

508 Chickpea Intercrop Shines (Regen Ag News Feb 2023) – Plants Dig Soil Consulting Ltd.

#RealisticRegenAg | The chickpea-flax intercrop has been something studied and used in Saskatchewan for quite a while now. This past season of variable weather has really tested it and it seems that it has done much better than the monocrop. I will be discussing this more in the rest of this episode and talking about other regenerative agriculture news that I found interesting

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Linked Articles

<https://www.producer.com/crops/chickpea-flax-combo-delivers-in-the-field/>

<https://csanr.wsu.edu/potato-cropping-systems-soilborne-disease/>

<https://canadianagronomist.ca/soil-health-scorecard-developed-for-saskatchewan/>

<https://www.realagriculture.com/2023/02/assessing-how-landscapes-can-sequester-carbon/>

<https://farmingsmarter.com/news-articles/soil-health-and-government-policy/>

<https://www.producer.com/news/senators-want-early-no-till-adopters-recognized/>

OFCFAF RDAR Program (Alberta):

<https://rdar.ca/ofcaf/>

Tree program

<https://www.awes-ab.ca/>

Future Ecologies - Ground Truthing

<https://www.futureecologies.net/listen/fe-4-8-ground-truthing>

027 Cash Crop Intercropping

<https://www.plantsdigsoil.com/podcast/027-cash-crop-intercropping>

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Hi, my name is Scott Gillespie of Plants Dig Soil, the name of the podcast and the consulting company. We're an independent agronomy company. We do not sell products. We provide advice only. We focus on #RealisticRegenAg which has to be proven and profitable. We work in person or remote or a combination of the two. Our pricing is set to be affordable to anyone from a Q&A package to full farm planning. There's no long-term commitments, you can retain our services, do it yourself or hire others. Of course we always love to work with people over the long term.

Here's an article from the Western producer called chickpea flax combo delivers in the field. What I found really interesting about this is that it actually solved a really good problem this year. With the precipitation that came early. The mono crops were less mature had more disease and lower yield in the intercrop did in fact over yield in this year. They matured more consistently, and they had better yield and of course there is the disease, the disease advantages to it. So I think this is a really good example and I've covered this in two previous podcast episodes called intercropping for cash crops and intercropping for cover crops. And what I see this showing is that we need to use inter crops instead of thinking of as the goal like I've seen it put out that we should be just we should be intercropping because this is a regenerative agriculture practice but in reality, what we should be doing is intercropping where it makes sense to do in this seemed like it's a great place where it makes sense that intercropping does have to over yield to make it worthwhile because it does have a few more costs in it in terms of the planting process in the separating process, but I did find it interesting. There was a grower that said that the equivalent cost of two passes a fungicide was about how much it costs in the extra the extra to do this. So, saving money or over yielding definitely has, has a great fit. And so I'd encourage you to read this article and learn about a system that is showing great promise for the way chickpeas should be growing

So let's look at a potato cropping study that looked at soil borne disease. It was a long term study which are hard to do in potatoes and they did many different soil health or disease suppressing systems in it. I found them they were they were an interesting combination of doing things that didn't have a lot of cash crops in because they were really pushing their rotational systems where they had some bar. Barley was the only real cash crop in between but then they added Clover or they added a Timothy which is a perennial phase. And then they also added some compost and then also one where there was no cash crop in between it was just two years of disease suppressing green manures now they did find that disease reductions didn't happen under irrigation which makes a little more sense to me because irrigation does have more disease pressure and because of it being wet for so much longer. In the dry land, the biggest impact was the soil. water holding capacity of the soil that were impacted by doing these either disease suppressing or soil health building practices. Now as far as I've seen, I didn't see any economic analysis in here and this is where it can get a little challenging because we can we can have an agronomically better system but if it costs you more to do it, then you get out of it. It is it is a challenge to scale it up into a grower level. But I think there can be things that can be learned from this. So the article that I'll post is a summary of their work. And then you can get into the actual article itself if you really want to dive deeper into this. Something really interesting that they found and was not surprising to me is that organic matter only went up when you were importing organic matter in the form of compost. When they're using green manures cover crops. It didn't change the soil organic matter level.

However, the soil organic matter level wasn't a factor in how well the system worked. It was it was using the practices that worked so even though there wasn't that change in soil organic matter levels, it was still able to suppress the diseases or give the impacts that they needed. So very interesting study and I'll be looking more into it and I would encourage you to check it out.

