507 Manure is not regenerative (Agronomy Focus Feb 2023) – Plants Dig Soil Consulting Ltd.

#RealisticRegenAg | Manure is not regenerative. Now, I admit that is a little bit of a click-baity title, but I'm gonna go into this because it's seems to be misunderstood that manure or for that matter compost and digestate are these free fertilizer sources that farmers are just not using, but they're not as simple as it seems to be portrayed them. Listen further and episode for more details.

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Go more in depth on this: Can manure sustain soils?
https://csanr.wsu.edu/can-manure-sustain-soils/

OFCAF RDAR Program (Alberta):
https://rdar.ca/ofcaf/

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https://www.plantsdigsoil.com/podcast/507-manure-not-regenerative

Manure is not regenerative. Now, I admit that is a little bit of a click-baity title, but I'm gonna go into this because it's seems to be misunderstood that manure or for that matter compost and digestate are these free fertilizer sources that farmers are just not using, but they're not as simple as it seems to be portrayed them. Listen further and episode for more details.

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.

Let's dive into this. Now manure is seen as a regenerative practice and it is a good practice when it is used properly and not disposed of in an environmentally wasteful way. But it is not this perfect solution to things so I want you to think about this. All hay and silage crops, export nutrients. So, you take a crop off, you feed it to your livestock, it goes into manure piles, it gets spread back on the land. Now that's it

seems like a complete loop but isn't because there are some losses along the way. And of course the beef or whatever the animal product is sent off to consumers to eat and that doesn't come back to the land. So, it's not a complete loop. Now, if that manure instead goes to another field, it has not went back to where it came from. It is actually exporting nutrients off that land. It can be a little bit of a tough thing to think about but just let's go over it again. When that manure goes to the field that didn't come from the field that the crop is grown on that was used to feed the animals and doesn't have things taken off of it. They don't go back to it. So eventually that needs to be replaced with something else like synthetic fertilizers.

Now let's take that to another level. Let's take a cash crop could be grains, oilseeds, vegetables, anything comes off of that off a piece of land and it ends up in cities. Or in rural areas. But a lot is gonna go to cities, feeds to humans. It goes into sewage, where's the sewage go? A lot of times it ends up halfway across the world and a lot of our crops are exported. So that never comes back. And so, in this respect, now this land is sitting without extra nutrients coming in. But then the sewage is hopefully getting used properly but in a lot of cases, mostly on rivers and into oceans. So this is where we are have a are not closing the loop in our food systems right now. We're not regenerative in that sense. And so, this is why I see manure or compost or anything that is going back onto the land. It's a much better step than if it's lost or wasted. But it's still not this perfect system that is or perfect fertilizer that sometimes people make it out to be.

Now a lot of the rest of this episode is going to be about the OFCAF on farm Climate Action Fund program that's up from the federal government. Now even though I don't see it as being regenerative, or maybe not necessarily as climate smart as it appears to be there is money involved now and we can get money for this. And I'm gonna touch on synthetic fertilizers through talking about the on-farm program because there has been a lot in the media lately about inhibitors, nitrous oxide, fertilizer, emissions reductions, and it all relates into what is in here. So, we're just gonna go through this.

If you haven't heard of it, it's the On-Farm Climate Action Fund, or called OFCAF. The money is federal. And so if you're listening from somewhere other than Canada right now, this isn't going to apply to you. But it comes from the Canadian government and where it has got very confusing. So, there are many delivery agents. So in my province of Alberta, there's an Alberta wide program from RDAR which is results driven agriculture research, they are administering the program. Now in other provinces, it's different organizations doing it. But there are also programs that are commodity specific the Canola Council has one that only covers a very specific portion of the nitrogen management. There's one from the CFGA. Canadian Forage and Grasslands Association and it only covers rotational grazing, but it only is applicable in some of the provinces Alberta is one of them. And then there is a program from EcoCert which relates more to organic growers and as far as I understand it is Canada wide but it is more tailored to them.

What makes it really confusing is that each program even though the cover the three main pillars are just cover crops, nitrogen management and rotational grazing. They have different rules. And this is where it can get very confusing. And the best thing is to contact the people in your province in your area and get them to explain or get them figured out In Alberta, I can help you out. I know which ones are the best ones to steer you towards. I mainly work with the RDAR program, but there are ones that might

work a little better for you. And I have contacts of people that work in different programs. And I can refer you so that is how this On-Farm Climate Action Fund works.

