found its way through. This is how dedicated people, striving for a common higher purpose, are bringing a new light to biodynamics.

### What happened next?

There was now a sturdy foundational group of devoted people striving for the welfare of the land and its living beings. From November onwards, the group started to meet every three to four weeks at the Christeller Room, sometimes catching up and discussing the way forward, and other times assisting Chris Hull to make the preparations. Gui Vilhena stepped forward to hold the communication and organisation



**It may be time for a new impulse, a new beginning to bring forth exemplary values, principles and dedication like the older members of Biodynamics New Zealand once did.**

of the group, which helped to bring everyone together. This structure brought in warmth, life and new responsibilities around maintaining the making of the biodynamic preparations. As time moved on, a few more people joined and embraced the activities.

Around March 2021, Gui Vilhena decided to pass on the facilitation of the group, and as a young person from the group, I decided to give it a go and to step forward. The group still carried on making different preparations, including cow pat pit and the preparations 500 through 507. The group prepared tree paste with 508 when required.

The table on the following page (pp.26) shows an overview of the preparations being made.

The preparation 504 matured in buried clay cylinders, coming out very soft and nicely decomposed. The cow pat pit (CPP) matured in half-buried barrels, with the CPP covered by hessian sacks.

<i>Preparation</i>	<i>Prepared/put in</i>	<i>Element</i>	<i>Benefits</i>
500	Cow horn	Calcium	Brings fertility
501	Cow horn	Calcium-silica	Brings ripening
502	Stag bladder	Selenium-potassium	Gets process going
503	Cow/sheep intestine	Nitrogen-calcium	Regulates nitrogen
504	Porous sheath	Iron-magnesium	Rhythm and balance
505	Animal skull	Calcium-phosphorus	Resistance to fungi
506	Cow mesentery	Silica-potassium	Brings wisdom through distribution
507	Jar with water	Phosphorus-magnesium	Holds the forces in
508	Dried, used in tree paste	Silica	Protection from fungi and insects
<b>Cow pat pit</b>	Rock dust, egg shells	All (502-507)	All (502-507)

Triumphantly, the group has successfully made all of the preparations. This came as a real relief and gave the group more time to come up with options to take over Chris' activities. Also, the group still longs to meet and to spread the biodynamic values, principles and the freshly made preparations. We live from what we get, and we build up ourselves from what we give. Here the story grows, as the group started to get out of the Christeller Room to the public.

### The vision

As the group was growing well, we had a meeting in August to discuss the medium to long-term future of the group.

First of all, the group had to split into two entities:

- First entity: The strong biodynamic cluster. To acknowledge and respect the purpose of the formation of the group, this cluster will be making the preparations alongside Chris Hull and will be going to the field gatherings.
- Second entity: The public, which will solely be going to the field gatherings.

We will take a break over the summer to refresh and reinvigorate.

There are visions of joining an existing trust or becoming our own (with the potential help of the Kete Ora Trust), and other ideas include reimplementing a biodynamic consultancy board, setting up more workshops, reviving the biodynamic course at Taruna College and ultimately organising a conference.

It may be time for a new impulse, a new beginning to bring forth exemplary values, principles and dedication like the older members of Biodynamics New Zealand once did. The demand has grown for sustainable and organic lifestyles. Obviously a new and growing opportunity has turned up for biodynamics.



Compost analysis and reinsertion of biodynamic preps at JJ's Organics.



The group makes up preparations 503 and 506 together.



Compost making at Ben Cichon's place, May 2021.

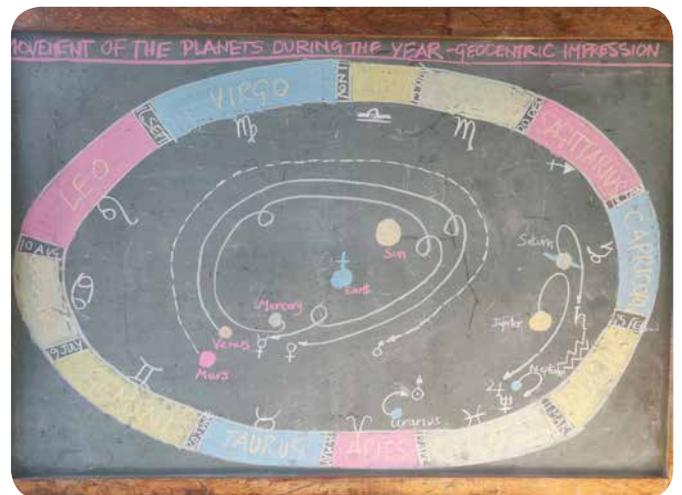


A diagram illustrating the sheaths of the biodynamic preparations.

### What is currently happening?

Resolute with fresh experience and a steadfast group, the common vision has enlarged, especially due to some new members expressing an interest in having the group come to their lands to set up or enhance biodynamic practices.

After a short and quick deliberation, the group went off on our first biodynamic adventure to Ben and Krissie Cichon's



Chalk diagram illustrating the movement of the planets through the constellations.

property. Highly motivated, Margaret-Mary Farr offered an art workshop based on the 500 before the 500 was applied. Over 10 people attended, delicately painting a seed in its etheric environment, using the three primary colours. Then, with everyone both physically and spiritually prepared, the next missions were to make a biodynamic compost and to spread 500 on the whole property, with the group bringing experience, the set of biodynamic preparations and enthusiasm.

It was a success. It was a real success. People enjoyed and embraced this first experience. Rachel Pomeroy narrated verses, and a nice shared afternoon tea occurred during the stirring of the 500. It was a collective effort! It was a full-on day, yet the group's determination and passion carried us through. The event was the first of its kind this year, and was the beginning of a deep and wonderful journey which still carries on at the time this article is being published.

Next, the group went to Smith and Sheth Vineyard, managed by Amy Farnsworth (alongside Greg Allinson), who are



Stirring at Ben Cichon's place, May 2021.

wishing to convert from conventional to biodynamic standards, which will be the first vineyard in Hawke's Bay to journey into biodynamics. Hans and Ineke Mulder stepped in to lay this new foundation through an introductory speech. Then the group spread 500 alongside Chris Hull, and prepared a 508 tree paste alongside Gui Vilhena and Andrew Seager. Over 20 people were present that day. Chris Hull brought the biodynamic preparations.

The group returned to Ben and Krissie Cichon's property to turn the compost with the help of Jen Speedy. Later on, we went to JJ's Organics (Janet Chambers and Judy Moss), who have been organically growing fruits and veges for 30 years, to analyse different composts at different stages, along with a bonfire and an inspirational Father Christmas story linked to the biodynamic preparations by Rachel Pomeroy. Then the group went to Andrew Seager's (and Christine Hauenstein's) farm, Demeter-certified for over 20 years, and heard about what it means to be Demeter-certified. Following this talk, people applied some 508 tree paste on Andrew's apple trees which had been pruned.

The organisation has ultimately refined its gatherings as a threefold: having a presentation, having an activity and having a treat. Could it be the threefold of biodynamics – responsibility, activity and sociability – consequently nurturing a sustainable lifestyle?

The group is responsive to members and their questions and requirements, which enables the group and its activities to keep on growing. This journey has been built through people coming to us, through people's feedback, and through people's passion, attention and love of their lands.

The group is still going strong, meeting every three to four weeks to foster, support and nurture people and the land through biodynamics. Each gathering brings its own impulse, special character and magic through delegated responsibilities, versatile activities and a social aspect. The

purpose of the group is to support people in their journey, to support the lands as nature has provided, and also, through biodynamics, to enable the spirit to flow, nurturing and encompassing each realm, uniting the farm as one whole entity.

The community is wholeheartedly thankful to everyone for their support, time and input. It has been a deep journey; the feedback we have received has been ample and positive. Let us together endeavour to develop as free human beings who are able to impart purpose and direction to their lives – for people, for the lands, for anthroposophy.

