



NOVEMBER 12, 2020 - NICOLE MASTERS - Q & A
Turning on the Biological Soil Gut System

Note:

- Many of these questions were answered live, as noted. You can view these answers by watching the recorded presentation – link found on our Regen Ag Resource page: <https://www.mfga.net/regenerative-ag>
- For highlighted questions left unanswered, the author notes that are better answered by grabbing her For the Love of Soil book: <https://www.integritysoils.co.nz/product/for-the-love-of-soil/>

Question(s)

Answer(s)

With something like this alfalfa treatment, will the soil require fewer and fewer additives overtime or is this a treatment that you would apply annually?

it was a one off

Have you compared the feed tests of pasture that was previously ultra high stock density grazed vs one that was not?

live answered

What class of soil was the test was run on?

verson loam with a gravel clay loam base

Please expand on the "seeds in minerals" comment

live answered

What form of humates do you use in your free choice humates?

live answered

What management practices are best used on waterlogged soils?

live answered

Loved the presentation. Can you comment on very cold prairie soil temps - the soil biome and ability for plants to overwinter?

What can be done in saline seep areas to boost productivity and help fix the water cycle? Both on pasture land and crop land.

are willows and poplars indicators of imbalances? What do they indicate from a soil health perspective?

Fascinated by your description of fungi making water. Where can I get more info on this?

With very dry conditions & a terrible grasshopper damage that occurred this year - what is our best move to make come this coming spring?

Can you speak to transitioning out of the use of herbicides on a grain farm, with no animals? In your book you spoke about the use of fulvic acid.

Are worm castings a reasonable substitute for the Johnson Su compost to make a seed coating?

Can you comment on synthetic fertilizers and their effect on soil health? And how long do effects last after stopping synthetics?

What are the first steps for someone wanting to start moving their operation into a regen system? Where do they start?

Any advise on addressing compaction in perennial pasture

Both vermicast and humic substances have been found to reduce the impact of the zones. Planting saline tolerant species with vermicast. Re-establishing deeper rooting tree species in lower areas helps to reset the water table.

live answered

live answered

live answered

live answered

Like all compost type materials, all comes down to quality. You need a fungal balanced vermicast with good protozoa numbers to substitute JS.

live answered

Need to ID which of the 5 M's is causing the issue and then address it at the root: Is it Management, microbes, minerals or low OM, and then take action from there.

<p>How would you suggest weaning our soils from P&K applications or just quite cold turkey? for grain and oil seed production</p>	<p>Always reluctant to go total cold turkey, need to look at what can be substituted for less harmful inputs, and assess do you need the K and P you have been applying</p>
<p>How do humated compare to biochar?</p>	<p>live answered</p>
<p>If we could only do one thing to increase the biology in our soil... what would it be?</p>	<p>live answered</p>
<p>What management practices can be used to reduce Gly rates in crop applications?</p>	<p>live answered</p>
<p>Can bio char be used in place of humate supplement?</p>	<p>Yes. I'll have a fabulous document out on this in a few weeks!</p>
<p>What are the gaps in research on regenerative agriculture?</p>	
<p>What creates the "sour" smell in an unhealthy soil versus the earthy smell of a healthy soil?</p>	<p>Anaerobic bacteria releasing by-products such as ammonia, sulfur, methane, formaldehyde etc</p>
<p>What have you found being the most cost effective seed treatment? im assuming this would be different for everyone's different situations but has there been one that continues to work in most scenarios?</p>	<p>vermicast extracts or compost extracts for sure</p>
<p>The slide that showed the pH differences between the root zone and the surrounding soil was fascinating.</p>	<p>live answered</p>
<p>In "conventional" annual cropping our yield is largely dependent on synthetic fertilizer use. How do we reduce the use of fertilizer and still maintain profit</p>	<p>There are lots of suggestions in my book :-)</p>
<p>What would you suggest as a good soil building companion crop for cereal crop meant for grain harvest?</p>	<p>live answered</p>
<p>Can you repeat the 5 Ms please?</p>	<p>Mindset, Management, OM (Organic Matter), Microbes and Minerals</p>

What was your initial motivation to move towards a regenerative system on your farm?

live answered

What do/did you fear when embarking down the soil health path?

We'll have a fabulous document out on this in a few weeks!

Where will you be posting this information?

Hey Chris, do you have a specific rotation you try to follow? Is it difficult to integrate your cover cropping and mono-cropping?

Have you measured any major changes to your soils since implementing regenerative agriculture?

When you grow hairy vetch and corn, do you seed it at the same time? Alternate rows? Spray the hairy vetch with roundup?

what was the mix of clovers Chris and rates of each?

My question is affect of a phos fertilizer like strovite vs acid based phos on soil biology