Directly related to the topic of today's episode with manure you can get funding to help us in hauling and application of manure. But there can't have been manure on in the past 10 years. And they're very clear they do not cover the costs of the amendments. It's just for hauling and application but they will help you with soil sampling help determine the rate.

Now let's discuss nitrogen stabilizers. This has been a big thing in ag media and the media in general with this targeted 30% reduction in fertilizer emissions. It was misinterpreted as meaning 30% less fertilizer available to be used by farmers. But that's not what it means. It means the emissions that come from fertilizer, trying to cut those down by 30%. Now, there are stabilizers that can help prevent the gassing off of nitrogen. They do work, but the issue is that they don't always economically pencil out. So there can be losses of nitrogen and of course that is money lost from a farm. But the added cost of using the stabilizers doesn't necessarily make up for the losses.

Now, right now for this coming year. These can be added, and the costs can be covered by this funding. So if you're interested in trying them, this is a great year to try it. There's something called Environmentally Smart Nitrogen which is starting to ESN. It's also known as a polymer coated urea and it's been in use for a long time. There is a cost premium to it. And again, the added cost of it doesn't pencil out for most crops. In my experience where it does pencil out is in things like potatoes where the benefit that I'm looking for in it is that it's a slow release, or it's a slow metering out of it, which is actually better for potato growth than having everything available all at once. And so that can be covered but they did change some rules this year. They're only going up to $4800. So, they seem to have been some changes in the rules. So I would caution you that I'm telling you what, I see it as now but things can change and how I interpret it now but sometimes applications go in and they see things differently. So that is the main thing that I'm going to be talking about relates to today's episode on nitrogen manure, fertilizers and emissions

Since the nitrogen management component of the OFCAF program has so many different things in it I just want to touch on the other parts of it. You can have you can get funding to help with custom application or equipment rental to shift demanding from broadcast to shift to sideways fertilizer or to start split applying your fertilizer. And my issue with this is that it only covers custom application or equipment rental. So it doesn't involve any changes in equipment that you have on your farm or modifications or new equipment you get. So it's only gonna help you for one year and trying this. Anyways it is available if it's something want to try so it is there. It would be most applicable to coming spring season. There is soil and tissue testing is covered in this to support the rates for the above practices. So another little thing in there that has some rules attached to it.

A very obscure thing added into the nitrogen management part is increasing perennial legumes in the rotation. In the module covers just the establishing of them, but also within the grazing component it covers increasing the composition of pastures. Now since they're looking at nitrogen, it has to be at least 50% legume and this one does cover the seed costs, but it only covers custom application or covering rental. So if you do it yourself, it doesn't count or it doesn't they won't cover those costs. So another

little part of it that unfortunately, I wish they would cover the buying the equipment because I think it would help people to use these more but and I'm gonna cover this in a future episode more on the soil testing and mapping. It doesn't necessarily apply to what I'm talking about today with fertilizers and manures and stuff because it's more about putting them on the ground. The soil testing and mapping it's more about learning how to use them. It's more typically done after harvest which is in the fall. Now if you are interested in trying to do this right now or getting an application get a hold of me, I can help you out.

I just want to reiterate that what I'm saying is how I'm interpreting it right now, and how the rule stands right now because they can change the rules. We can put things in with applications and they can come back in and say that what we've interpreted it is not how they see it. So this year, a different rule is, too, that everything has to be approved before you can even go out and buy things. So, invoices have to be after the approval point. So, it's important to get in early. We can put them in as early as February 13th. And it'd be really nice if we had approvals before the growing season begins. So, get a hold of me. I'd love to help you out on this. And an important thing is that this funding covers my costs the cost for me creating plans helping you with the application and so it's a great time to start with independent agronomy. One last thing don't delay on this when the money runs out. That's it. It's not a guaranteed thing. So first come first serve. So, get a hold of me. I hope you know a little bit more about nitrogen manure, compost, all the different ways that we can get nitrogen onto the land and have a little bit of funding to help you try out some new practices. So, I will talk to you next time.