.....  
*"That which secures life from exhaustion lies in the unseen world, deep at the roots of things."*

– Rudolf Steiner ■



Gathering on the vineyard that Amy Farnsworth manages to begin the journey of transitioning it from using conventional farming methods to biodynamics on the 7<sup>th</sup> of June, the same day Rudolf Steiner gave his first biodynamic lecture.

# MAKING 500 FOR ALL OF AOTEAROA

By Florian Roger

On Saturday, the 17<sup>th</sup> of April 2021, the Hawke's Bay biodynamic group, alongside local farmers and families, buried cow horns for the biodynamic preparation 500 at Hōhepa Poraiti.

Highly motivated, our members and visitors gathered around 9 am on a Saturday morning at Hōhepa Poraiti to prepare enough BD500 for the whole country. This was led by Chris Hull, who has been preparing and providing all of the biodynamic preparations to Biodynamics New Zealand for over 30 years.

Chris had prepared the ground with staff and residents from Hōhepa. He also shared about a wonderful recycled sausage filler which we would use for our purpose here.

Making preparation 500 requires:

- Cow horns
- Fresh cow dung
- A topsoil patch where the horns can be buried in the autumn (16-18 inches down).

Close to 20 people showed up throughout the day, eager to help out and be part of this adventure. People helped in versatile ways: sieving the grass out of the cow dung so as not to obstruct the sausage filler machine; filling the horns with manure; and burying the filled up horns with their tips sticking upright.

With stained hands, fresh smells, lovely smiles and laughs, people enthusiastically spent the whole morning preparing and burying over a thousand horns. It was a comforting and warm gathering where discussions of passions and dedication arose.

People brought apples, kumara and feijoas to share as part of an early afternoon tea and meeting after the activity.

What does BD500 do?

The biodynamic preparation 500 stimulates calcium and nitrogen relationships to foster abundant and balanced life in the soil. It is the basis for soil fertility, and for the renewal of degraded soils.

The application of preparation 500 proceeds as follows:

- It is sprayed up to four times a year. The best times are in October and November and then again in February and March. It is important to apply it in the late afternoon.
- It is used in small quantities at a rate of 25 grams in 13 litres of water per acre.
- It is stirred for one hour, making a vortex or crater while stirring in one direction and then reversing the direction of the stir and making a vortex in the other direction.

- Preparation 500 is sprayed at the descending phase of the moon.



Chris Hull fills up the horns with the sieved cow dung through the clever reuse of a sausage filler, while other members participate in the assembly line.



The team reaches the end stage of burying enough cow horns to make enough 500 for the whole country.

# Stirring AT TE RĀ

By Amanda Bradley

Biodynamic gardening has been a staple practice at Te Rā School in Raumati South since the school's formation. So it was nice to gather as a small group during Organic Week in September to learn how to do a 500 stir. Mark Howell retired as the gardening teacher at the beginning of 2021, and many of us were eager to learn from him so that we could carry on this impulse as a school community.

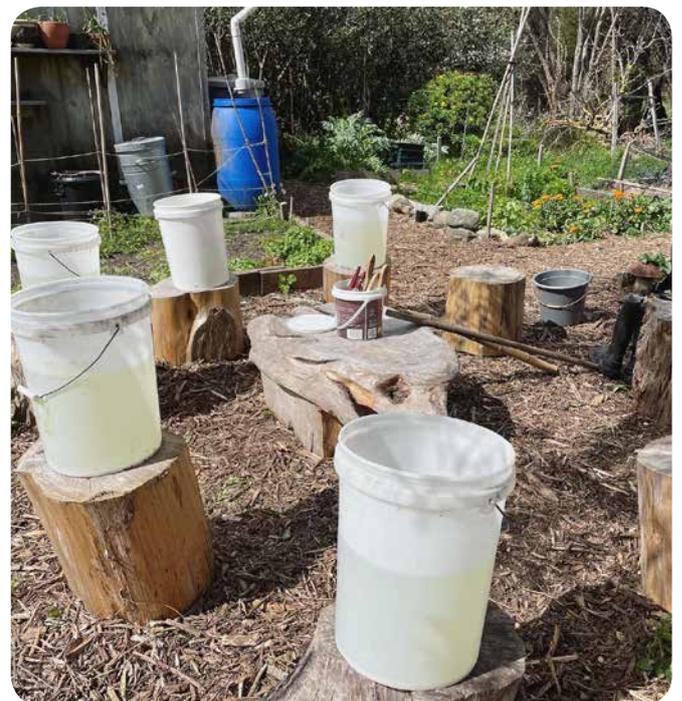
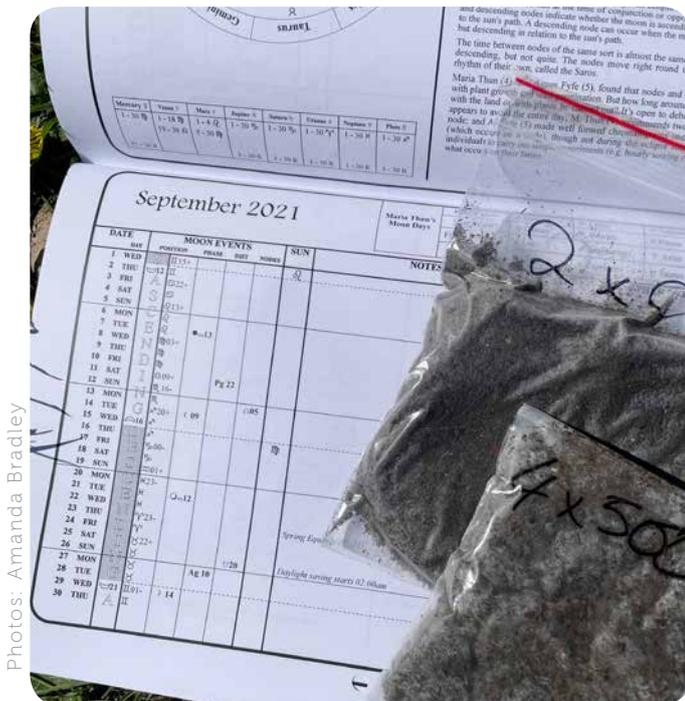
It was a beautiful spring day. We were lucky, as days on either side were wet and stormy. A flock of parakeets and tui flew over us as we prepared the rainwater and set it out to warm in the sun before the group arrived.

We began by listening to Mark share with us the reason for doing these stirs at this time. He showed us how much of the 500 preparation we would need per bucket. We each received a portion, crumbled it into our sun-warmed water and began to stir. First we stirred one way around the outside of the bucket, then we moved the stick closer to the middle and stirred vigorously to create the funnel. We enjoyed the moment where the sticks were removed and we could watch the swirling water before plunging the stick in once more to disrupt the motion and stir in the opposite direction, enlivening the water. Parents and children participated,

“In an age where we are separated from each other and the Earth in many ways, these kinds of experiences feel like a healing balm to the increasing disconnection.”

although most of the children drifted off to play while we stirred for the entire hour. In the last 10 minutes we added a portion of cow pat pit to the mixture and observed how it changed the water.

We split into groups, each with a small amount of the mixture to whisk over sections of the school property and the land across the road at the Te Rā parent carpark, where students had previously planted native trees. As the group came back together, we finished with a verse and a song, and there was



Biodynamic calendar and preps ready to take to the stir.

Rainwater warming in the sun.

Photos: Amanda Bradley

an uplifting and connective energy present. Not only did we perform an act that was of benefit to the Earth, but we experienced connection with one another. There was plenty of mixture for everyone to take home for their own gardens. Mark advised we put it out within the hour, so we said our quick goodbyes and went to whisk it out over our own properties.

In an age where we are separated from each other and the Earth in many ways, these kinds of experiences feel like a healing balm to the increasing disconnection. It can be easy for these practices, when held by one particular person, to be lost as time moves on. This stir felt like a passing of the baton in a way, in which a new group of parents took on the mantle of keeping biodynamic practices going at Te Rā School.



Mark Howell showing us how it's done.



Adding cow pat pit to the 500 in the last 10 minutes.



Veronika Munro spreading the 500 over the kindergarten plants.

