

START YOUR SYNEGISTIC STACK ECONOMICALLY AND SEE YOUR
ECO-SYSTEM COMPLEXITY GROW

PASTURE FERTILITY STACK

Foliar bio stimulant fertilisers—activate pastures with biology and chelated minerals

BAM inoculum—Multipurpose blend of anaerobic species for soil, compost and plant health.

YLAD Humus Compost & Humus Extracted Tea—increases the ability to restore and expand biological activity in the soil while further enhancing the physical and chemical properties

Soft rock phosphate

Stabilised Boron Granules—Boron complexed into a humate colloid, essential for Calcium uptake into the plant

Zinc sulphate

Copper Sulphate

Molybdenum—essential trace mineral for nitrogen fixation

ANIMAL HEALTH

Y-Lick— balanced dry-lick supplement can off-set the lack of nutrients in available fodder allowing their animals better health and resilience

CROPPING—MULTI-SPECIES CROPPING STACK

Stubble Digestion—Break down cellulose and convert into plant available nutrients for next crop

Seed Start— Establish robust roots with enhanced root systems

VAM—Colonise plant roots and increase access to nutrients (phosphorus & zinc) and moisture.

YLAD Humus Compost & Humus Extracted Tea—increases the ability to restore and expand biological activity in the soil while further enhancing the physical and chemical properties

Magnesium

Soft rock phosphate

NTS Soluble Fulvic Acid Powder

Zinc sulphate hepta

Copper Sulphate

Molybdenum—essential trace mineral for nitrogen fixation

Stabilised Boron Granules—Boron complexed into a humate colloid, essential for Calcium uptake into the plant

Soluble Humate Granules—Increase efficiency of fertiliser. Build soil water holding capacity. Stimulate soil biology

Zinc Sulphate Mono Granules—Zinc is involved in 300 enzymatic reactions in the soil, enhanced photosynthetic activity.

Guano Sulphur Gold—11.5% P 29% Ca 9% Silicon—Sustained release of Phosphorus ensures plant availability through the growing season

Humus Extracted Compost Tea—Liquid Humus Tea containing humus protein, minerals & enzymes

Germinate Plus— % N 12.4, P 11.2, S 10.68, Ca-5, Zn 1.46, B 1.55 Humic Acid 2.8—Our No1 best seller!!!

Legume Plus—Calcium rich down the Tube Fertiliser ideal for sowing legumes for healthy active rhizobia

Multi-species Grow — % N 7.3, P 7.65 S 6.71, Ca-2.5, Zn .73, B .06 Humic Acid 2.8 Ideal for sowing multi-species crops, contains microbial food, and trace minerals

Magnesium (Mg) is an essential nutrient for a wide array of fundamental physiological and biochemical processes in plants. It largely invokes chlorophyll synthesis production, transportation, and utilization of photoassimilates, enzymes activation, and protein synthesis

What is the role of sulphur in plants? Sulphur and sulphur containing compounds act as signalling molecules in stress management as well as normal metabiotic processes. They also take part in crosstalk of complex signaling network as a mediator molecular. Plants uptake sulphur directly from the soil by using their dedicated sulphate transporters.

CALL US TO TALK ABOUT YOUR PROGRAM: YLAD Living Soils have developed products designed to complement existing production systems to enhance soil carbon through biological processes and en-



YLAD Living Soils News

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From Rhonda & Bill's Desk



As the year comes to a close we must congratulate you all for being a proactive farmers helping to amend soil health and mitigate climate change. Bill and I were so proud to hold YLAD Living Soils 20th Anniversary Seminar and Field Day back in February and have over 130 farmers coming to hear from some of the best minds in the world on building soil, plant and human health. Pioneers in the biological, regenerative farming field little did we know the role of soils would be elevated to such lofty heights. Having held over 50 Seminars, Workshops, and Field Days we have lost count how many farmers we have educated and helped become more confident to change direction. We truly appreciate your loyal business, support and friendship, it has been a pleasure working with you and we're excited for the new year and the opportunities 2024 brings. More and more

farmers are seeking change, some motivated by things other than just soil health, carbon is a bait that is being waved as a potential source of income as well as accounting for our on farm emissions. Definitely all who have 'turned the corner' will be sitting pretty to adapt to changing times. On a very sad note: **Julie Anderson**, who has worked for YLAD Living Soils for 12 years is retiring in February. I cannot express my heartfelt thanks for the years of dedication to YLAD and our family. I am sure you will all miss her cheery voice on the end of the line and her friendly manner, nothing is ever too much effort for her. Julie we will all miss you so much! We welcome Nikita Fensom to the team who will be in the office every Tuesday and will assist me in running YLAD Living Soils. Wishing you and your family a very Merry Christmas and I hope you get a nice relax. Don't forget to get your orders in early to avoid disappointment.