On the Canadian Agronomist site this month, there was an article about the soil health Score Card that's been developed for Saskatchewan. I think this is really good work to be seeing is that we're getting prairie adapted soil health scores that can be more widely adopted here that are more suited to our conditions. So it's been a long term work I've seen this stuff develop over the last few years. One thing that I did find about this is that it doesn't seem like it's as simple of a test as the soil health institute was proposing such that they were that was in my update last month that they had it down to three very easy things that can be done and scaled up. I'm not sure how scalable the system is. But it's a very, very good work that's been done out of the out of Saskatchewan on this and I encourage you to check out the article on it. They talk about factors that fit in the different depths and in how they came about it.

This article called assessing how landscapes can sequester carbon from realagriculture.com covers a topic that I went into in a lot of detail on another podcast called Future ecology. So we're having an entire episode on nature based solutions and how they relate to agriculture. So I'll link that in the show description as well. If you haven't heard of this idea, it's the idea that we can use nature to sequester carbon and I hadn't realized it covered agriculture as well, but it's it covers anything where we can sequester carbon in that way. The interesting thing in this article and the researcher was a little surprised at was that it's a very small portion of what the targets are for sequestering carbon. I think it was only 6% but it covers everything from wetlands to forest to agriculture, in how you can use how you can sequester carbon that way. There's, there's a lot more in the whole article and actually, an audio segment that goes into it in detail. What I wanted to highlight is that he did talk about how the economics of this may be a little tougher than people think. And if we can put it together with things that actually helped to have other benefits, like say, the sequester carbon by planting more trees, and then this leads to more recreational areas, or conserving wetlands, and then maybe these wetlands actually do flood mitigation, I think is a really important thing. On that note, there are some new programs out to put trees in farmland. I've only just recently found out about this. So if you're interested in that, just let me know. I think I will look for a link and put that in the description as well. I can help you out with that application, or at least finding out who can do it. For you. If you're interested in putting more trees in your farmyard or in any area. In World area. It's a great program. So, but I encourage you to listen to this. It's it covers a lot of things that I have covered previously on nature based solutions.

Gonna get a little political here, soil health and government policy. It's an excellent article by farming smarter, which is a research organization out of Lethbridge. And it goes over the controversy on the greenhouse gas emissions that were or reductions that were proposed by the federal government. Last year actually, they'd been ongoing but last year things really boiled over because it was it was originally seen as reducing fertilizer use nitrogen fertilizer use by 30%. And some people either misunderstood it or just use it to rally up farmers on it is not actually what it is, is its emissions reductions by 30%. And that's a very different thing because that's just looking at how much the emissions out of fertilizer can be reduced. And now what is really fascinating in this is that and I have covered this in previous episodes that the amount of the nitrous oxide emissions and nitrous oxide is a very bad greenhouse gas because

it is much worse than any other ones in terms of its effect in the atmosphere. But the amount that comes out is very small compared to what is put down so in the prairies. It's actually only up to a half a kilogram per hectare, which in pounds per acre was the same numbers, it'd be about half a pound per acre. So that's only one to 2% of what people are actually putting down on their ground. So this is where economics don't necessarily work out for the environment because the amount that's lost is negligible, or is a very small amount of the dollars put in and the problem is the cost in trying to prevent that problem in terms of using the inhibitors is way over what you'll ever get back as a farmer now. a one time thing is that farmers can use them in the off calf program which I've previously talked about the On-Farm Climate Action Fund. So you can use them but it's only a one-time thing. So, I'm not sure it would. In my opinion, this is something that should last much longer, should be ongoing. If the government wants to reduce these emissions then they should be they should be they should be compensating farmers to put on these inhibitors. So really great article on how this how this whole system can work. And what the government needs to do to bring it into effect.

And finally, I'm going to end with one article that really cover something that I have covered previously too and is something that I don't know the answer to. It's called senators want early no till adopters recognized. So this comes right from the Senate in the in the Canadian legislature. So, when this OFCAF program, the on farm Climate Action Fund program was announced or what the details are of it. It only covers new practices. So that means that if you've been doing something for a while, it doesn't qualify. And so anybody who's an early adopter gets penalized because they can't access the funding that the people that have waited the longest can access. Unfortunately, that's the way this funding is I'm not sure where they're gonna get on this. This debate in in the Senate, but it's a good point that is being raised. I'm really surprised that it's being raised at such a high level. With that being said, if you are interested or wanting to know about this fund, it does cover the nitrogen stabilizers, soil testing soil mapping split, applying nitrogen getting into cover cropping and getting into rotational grazing. Now, as I said, unfortunately, if you've been doing it for a while, you sometimes don't qualify for it. However, if it's a new to a particular piece of land, it will qualify So reach out to me. in Alberta, I can definitely help you out with the programs that are here. If you're in another part of Canada. I can point you to an agronomist that can help you out in that particular provinces programs. So, get a hold of me, I will definitely be ready to help you out in this. And with that, I will end this episode, and I will talk to you again next time.