# SPRING STIRRING IN THE KAUAERANGA VALLEY

*Linley Edmeads shares her experience participating in a group 500 stir near Thames, Coromandel*

On Sunday, 26<sup>th</sup> September, a small group of local gardeners and growers shared the start of a biodynamic adventure.

The get-together was organised by favourite biodynamic practitioners Peter and Gill Bacchus. We were privileged to meet at the amazing organic property of Nancy, Eric, Sarah and Tom, up a winding road, next to the Kauaeranga River. Carry on and you'll arrive at the DOC information centre and can explore many tracks and crossings along the valley.

About a dozen of us arrived with buckets and brushes, sticks of varied sizes and shapes and a huge amount of enthusiasm to celebrate and stir preparation 500.

Most of us had not met each other, and it was a time of getting to know each other and sharing. Peter brought the preparation and set things up so that we could get stuck in with our stirring and experience the joy of energised water and microbes. The children also contributed, watching the spirals of vortex and having fun.

For me it was a few hours of peace, learning and enjoying the life given by the whenua. And we all left with buckets full to the brim of preparation 500 to spread over our land, plants and trees and to offer to Papatūānuku.

Bottom: The group gathers before the stir, a great time to meet new people before the stir begins.

Below: Stirring together, enjoying the peace that comes from this process.



Photos: Linley Edmeads

# Stirring up community

## HOW TO RUN A BIODYNAMIC WORKSHOP

By Su Hoskin

*Su Hoskin, who until recently served as education coordinator for Biodynamics New Zealand, encourages members to maintain a strong sense of connection and biodynamic vision so that future generations will benefit, and so that budding new trainers can blossom. Through educational programmes and community opportunities, biodynamics gains the momentum it deserves in these uncertain and challenging times. In her 'How To' series, Su invites members to help spread awareness of the movement to create resilience in our communities.*

You don't have to be a tutor to share your experience and knowledge. Enthusiasm, passion and teaching by example go a long way. Community events and simple projects can be run by an individual or a group of individuals working together without any formal structure.

This could be as easy as an email message to friends, a handwritten invite or a poster on your local community board. There are lots of social media pages that allow educational events to be advertised and possibly attract a wider audience (which you may or may not want). If you don't have a regional biodynamic group to tap into, seek out gardening enthusiasts by leaving fliers at garden centres, organic stores, schools and youth groups.

Biodynamics New Zealand can advertise your workshop in the FiveHundredFootnote newsletter and on their website. Contact the office: [secretary@biodynamic.org.nz](mailto:secretary@biodynamic.org.nz).

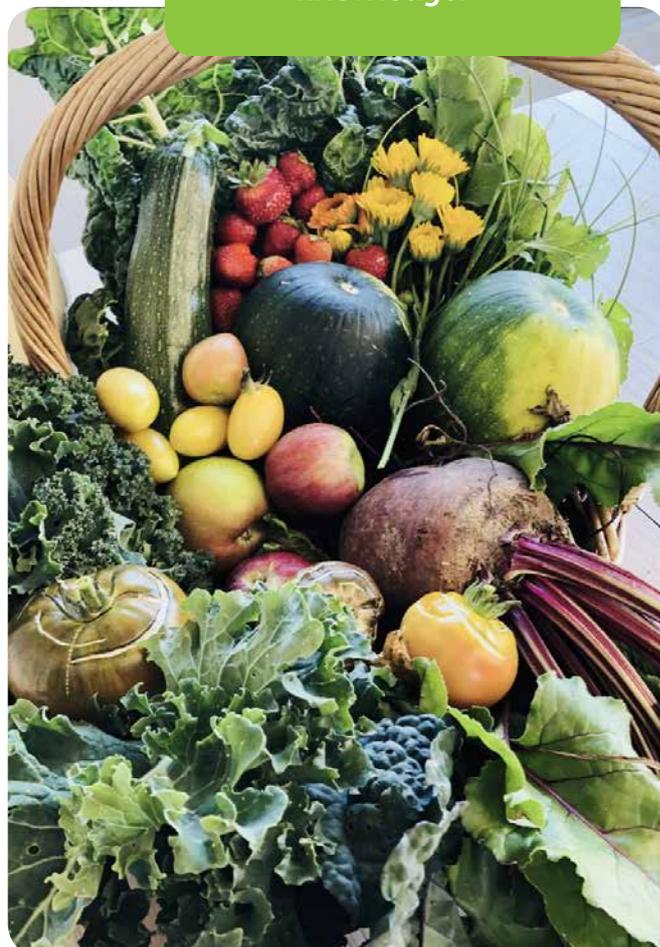
If it is your first time holding an event, think about keeping it small and simple with a theme that you're comfortable with.

### Planning a workshop

The first task is to decide on a theme or subjects for your event. You could choose one or a combination of the examples below depending on your circumstances, what you feel confident demonstrating and what you hope to achieve.

- Biodynamic stir and spread. (See below for tips on stirring as a fun opportunity to gather, share and celebrate, especially around seasonal festivals. Inviting others to join means you get a lot more of your land covered with the field preparation!)
- Biodynamics 101 – introduction and overview
- Making barrel compost (cow pat pit) – hands-on practical
- Introduction to the biodynamic calendar
- Compost making

“ You don't have to be a tutor to share your experience and knowledge.”



Beautiful biodynamic produce.

Photos: Su Hoskin



Stirring or dynamising the preparation for a full hour is a wonderful activity for a group or family.

Many biodynamic events are inclusive for all ages. Have a think about how you can get the next generation involved and engaged.

- Burying horns, preparation making
- Liquid manures
- Tree paste.

Below is a list of things to consider when planning your event.

- Prepare a brief description of the event.
- Set a date and time. Check your biodynamic calendar for an auspicious day that relates to your theme if possible. Allow at least a month to promote and prepare.
- Formulate a brief person specification for who you want to attract – those who are interested in gardening and farming, and the type of people you think will benefit most from attending.
- Compile a mailing list.
- Create your event description with the address and your contact details. There are several ways to create an event online, but if you prefer to be contacted directly, include a 'registrations essential' notice or an RSVP by a certain date. Decide whether you want to limit numbers to keep it manageable.
- Include any guidelines, e.g. children and dogs welcome or paper bag lunch.
- Advertise widely about six weeks in advance and keep a clear record of registrations. For a more impromptu workshop or if you already have a team of people interested, one or two weeks' notice is usually sufficient.
- Recruit a volunteer or two; these could be members of your family or friends.
- Make a list of resources you'll need to run your workshop. For example: stirring equipment; organic materials for compost; tools – pitch forks, wheelbarrow, etc.; materials for cow pat pit – cow manure, rock dust, egg shells, compost preparations. Order preparations in advance with a Biodynamics New Zealand members' pack to include *Harvests* magazines and introductory brochures with membership forms. Hot water urn, cups, chairs, whiteboard, food and drinks, etc.
- Think about any catering needs. If you plan to offer refreshments or a light lunch, remember some of your guests may have dietary requirements.
- If you are fundraising or charging for your time, decide on a suitable price or suggested donation to at least cover your costs.
- Invite a guest speaker if you're not comfortable with presenting the first time around. Considerations include: Availability. Do they charge for their time? Will you cover their transport costs? Is there a particular topic they could bring?
- If necessary, seek funding. You can apply to local council bodies or the Kete Ora Trust for funding educational activities. You'll be prompted to fill out some forms, including a budget, to show that the funders' criteria will be met. A future edition of *Harvests* will share for tips on how to manage larger events and conferences. For a small event, it's easier to aim to keep costs to a minimum.
- Ten days to one week out, contact guests with a reminder confirmation and an invitation to bring any necessary items, e.g. sun hat, own lunch, a plate to share, drinking vessel, etc.
- Determine who will welcome your guests with a meet and greet. This helps keep you from getting distracted and allows you to be ready to start on time, so, if possible,

delegate this role to another. Children can be great at this too.

- Creating a run sheet for the day will help keep you on track. It can also be printed off and handed out to attendees, caterers, speakers, etc.