Happy holidays Rhonda & Bill

+2024 Order Early

With harvest finished or about to be finished start thinking about the 2024 Season. A good time to take soil tests is in early January and beat the rush. Our soils tests are the most comprehensive available, testing the 3 pools of soil nutrients. Contact the office for Soil Test Kits and test the paddocks that you would like to work on in 2024!!

NEW *Multi-Species Grow*
Start the regenerative journey by using Multi-Species Grow to sow your next cover crop.
Low emission fertiliser
Microbial friendly
Nutrient rich
58 kgs/ha—\$99 per ha ex GST bulk
ORDER NOW

Like minded woman visit Milgadara



The Land Gardeners - Bridget Elworthy and Henrietta Courtauld from the UK visited Milgadara in November. Driven by a deep concern about climate change, Henrietta and Bridget intuitively felt that they needed to start with their hands in the soil. They have since become increasingly passionate and knowledgeable about improving landscape and human health – both with gardeners and farmers – by building vibrant soils.

Now recognised globally for their design of productive and stunning landscapes, they work with people and a variety of institutions around the world to educate on the benefits of, and ways to steward, a living soil.

Said Bridget, "We came to Young to see Rhonda and Bill and share in the wisdom of their soil health, especially because they are showing how it can be done on a large scale."

While on the farm, we showed Bridget and Henrietta our thriving wheat crop, due to our soils rich with humus, bacteria, fungi, and healthy soil structure. We explained our YLAD composting techniques which can be applied at any scale of farming, from the backyard garden to the broadest of broad-scale cropping enterprises.

Reflecting on their time at Milgadara, says Bridget, "We felt really honoured and privileged to be here. Driving around and seeing what they have done with the land was remarkable. We saw vibrant pastures, impressive biodiversity and healthy animals. There was a life to soil on their farm."

"We learned how Rhonda and Bill are systematically testing and reading the soils. We were very impressed with how they read the land through soil tests and visual observations. Rather like doctors reading the science and the physical signs, they prescribe specific remedies for addressing any mineral imbalances in the soil."

Henrietta further explained what they hope to do with what they learned on Milgadara back in the UK, saying, "We are doing a similar composting method in the UK, so it was brilliant to see Bill and Rhonda using it at scale in conjunction with soil tests and amendments like composts extracts."

We can see a working relationship growing with Bridget and Henrietta, as we three women continue to combine our passions to move and shake the world of SOIL!

Time to Soil Test Now

To start, what is your goal? Soil tests are more valuable when collecting trends over time. Farmers are highly skilled at observing their landscapes. They spend most of their time outdoors, noticing details large and small.

These above ground observations need to be correlated with what is happening below. As we have known at Milgadara for the past 20 years, the health of the crops and the animals reflect the health of soil below ground.

Soil health can be described in three dimensions.

How diverse is the below ground ecosystem? *Biology*

What micro and macro nutrition is mobilised in the soil? *Chemistry*

How well can air, water, roots, and microbiota interact in the soil? *Structure*

The soil tests, undertaken by [EAL](#), are the most **comprehensive available**, assessing the three pools of nutrients – **Total, Exchangeable and Soluble**. The test includes Nitrate and Ammonium Nitrogen and important micro nutrients, like molybdenum.

Biological activity can also be determined from these tests by reading the Base Saturation as well as how nutrients cycle from the Total to the Exchangeable to the Soluble pools.

Rhonda then spends significant time with each customer to discuss and explain the results and interactions. For example, research has shown, and Milgadara's experience has verified, that strong, healthy, and nutritious crops are grown in a soil where the ratios are 65 percent calcium, 15 percent magnesium, 4 percent potassium, and 1 percent to 5 percent sodium. Rhonda can discuss your Base Saturation and methods suited to your unique context to balance your ratios.

'Rather like doctors reading the science and the physical signs, they prescribe specific remedies for addressing any mineral imbalances in the soil.' said Bridget

Or, if the report says that the soil is low in **nitrate nitrogen then molybdenum** levels are assessed. The farmers might be able to correlate this with their observations that some plants are **stunted and yellowing**. YLAD can then also help to identify next steps, e.g. whether it makes sense to add molybdenum as a spray or a foliar in order for the plants to better access nitrogen, or if it makes more sense to start first with building the soil humus first.

It is important to repeat soil tests the same time of the year to assess any and monitor improvements.

YLAD Living Soils is also supporting a [Soil Health Challenge](#), run by Soils for Life. These simple soil observations – done in partnership with other farmers - include groundcover, soil infiltration, aggregate stability, and soil organisms. These visual observations of soil biology and structure complement YLAD soils

Testimonial—Bob Simson, Milawa Victoria—2023 update

"Bob contacted YLAD Living Soils around June 2019 telling me that the **rye grass under the irrigation** was been pulled out by the cattle. Interestingly soil test results showed a CEC OF 9 with a VERY GOOD balance of minerals but why was the soil so tight? As we know a soil consists of more than just minerals, **if Humus and microbes are not present the soil will not have good aggregation which is paramount in a soil becoming more self sustaining**. Bob has applied 2 prescription Compost Mineral Blend in September 2019 and 2021 and these are the results Impressive!!!

