

Vegetables Session Q&A

What's the decomp rate on the wool?

9-0-2

How using wool can increase productivity of urban farms in conditions of big and large cities (like New York, New Delhi or Beijing)?

Wool adds organic matter into the soil which is always good. It has the benefit of giving good nitrogen with out adding any phosphates that are often seen in composted manures. It also does not have the sales that manures have as well.

Some of the key benefits are the water retention and opening up the soils for air and water. The specific benefit may vary by soil type and what is already in the soil. High organic mater soils will benefit less from wool. Low organic soils will do much better.

Why did the bacteria have less cull and larger size?

We theorized that it is the drought tolerant bacteria that helps protect the roots during drought. This allowed the plants to do better in the low water environment.

Do you know of any wool pellet sources in South Dakota?

I am not familiar with any there. There are several small producers scattered across the country. Wild Valley Farms is Coryn Utah and ships all over the US and overseas. Just search online for pelletized wool. Keep in mind many are expensive. Wild Valley Farms is probably the one of the cheapest I've seen.

<https://www.crookedfenceranch.com/>

https://chivillabay.com/products/wool-pellet-fertilizer-for-plants?srsltid=AfmBOoo92FqJ-t_ERKBWykh05Sy06uxWSNHCKo1iYDkAEdBura6cURUO

How about just shredding some dirty wool, crutching, etc and not pelletizing it?

This can work. The problem ends up being that the wool will likely get bound up in the tiller tines. It is also not as concentrated. You will also have the issues of raw manure going into the soil as well as any possible weed seeds and other material that gets caught up into sheep wool.

What is the time frame for breaking down nutrients to make them useable for the plants?

Wool pellets are considered slow release. They don't dump all the nutrients at once like Blood meal will. They break down over the season giving a gradual feed.

Does wool compost and break down?

Yes. It is a keratin-reach material.. so it is a slow release fertilizer.

I'm experimenting with pelletized wool in my seed starting mix in place of perlite and vermiculite, any studies in this area?

Yes, Perennial Plant Nursery here in Utah did a test with 5% wool in potted plants. They found the tomatoes were ready to sell in half the time of normal potting mixtures. This was not a full on scientific study. If you go to Wild Valley Farm website he has some information on informal studies that have been done with wool.

Plastic Mulch? Like petrochemicals?

Plastic mulch is the specialized sheet plastic used to cover the ground for planting crops. I'm not certain of the specific make up of the plastic. It is very common use for growers. There are documented advantages to using this plastic mulch.

Are you recommending increase using organic fertilizers for improvement soil health?

We love using fish emulsion, its a good nitrogen source and encourages the microbial health of the soil

What specific cover crops are you using in walkways? Do you mow it?

We use barley primarily, but it's not mowable until you want to terminate it. We are switching this year to clover because of its mowability.

So, probably UV resistive, but are leaching and microplastic contaminations monitored?

We monitor our soil test very regularly and we do work very hard to make sure we have removed all plastic before fall. We have used many biodegradable options out there but with our wind they do not work. Johnnys has a new mulch that we have transitioned to that is almost 50% less plastic but also hugs more closely to the soil to prevent ripping and tearing. Ultimately it's a question of method choices and for some it doesn't work and there are options that are better and work great in other places. I would look into the biodegradable/paper options if plastic use is a concern of your customers!

Can fertigation be consistent with "organic"?

I am not organic but I do think it is allowable

What are the cover crops you prefer?

I love the garden cover from true leaf especially for my small farm

Is there a good steppable ground cover?

Clover is what was recommended to me

Any thoughts on wintering poultry (Layer hens) in a high tunnel to improve soil? issues with ecoli+?

I have actually seen this done. It works well and if you put them in right at the end of the season the chicken will lower the pest problems for the next season. As far as ecoli, the normal rule is that the manure should be incorporated into the soil and then wait for 120 days before planting.

Instead of tilling, have you or any of your presenters just planted into the cover crop, once it expires? There are tools like crimpers, even tarping over cover crops in high tunnels.

I haven't used crimpers or no till with cover crops because I usually need the organic matter that tilling in the top adds. I did try and cook down the cover crop in the tunnel once but it was taking too long to terminate.

I have found that aftercare has been the most difficult part of grafting. Do you have any suggestions for keeping the seedlings moist? I have been using humidity domes. Would misting be better? It seems like the scion dies before the graft can heal.

Yes, you are right. The healing part is very challenging. Kansas State has very nice materials on that. Please reach out and I can share some of the resources.. milena.oliveira@usu.edu

What is "self grafted"?

It is one variety used a scion and rootstock too.. again, that wounding process make the plant be stronger..

Do the grafted plants, i.e. watermelon, need more nutrients than non-grafted plants? and if so when is it better to increase in the beginning of the season or do we increase the amount as we side dress during the season?

There are some concerns about it but here in our trials we did not see a difference..what I have seen is that go slow with N in the beginning and increase that in the production phase.