### On the day

Start with an overview of where your journey into biodynamics began, where you are now and why it is important to you. Mention that you are a member of Biodynamics New Zealand, and have some *Harvests* magazines and information booklets to hand out; these can be requested by contacting the office.

Jot down some bullet points covering what information you intend to share, and keep that along with the run sheet on a clipboard close at hand to help you stay on track.

You might like to have your favourite biodynamic books on display or any other props on a table or bench.

You could end the day with a social celebration. A potluck meal strengthens social relationships and is grounding.

Nutritious food and friendship go hand in hand towards wellbeing.

If you intend to run more events, at the end of the event, ask for feedback to help guide you next time. You may create and hand out a short questionnaire or evaluation form specific to your event.

Examples of evaluation questions you might like to include:

- Which district are you from?
- How did you hear about the event?
- What is your interest or what stage are you at in biodynamics?
- What would you like to hear more about after the workshop?
- What did you especially like about the workshop?
- What in the workshop did not meet your expectations?
- Would you like to be kept informed about future events?
- Other comments.
- Space for contact details.

### SAMPLE PROGRAMME RUNSHEET

Date/time	Who/what	Location	Step	Resources
8.30 am	Neighbour's children	Our farm	Arrivals	Parking signs, directions to house
9.00 am	Facilitator/volunteers	Garden gate	Meet and greet	Registration, name badges, handouts
9.15 am	Facilitator	Front lawn	Verse, movement, singing	Align group focus
9.25 am	All	Conservatory	Introductions	Chairs, benches in semi-circle
9.30 am	Facilitator		Housekeeping, Overview of day	Bathrooms, emergency information, photos – permission to share
9.45 am	Facilitator or guest speaker	Marquee	Discussion or presentation Q & A	White board, easel
11.00 am	All	Barn	Morning tea	Trestle tables and cloths, baking, hot water urn, cups, tea, coffee, milk, honey, serviettes, compost/rubbish bins, etc.
11.30 am	Facilitator or guest speaker	Paddock	Discussion or presentation Q & A	Farm map, soil tests
12.30 pm	All	Farm	Farm tour	Beware rabbit holes
1.30 pm	Lunch	Conservatory	Catered / shared / BYO	Seating on deck
2.30 pm	All	Potting shed	Transfer warm water to barrel	Gas heater, large pan, rainwater
3.00 pm	All	Tractor shed	Stirring 500	Buckets, stirring sticks, brushes, preparation 500, CPP
4.00 pm	All	Garden, paddock and orchard	Spreading 500	Fill bottles for takeaways
4.30 pm	Facilitator	Deck	Afternoon refreshments	Homemade juice, seedling swap
5.00 pm	All	Front lawn	Thank yous, verse, farewells	Pack down

Continued... (by Su Hoskin)

## HOLDING A STIRRING EVENT

A great first workshop to hold is a biodynamic stir and spread.

Below is an outline of information that you could share. You can add your own notes too for discussions.

Horn manure preparation 500 is a manure concentrate. Fresh cow manure, buried in cow horns in fertile soil through the autumn and winter, is transformed into a potent conditioner for soil and plants. It is applied in spring and autumn. It is a living substance which helps build soil structure, stimulates microbial activity, stimulates the formation of humus and greatly improves the absorption and retention of water in the soil.

Used as part of a regular practice, preparation 500 regulates acidity, stimulates the growth of root systems to greater depths, increases the germination rate of seeds and helps to dissolve hard pans.

Stirring or dynamising the preparation for a full hour is a wonderful activity for a group or family but can also be achieved by one person.

### Timing

The descending moon period is the time to apply 500. Utilise the drawing-down phase of the afternoon and evening to stir and apply. Optimal timing is at the change of seasons, at least twice a year, in spring and autumn.

Strange as it may seem, the soil life awakens in the autumn, in order to receive dying plant matter and replenish from the growing season. The Earth inhales during this time in a rhythmic process, so compost, liquid manures and barrel compost are also of great benefit if applied now to the land.

The dynamic interaction between the preparation and the water can be done in clean separate small buckets or in a larger container such as a wine barrel, copper tub or plastic drum. Individual buckets can be stirred using your hand or a stick or wooden spoon. A larger vessel will require more effort and therefore a suspended pole is recommended, either on a



A 500 stir in action at a community spring stir event.

tripod over the barrel or attached to a frame or roof beam of an outdoor building.

Water quality is of the essence. Use rainwater, spring water, river/stream water or bore water if possible. If using treated water, leave to rest overnight to release gases. Consider the environment where the water is gathered from. Rain is highly energised. Warm water to blood temperature. This will activate the biology to a greater degree than cold water.



**Stirring or dynamising the preparation for a full hour is a wonderful activity for a group or family**

It's a good idea to time yourself; you'll be surprised how quickly an hour passes during this meditative and stimulating activity.

Use 50 to 100 grams of the horn manure preparation in about 30-60 litres of water per hectare.

Stir from the outside of the container inward and clockwise until all the liquid is surging in one direction. Then break the flow to create 'chaos' by reversing the stirring action anticlockwise. Opening the surface area of the water allows aeration and other energetic forces to enter.

Repeat for a whole hour. The vortex created in the middle of the water will become stronger as time goes by and will eventually remember the sequence. Find a pace that is active and rhythmic, without any pauses.

The water will become silky and 'elastic' as the preparation is incorporated into the liquid.

A good handful of barrel compost can be added for the last 20 minutes of the stir.

Next it's time for application. For smaller areas or with a team of people, a small hearth brush and pail are ideal. You can also make brushes from bunching plant matter such as lavender or willow. Larger areas may need a clean backpack sprayer or a tractor for application.

If you can't get to all areas of your land, apply around the periphery.

Each droplet radiates out, so the spreading can be done at a walking pace, dipping and flicking the droplets as you walk your land.

The preparation ideally falls as droplets (like rain) on bare soil and plants. For pasture, it is good to spray after haying, grazing or cutting.

Once you've applied preparation 500 a few times on the land, you can invite the same group and others to attend another event to stir preparation 501, horn silica, as the sun rises. It's best to do this when the ascending moon is (generally) sitting in a fruit, seed, warmth constellation – Leo, Sagittarius or Aries.

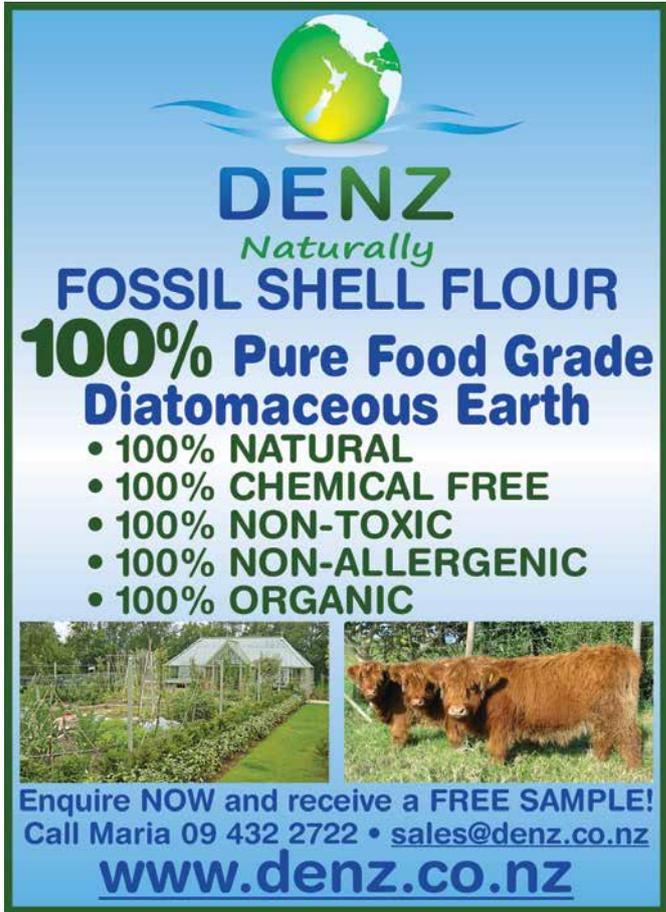
This need only be a half-day workshop, finishing with a morning tea. There is something very magical about stirring at the break of day. Sharing that experience with others is a worthwhile exercise that they'll thank you for. Speaking to the theme of your activity is reaffirming, and harnessing other people's energies into the practice has its own benefits. To witness first light and observe the fine mist of liquid quartz silica as it gently levitates whilst magnifying the sun's rays is like a morning meditation that leaves not only the land but also the group energised.