'I feel that my carbon is rising on the dry land as well as the irrigation.' said Bob

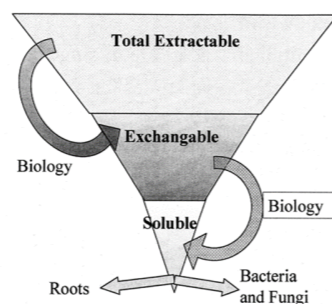
2019 soil profile



2023—After long periods of water-logged and inundated conditions and of course no air able to enter the soil the soil dug up by Bob in November had very good aggregation and structure.

2019—Compacted and very tight

2023 photo taken in same area



Eco-System Complexity

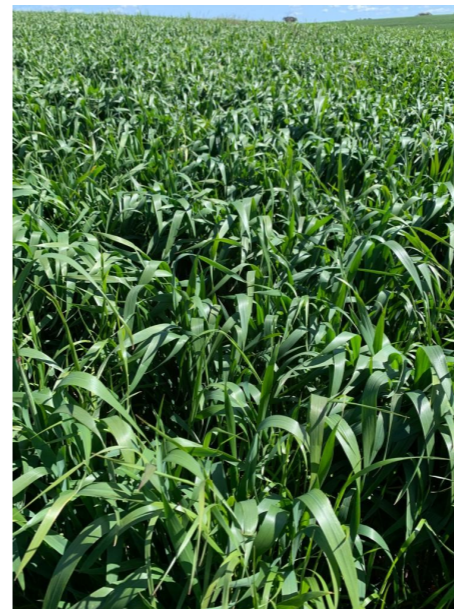
A new buzz word is infiltrating conversations around soil health: *complexity*.

On one hand, the idea of complexity is very important to consider. **Healthy soils have inconceivably complex interactions of competition, collaboration and co-creation between the bacteria, fungi, nutrients, humus, plants, insects, sun, wind, water, gravity, energy and much more.**

And, it's vital to consider the status of your **soil complexity when making investment decisions**. As soil legend [Sarah Fea](#) explains, your soil is like an engine. **Some soil engines are big and can do a lot of powerful work, like a Kenworth. Other engines are small, like a motor bike.**

If you are starting with a small engine in your soils – e.g. **a very small and simple living ecosystem** – then you take steps commensurate with the size of your engine, like adding Humus Compost to these soils. Over time with , simple soils can build systems complexity.

By starting with **small motor bike inputs**, using synergistic stacks of such as Seed Start, VAM, Humus Extracted Compost Tea, a theory of John Kempf's, the American Agronomist, you can **grow the complexity and size of your soil engine** and when your **engine is much more complex**, then the soils begin to perform **like a bigger engine**.



John Kempf refers to these combinations as "synergistic stacks," where one plus one produces something greater than two — sometimes much greater. Living organisms can produce a compounding effect, rather than an additive one. Starting with seedling development is a critical stage to start the synergistic stack for optimum results.

E.G. **Contour Paddock on Milgadara**, which is a small engine soil (CEC 5), our synergistic stack has consisted of Humus Compost Mineral blend, Germinate Plus, Humus Extracted Tea as liquid injection and foliar fertilisers. This harvest we were able to grow a 6 tonne/ha wheat crop with only 12 units of Nitrogen, compared to about 65 Units of N for conventional crops. The flag leaves extremely wide and



healthy, producing incredible photosynthetic activity, dumping carbon down into the rhizosphere to stimulate the microbes to feed the plant. We believe as famed Natural Farmer, Masanobu Fukuoka wrote – **Nature is far more complex than we can ever truly perceive or understand, so our main opportunity as farmers is to help Nature do her thing.**

Basically, if we trust in the ability of Nature to be the best conductor of the food and fibre production orchestra, then our role is to ensure her a healthy stage on which to perform.

So while **complexity is a helpful idea**, it can also become quite detailed. For example, **complex soil system measurement can be measured as:**

- Number of unique species types in your soil - *species composition*.**
- The number of individuals for each species - *species richness*.**
- Biological variation within each species – *genetic diversity*.**
- Coverage of species to deliver the functions necessary for healthy soil – *functional diversity*.**
- Evidence that all this complexity is working like a finely tuned engine - *interaction network structures*.**

We at YLAD Living Soils agree that these measurements can provide insight into soil health, and yet we also know that this depth and complexity of testing isn't yet affordable to all farmers but the aim is to keep building systems complexity by choosing appropriate inputs and nurturing nature.