It may sound like a lot of work, but once you set the wheels in motion, everything else seems to fall into place. Prepare to feel connected and uplifted.

Enjoy. ■

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Harvests would love to hear about your workshop experiences along with any photos you'd like to share. Please contact Amanda, [amanda@biodynamic.org.nz](mailto:amanda@biodynamic.org.nz).



The advertisement features a green and blue globe at the top. Below it, the text reads: **DENZ** Naturally **FOSSIL SHELL FLOUR** **100% Pure Food Grade Diatomaceous Earth**. A list of benefits follows: **• 100% NATURAL**, **• 100% CHEMICAL FREE**, **• 100% NON-TOXIC**, **• 100% NON-ALLERGENIC**, and **• 100% ORGANIC**. At the bottom, there are two photos: a vegetable garden and a brown cow. Below the photos, the text says: **Enquire NOW and receive a FREE SAMPLE!** Call Maria 09 432 2722 • [sales@denz.co.nz](mailto:sales@denz.co.nz) [www.denz.co.nz](http://www.denz.co.nz)

## MEMBERSHIP

Post: PO Box 356, Martinborough 5741 Ph: 06 306 8582  
Email: [info@biodynamic.org.nz](mailto:info@biodynamic.org.nz) Web: [biodynamic.org.nz](http://biodynamic.org.nz)

**Becoming a member of Biodynamics New Zealand is more than just a subscription to Harvests magazine...**

You become part of a special community where biodynamic ideas are shared and biodynamic ideals are nurtured. You have the opportunity to participate in relevant discussions that affect your food, your animals and your environment. You have access to a myriad of different resources and, most importantly, the knowledge and spiritual companionship of the membership.

Since 1939, the Bio Dynamic Farming and Gardening Association in New Zealand has campaigned for healthier and more sustainable living through the practice and implementation of the biodynamic ethos.

### Membership of Biodynamics New Zealand (including *Harvests* subscription)

- |  |   |
|--|---|
| <input type="checkbox"/> Digital membership (\$53 per year)    | <input type="checkbox"/> Business Partner (\$750 per year)        |
| <input type="checkbox"/> Full membership (\$115 per year)      | <input type="checkbox"/> Supporter membership (\$3450 for 10 yrs) |
| <input type="checkbox"/> Corporate membership (\$297 per year) |   |

For more information on membership please phone the office on 06 306 8582 or visit <https://biodynamic.org.nz/biodynamic-association/joining-the-association>

# GROWING *beyond* RESILIENCE, WORLDWIDE

Biodynamics New Zealand Council member Katrina Wolff shares snippets of biodynamic-themed research initiatives from around the world.

One of the few good things to have come out of Covid is that institutions like the Goetheanum in Switzerland have begun hosting online conferences, making it possible for more people from all over the world to attend. This September, the second-ever Research Conference took place, and I decided at the last minute to go and have a look. Here are some conference impressions.

The theme of the conference was Growing Beyond Resilience, and there were 177 participants from 36 countries. There were student tickets for just €20, which seems like a fabulous way to bring all the PhD students along to present their work.

Key highlights for me:

### Chromatography with Liron Israely

This is brand new research (not yet published), but keep an eye out for Liron's work. He's on Instagram as @adama\_biodynamic or you can find his website here: <https://en.adama-biodynamics.com>.

Chromatography has been used for soil analysis for many years, and Liron showed the various measurements that farmers can obtain. His research was directed at what people can start to perceive about energy in a qualitative sense, and he used grounded theory to analyse the language of their conversations and look for themes.

While qualitative research can seem a bit fluffy, he showed a list of adjectives that are very objective qualities:

- cold - hot
- smooth - rough
- cloudy - clear
- dense - liquid
- dull - sharp
- heavy - light
- oily - dry
- soft - hard
- gross - subtle
- static - mobile

## Results: Chromatography survey

### Preparation effect

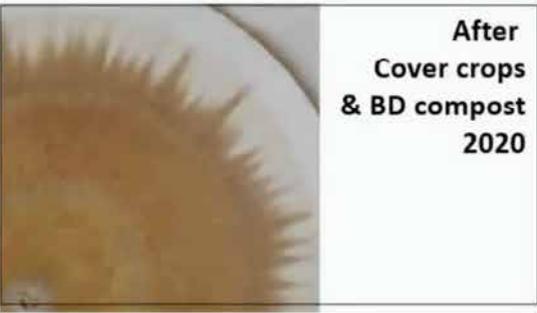
 <p>Salsila Farm, Med., vegetables</p>	<p><b>Soil in Un-productive state 2019</b></p> 	<p><b>After Cover crops &amp; BD compost 2020</b></p> 
	<p><b>Soil in 500 pit</b></p> 	<p><b>After First production season Summer 2021</b></p> 

Image: Liron Israely

Soil chromatography comparisons from Liron Israely's presentation.

It was mesmerising to see the differences between soil that was farmed with conventional methods, and land farmed with biodynamic practices.

I hope Liron publishes a big glossy book with these beautiful images.

### Perceiving the Farm Organism with Jean-Michel Florin and Lin Bautze

There's often an assumption within biodynamics that everyone knows that each farm and each garden has its own individuality, and that the farmer is able to perceive this.

This session went into how that actually works, and it's one of the talks I really, really want to watch again, with experienced researchers talking about their process on a farm, working with farmers. Some key points:

- The farmer needs to perceive with all senses, including being able to see and smell vitality.
- That perception needs to be connected with feeling. Will the actions a farmer takes based on perceptions/feelings be different from purely intellectual decisions?
- The researcher needs to be interested in everything the farmer tells them. The researcher often has just one narrow focus, but being connected to someone who is in tune with the whole farm has to be a part of the research. (Anet Spengler)
- This sort of connection to the land is something that can change one's life profoundly; there's often no going back. The researcher therefore carries a huge responsibility; what right do we have to be a catalyst in this process? (Saskia von Diest, Ecofluency)

Lin Bautze and Jean-Michel Florin are working on this topic within a project called Living Farms. Lin talks about this with Aaron Perry on the YonEarth podcast (<https://yonearth.org/podcast-archive-episode-98>).

There's something about hearing a French person describe the concept of terroir that is just so good. And I appreciated the assurance that we can and should develop this in our fruit and vegetables, our cheese, milk and meat – all of our food, not just our wine.

### Whitewashed Hope: A message from 10+ indigenous leaders and organisations

Julia Wright of Coventry University presented a paper showing how biodynamic agriculture compares to permaculture and other regenerative farming. For me it was so refreshing to have the comparison laid out in a very logical, well-researched format. Julia showed exactly how biodynamics is so much better at aligning with indigenous practices around the world. In the simplest terms, biodynamics embraces a metaphysical worldview. She's been working on a collaborative project called *Subtle Agroecologies: Farming with the Hidden Half of Nature*.

Here's a summary of the document, from Rishi Kumar (Farmer Rishi), one of the authors. It's such important work: <https://farmerrishi.com/blogs/farmer-rishi/whitewashed-hope>.

### Using Agnihotra ash on baby seedlings

There was an interesting presentation by Dheeraj Singh titled 'Opportunistic agroecological adaptation by farm women under semi-arid conditions of Rajasthan, India.' The fascinating thing for me was that one of the key treatments of the plants was a light scattering of cow manure ash. I asked if this was the Agnihotra ash, and yes it was! [*Agnihotra is a Vedic fire ritual.* –Ed.]

Dheeraj told us that the ash keeps insects, pests and fungus away and nourishes the plants. Somewhere in my storage unit I have an Agnihotra kit with a big bucket of dried cow manure, some homemade ghee and a jar of organic rice. Once I'm allowed to go get it, I'm tempted to resume this dawn/dusk ritual and run some experiments using the ash on my seedlings.

### A few more rabbit holes to explore

- Read up on the Harmony project, especially the book by Prince Charles published in 2012, *Harmony: A New Way of Looking at Our World*.
- Patrick Holden and the Sustainable Food Trust in Wales. (There are loads of interesting articles on this website ranging from ethical farming to consumer rights, fair pricing and farms as education centres.)
- Rosamund Young's book *The Secret Life of Cows* – go to the video "Meet Rosamund Young, Author of The Secret Life of Cows" (<https://www.youtube.com/watch?v=3cXiG8iUq1E>) to watch Rosamund talking about her cows and her book.
- Saskia von Diest and her work with Ecofluency.
- Sekem's work in Egypt, showing the potential to use biodynamic methods at scale. Go to <https://www.sekem.com> to watch an eight-minute video about the initiative, which began in 1977.

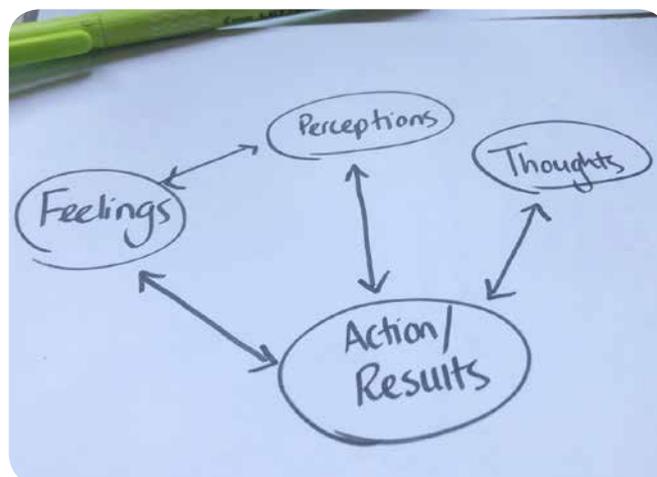


Image: Katrina Wolff

Above: Perceiving the farm as a living organism.

# HOW DEMETER CERTIFICATION WORKS

## Demeter New Zealand Secretary Joanne Turner explains how farms and products become certified biodynamic

What makes a farm or garden biodynamic? If I put some preparation 500 on my garden three years ago, is it still biodynamic? Is using the preparations alone enough to make it biodynamic, or is there more to it than that? Some people might agree on the answers to these questions, while others will not. On your own farm or in your own garden, that's fine. But if you are going to sell your produce and tell people it's biodynamic, how will they know whether your definition of biodynamic is the same as their definition of biodynamic? This is where standards come in. Being certified to the standard gives the grower a licence to use the Demeter trademark.

One of the main reasons for going down the track of certification is to show the world that your produce is biodynamic. Certification shows that your farming practices or processing procedures have been checked against a standard and found to comply. Of course, that presupposes that the Demeter standard is the only word on what constitutes biodynamic; however, as with all auditing, the Demeter standard gives a benchmark that can be measured against.

Once an enterprise has gained full certification, then the Demeter logo can be applied to the certified products. While a property and all the production areas on that property must be farmed to the Demeter standard, only when certification has been requested for a specific production area will that be on the certificate. For example, under the standard, if conventional cattle are over seven days old when they come onto a biodynamic property, they cannot be Demeter-certified for meat. They need to be managed to the standard, but cannot be certified for meat.

Each year, the biodynamic and Demeter organisations from around the world meet. This gathering is called the Members' Assembly. At this year's Members' Assembly, the growth in Demeter-certified products was shown to be increasing at a great rate. The graph on the right shows predictions for how this growth might look over the next five years, based on what we've seen in the past three to five years.

Unfortunately, growth in certification has not been strong in New Zealand, and we have some way to go to get back to the heady days of the 1990s, when there were over 50 licensees at any one time. It's a bit like the chicken and egg question. Does the demand for Demeter produce precede a rise in certified properties, or does the rise in certified produce provide an opportunity to market Demeter, thereby creating a demand for Demeter certified products?

### Becoming certified

The procedure for gaining Demeter certification is not onerous but requires a certain amount of organisation and structure in recordkeeping. The process of applying for Demeter certification is similar for both primary producers and processors. As the certifier, the Demeter Assessment Group needs to understand the farm and its management, and have documented evidence that is sufficient for them to give an assurance to buyers that the produce meets the Demeter standard. These documents are:

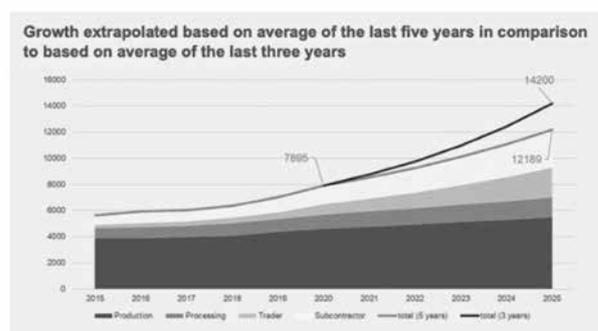
For primary production:

- A farm profile, which gives background information on the farm and covers things like topography, building layout, soils and climate.
- A management plan that tells the assessors how the licensee is going to manage the property, which people are in charge and what biodynamic training they have had, what the production sectors are and how the licensee is looking after their crops or animals.
- An annual report which gives information on all the farm practices that have gone on since the last report. It includes information on when preparations were sprayed or used in composts, what other materials are used on the farm, what the stocking rate is and how and where the Demeter logo is used.

For processing of Demeter raw material:

- A processing plan describing how the processing of the raw material will be undertaken.

### Certification data based on the Yearly Update 2020



This graph shows projections of expected growth in the number of Demeter-certified producers worldwide over the next five years, based on trends of the last three to five years.

- If the processed product is wine, then a winery report is completed instead of the processing plan report.
- An annual report which gives information on how much raw material was brought in, what the ingredients in the product were, and where the product was sent.

Templates are provided for the licensee to follow for the farm profile, management plan and processing plan or winery report, but the licensee fills these in using their own words. For many licensees, writing these plans is a useful exercise to help them think about their farming operation and how they tackle various challenges throughout the year.

Once the documents have been completed, they are sent for review. Two Demeter Assessment Group members review the information and check it against the standard. If anything is not clear, then further information is requested from the licensee. Following this review, the licensee's organic certifier (either BioGro or Organic Farm NZ) is sent a checklist for their auditor to go through with the licensee during the organic audit. The completed checklist, along with any further information gathered during this visit, is sent back to Demeter New Zealand.

A member of the Assessment Group reviews all this information and then makes a recommendation on whether Demeter certification can be offered or whether there are any things that need to be completed before certification is granted. All members of the Assessment Group discuss the recommendation, and then instruction is given to the Demeter Secretary on the outcome, who advises the licensee.

The above is a brief summary of the process for gaining Demeter certification. More information can be found on our website at <https://www.biodynamic.org.nz/demeter/applying-for-demeter-certification>.

If anyone is considering taking up Demeter certification, your enquiries are most welcome. Please contact Joanne Turner, Demeter Secretary on [demeter@biodynamic.org.nz](mailto:demeter@biodynamic.org.nz).

## How did we go from 50 licensees to fewer than 20?

BioGro was founded by three organisations: Soil and Health, Doubleday Research Association of NZ (now defunct) and the Bio Dynamic Farming and Gardening Association.

Why did our biodynamic organisation participate in this? Demeter certification was set up at that time, and the thought was that there needed to be a certification for those who wanted an organic certification but didn't have an interest in biodynamics.

BioGro grew faster than Demeter. By the mid-1990s, BioGro had over 200 licensees, while Demeter had about 50. Several events then came together which changed things.

First came the retirement of Peter Proctor as Demeter inspector and National Field Advisor. Peter had been visiting up to 100 farmers a year. He always encouraged them to use the biodynamic preparations. With Peter gone, farmers no longer had such a ready reminder, and some of them may have lapsed in their biodynamic practices.

Secondly, several influential events took place outside of New Zealand. In 1996 IFOAM launched a scheme (now IOAS) for the accreditation of organic certifiers. This was driven by the Swedish organisation KRAV. This impacted BioGro, because BioGro-certified honey had been going to Sweden and rebranded KRAV. Almost as soon as KRAV became IFOAM-accredited, it made accreditation a requirement for other certifications exporting to Sweden who wanted to use the KRAV mark. The buyers of the honey said that KRAV had very strong consumer recognition in Sweden, and without it the New Zealand honey would be unmarketable. The pressure then came on BioGro to become IFOAM-accredited. Due to the costs involved, this was hard enough for BioGro with 200 licensees and simply unaffordable for Demeter with 50.

At about that time, the impact of the first EU Organic Regulation of 1991 was becoming more pronounced. Under this regulation there were two ways of sending organic produce to Europe. One was to have your country on the EU 'third country list'. New Zealand did not get onto the third country list until our Ministry of Agriculture and Forestry made arrangements with the EU Commission by developing and gaining recognition for the Official Organic Assurance Programme. Fairly soon, required documentation for exporting came to include IFOAM accreditation. Without that accreditation, Demeter produce could not be exported to Europe. From this point on, it became increasingly necessary for export-oriented Demeter licensees to have a BioGro (or AsureQuality) organic certification as well as their biodynamic certification. Some decided not to have both certifications unless the Demeter certification could be combined with the BioGro certification for a nominal fee. At that time that wasn't possible.

Thus, Demeter New Zealand became a certification mostly restricted (there have been exceptions) to committed biodynamic growers selling on the New Zealand market. Meanwhile, BioGro certification was opening export opportunities, and that drove some growth for exporting producers.



Photo: Henk Kieft

Saskia von Diest (at right; see story on page 10) raises the Demeter flag with intuitive farmer Ellen Jeuken.

# IMAGINATION, INTUITION & INSPIRATION

## Art and the unseen forces that make up our world

By Christine Moginie

*Christine Moginie is a Steiner-trained educator, artist, art therapist, counsellor, biography life myth practitioner, and biodynamic gardening consultant for 'Conversations in Colour' and Vortex Biodynamics. She lives in Mangawhai.*

As an artist sitting before a blank piece of paper or canvas, this is the moment of truth, waiting patiently or charging on in, trusting the creative process. Listening intently or diving into the moment. Finding the courage to wait for the feeling of now to pick up my brush, or pastels, or charcoal, or just knowing intuitively that the colours I choose at the start may

well not be obvious at the end of the ride. There is no wrong or right. There just is.

I usually ask for guidance, sometimes belatedly, from my 'team', as I call them. Two art teachers over the threshold, my grandmother, other ancestors and my angels clap and cheer and send images, thoughts, ideas, impressions, feelings, music, poetry, memories, tantalising flickers of experiences, and above all, love for the task at hand.

Over the years I've honed the trust to enter the space between the worlds, to be present in the moment in active stillness, meditative concentration. Sometimes 'gifts' appear on the paper, seemingly without much conscious awareness. Perfectly perfect. Done, leave it, walk away.

Sometimes a sense of struggle warns me to stop, take a break, come back later; usually when this happens I'm trying too hard and am outside the 'zone', overthinking it all – disastrously disastrous.

In breath, out breath, trusting the unseen, unknown, non-tangible, ever-present worlds of imagination, intuition and inspiration. Just like the meditative experience stirring 500 for an hour on my own.

There is much to be gained by incorporating an artistic element into your biodynamic practice. To begin with, try sitting in the garden drawing, after some time doing a plant observation exercise. Then, from the colours and forms or qualities observed, allow a freer intuitive imagination of the living elements or energies that create, developing a home environment for a plant to be born into.

You can follow this with a will exercise, developing a more focused layer, or a veil painting exercise inspired by the first two steps. Draw in deeper to the centre of the vortex of life forces.

How does this all connect to biodynamics, you may ask?

I randomly picked a summer issue of *Harvests* (1997, Volume 50, Number 3) from the box in my study and opened it to pages 8 and 9. The following article attracted my attention.

"How is Fertility Sustained on Biodynamic Farms" was reprinted from the Australian biodynamic magazine *News Leaf*, written by Australian field advisor Terry Forman. In 1994, Terry spoke to the New Zealand Biodynamic Association about "making an attempt to understand the living formative forces which are obviously at work in the farm situation", mentioned in the eight Agriculture lectures given by Rudolf Steiner in 1924. The text on the following page is quoted from Terry's article.



Photos: Christine Moginie

Watercolor painting as an artistic response to observing a flower.

Right: Using the veiled watercolor technique, the artist is able to represent the multitude of forces and energies that lie beyond the material world.



**What we feel, see and smell immediately before us is only a part of the whole plant. There are other parts or aspects of the whole plant which are spread out through the cosmos.**



### Cosmic fertility - by Terry Forman

In these lectures we come to see that a plant does not only exist here on Earth: that what we feel, see and smell immediately before us is only a part of the whole plant. There are other parts or aspects of the whole plant which are spread out through the cosmos, but particularly centred in the sun, moon and other planets; and yet other parts which are centred in different parts of the "fixed star" realm of the zodiac beyond the solar system. We could make a comparison here between the plant growth and weather patterns. A picture of a tornado might be a useful analogy of what I am trying to express.

The intensive area of low pressure, which is really the essence of the tornado, is only made visible because of moisture, soil, organic debris which the spirally movements of air have sucked towards the centre. However the tornado cell extends, in the upper atmosphere especially, over hundreds, or even thousands of kilometers, and it in its turn relates to all the other high and low pressure systems of spirals, air movements which are present at that season on the Earth.

Remember that a season is just a particular relationship between Earth, solar system and zodiac. Thus we can begin to imagine plants as tiny living tornado-like creatures which also suck moisture, soil and organic debris to their centres.

But in the case of plants they are actually living creatures which have a suctional "etheric" life centre which is connected directly to the inner living part of the sun as well as the outer part of the sun (light and warmth) which our weather systems are connected to.

So a picture can begin to form of the nutrients, which are being drawn into the influence of the whole plant, as also having aspects of their nature beyond what we can immediately weigh and measure here on Earth. And like

the plant which is constantly changing through its forms of seed, root, leaf, flower and fruit: the mineral nutrients are constantly changing from one part of their cycle to another.

Steiner has stressed that these extra-terrestrial parts of the cycles are very significant. They can perhaps be thought of as being more in the form of warmth, or light or even something akin to sound vibration. That is a form of energy and even beyond that as a pre-energy or spirit form.

It can then be seen how a farming method which does not stress the importance of the farm being seen as a biological entity which is responsive to the whole cosmos, might only have a stunted development of some of the nutrient cycles, and thus would need to be constantly topped up from the outside. It is also interesting in this regard to ponder the fact, as presented by Steiner, that the mineral substances that we have here on Earth are actually "decayed light", almost like manure, left behind by the light assimilation processes of primordial living plant/mineral forms.

In the last pages of Lecture 5 of the Agriculture Course, we are told also that there are transmutations from one mineral to another under the influence of biological pressures and that the compost preparations are intended to enhance these activities: "For there is hidden alchemy in the organic process, which transmutes the potash, for example into nitrogen, provided only that the potash is working properly in the organic process. And the nitrogen which is transformed in this way is of the greatest benefit to the plant growth."

Many people have derived much food for thought on this subject from the book *Biological Transmutations* by C.L. Kervran. We at least need to appreciate that there are not necessarily simple answers to what on the surface, appear to be simple questions. ■

The Demeter logo is positioned at the top center of the image. It consists of the word "demeter" in a white, lowercase, sans-serif font, set against a solid orange rectangular background. The orange background has a slight wavy, torn-edge effect at its bottom boundary.

demeter

A photograph of Johanna Fellner, a woman with blonde hair tied back, wearing a plaid shirt and jeans. She is standing in a field of large-leafed plants, holding a bunch of green leafy vegetables in her left arm and a purple cabbage in her right hand. The background shows a clear blue sky with some light clouds.

JOHANNA FELLNER  
*Dottenfelderhof, Germany*

# EAT MORE INTUITION

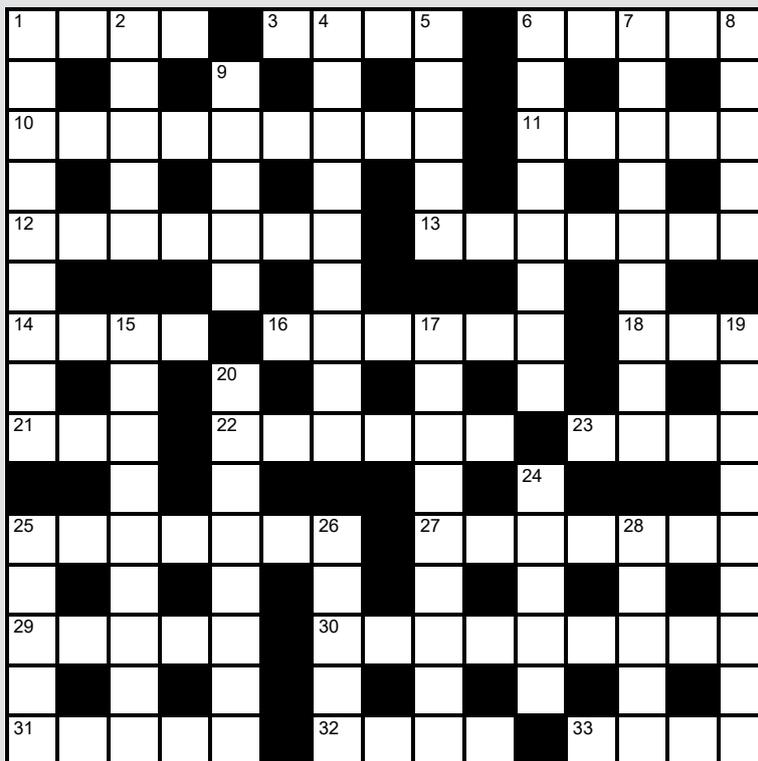
The phrase "you will grow" is located at the bottom center of the image. It is written in a white, lowercase, sans-serif font and is set against a solid orange rectangular background that matches the one at the top of the page.

you will grow

# BIODYNAMIC CROSSWORD

By David Wright

As always, a question mark denotes a cryptic clue. For solution see page 46.



## ACROSS

1. It comes before the storm (4)
3. Biodynamic farming relies on these as much as science (4)
6. Cocky's cow calmer (5)
10. Sometimes used as mulch, but some people question that use (9)
11. Can you really see it if you are told to do so? (5)
12. Land withheld from commercial use (7)
13. Nitrogen carrier in biological matter (7)
14. Best avoided during the roar unless it's a party? (4)
16. Good biodynamic wine relies on wild ones (6)
18. If... and ands were pots and pans, there'd be no work for tinkers (3)
21. A set of compost preparations (3)
22. Male bovine meat portion now often sourced from females (6)
23. Nose type of brachycephalic dog (4)
25. Fishy haircuts? (7)
27. The kind of experiment that requires no equipment or physical activity (7)
29. Something to avoid when moving livestock (5)
30. By this cities endanger farmland (9)
31. Where ancients predicted the flooding of their river by the rising of Sirius (5)
32. Type of spectrometry widely used in study of biological materials (4)
33. Woodworking tool also used in gardening (4)

## DOWN

1. Black v. white, go v. stop, large v. small, etc. (9)
2. Monocultures common in towns (5)
4. To be a delegate, or show again (9)
5. To draw the last milk from the udder (5)
6. Kind of farming used in Africa to adapt sowing to nature and type of opening rains (8)
7. The lion's tooth flower used to make a biodynamic preparation (9)
8. Currently absorbs carbon dioxide, heat, topsoil, plastic, etc. (5)
9. Mills period tells apple grower it's likely to germinate (5)
15. "Land girls" in WW2 became part of the Women's War Service \_\_\_\_\_ (9)
17. Sandy, clay, peat, chalk and loam are common examples (4,5)
19. Diminished by homeopathic dilution (9)
20. Legal form used by QEII Trust to protect ecosystems (8)
24. Sheaths for field spray preparations (5)
25. A barn owl (5)
26. Type of whale dangerous to squid (5)
28. First thing to do with quartz for prep 501 (5)



# BIODYNAMICS NEW ZEALAND INFO AND SERVICES

## Contact Details

Biodynamics New Zealand  
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Web: [www.biodynamic.org.nz](http://www.biodynamic.org.nz)  
Facebook: [BiodynamicsNewZealand](https://www.facebook.com/BiodynamicsNewZealand)  
Instagram: [Instagram.com/BiodynamicsNewZealand](https://www.instagram.com/BiodynamicsNewZealand)

## Subscriptions - Membership

Digital \$53  
Full \$115  
Corporate \$297  
Business Partner \$750  
Supporter (valid for 10 years) \$3,450  
Institution libraries \$45 (magazine only)

## Biodynamic Preparations

We dispatch by standard NZ Post parcel post, or with a courier upgrade if requested, to members of Biodynamics NZ.

All orders go through the Biodynamics New Zealand office, and if received by midday Monday will be dispatched that week. To be sure of them reaching you by a particular time allow another week, i.e. order on Monday morning at the latest to ensure delivery by the end of the following week. Please specify in orders the amount needed, membership name, delivery address and phone number. Send orders by post or email, or phone to the office (24-hour message recorder). Only emailed orders are acknowledged.

### Checking your preparations

Please check your preparations as soon as you receive them, and transfer them to storage suitable for the length of time you need to keep them. (See instructions in *Using the Biodynamic Preparations*). If you have any queries about them, please contact the office within two working days.

### Preparation charges

Preparation 500 \$10 per portion (25g)  
Preparation 501 \$6 per portion (1g)  
Compost preparations 502-507 \$16.80 per set of six  
Cowpat pit \$15 per portion (100g)  
Preparation 508 \$16 per portion (100g)  
GST, postage or courier and handling charges extra.  
Please pay on invoice - do not send cash with order.

### Rates for preparation use

See the booklet *Using the Biodynamic Preparations*. Members who do not have a copy can request one from the Biodynamics New Zealand office.

## Council

The Bio Dynamic Farming and Gardening Association, founded in 1939 and an incorporated society since 1945 and a registered charity, is governed by an elected council of up to six members.

### Current councillors / contacts:

#### Joanne Turner (Chair)

Palmerston North  
[joanne@biodynamic.org.nz](mailto:joanne@biodynamic.org.nz)  
Ph 06 329 0943

#### Cathy Jamieson (Secretary)

Martinborough  
[secretary@biodynamic.org.nz](mailto:secretary@biodynamic.org.nz)

#### João Corbett

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#### Christine Moginie

Mangawhai  
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#### Katrina Wolff

Auckland  
[katrina@biodynamic.org.nz](mailto:katrina@biodynamic.org.nz)

## Demeter

Demeter inspections \$460 for new applicants, \$420 for renewals. Extra time \$60/hr + GST.

### Demeter Assessment Group:

#### Ian Henderson (Convenor)

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#### Joanne Turner (Secretary)

Palmerston North  
Ph 06 306 8582  
[demeter@biodynamic.org.nz](mailto:demeter@biodynamic.org.nz)

## The Kete Ora Trust

The Kete Ora Trust is a charitable fund supporting biodynamic education and research in Aotearoa New Zealand. Founded in 1997 by the Bio Dynamic Farming and Gardening Association in New Zealand (Inc), the Trust accepts funding applications quarterly and welcomes donations and bequests to support its work. Please contact the Kete Ora Trust on [info@keteora.nz](mailto:info@keteora.nz).

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