

SARGENT CO. SOIL HEALTH FIELD DAY

9/9/2015

DELAMERE, ND 60 survey responses collected and compiled 10/20/15 by CL

(LOW)

(HIGH)

FIELD DAY CONTENT	1	2	3	4	5
How would you rate the format of this field day?	0	1 (2%)	5 (8%)	39(65%)	15(25%)
How likely are you to attend a similar event?	1(2%)	4 (7%)	14(23%)	25(42%)	16(27%)
Overall, how much did you learn from this field day?	0	0	15(25%)	39(66%)	5(8%)
How likely are you to share the information that you learned at this tour with other producers:	0	0	7(13%)	39(71%)	9(16%)

LEARNING	1	2	3	4	5	Increase in Knowledge
My Understanding of management options for saline soils:						
Before the field day	16	20	18	3	2	39%
After	0	2	23	29	6	
My understanding of sodium layers in soils:						
Before the field day	19	27	10	2	1	45%
After	0	2	24	30	4	
My understanding of cover crop options:						
Before the field day	8	23	19	9	1	35%
After	0	1	13	37	8	

	1	2	3	4	5	Increase in Knowledge
My understanding of soil loss and erosion:						
Before the field day	4	12	24	15	4	24%
After	0	0	16	27	16	
My knowledge of NDSU Soil Health research projects						
Before the field day	20	21	12	5	1	39%
After	0	10	21	22	6	

The most important things that I learned from this tour:

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- I learned that cover crops do help the salinity situation and soil moisture management is a crucial part of reclaiming saline areas of the field.
- Water management is key to controlling Sol. salts and Start identifying your sodic spots for future management.
- The history was a good reminder... we get tunnel vision that this wet cycle is going to stay forever but history shows it will not stay this way....
- The science of Agriculture is find positive ways to improve the productivity and conservation of the soil.
- Getting into the pits Seeing the demonstrations of water movement in different profiles
- How bad the compaction is in the fields.
- That no till works the best w/ cover crops when in that situation
- Benefits & downfalls of no till. The important different types of cover crops. How saline & sodic soils will affect your crops.
- How to fix saline & sodic soils
- The difference between sodic & saline soil. How different soil structure affected how quickly water moved through the soil.
- The good uses of no till
- How cover crop & organic matter. And to let the soil reset itself.
- The good affect cover crops can have on soils
- The different horizons and how they look
- Cover crops are very important to keeping soil healthy, takes a long time to fix bad soil
- How to manage sodium & saline soils
- Ways to manage saline areas, such as no till farming or using cover crops
- That no till may have better water infiltration
- Certain ways to approach saline & sodic soils, how to prevent and manage your soils from saline & sodic soils
- Importance of cover crops & characteristics of saline & sodic soils
- How important cover crops can be
- The sodium layers in a soil
- Ways to help with saline & sodic soils. More options of cover crops
- Every option you try for dealing with saline or sodic fields are going to have advantages and disadvantages
- How to take the best approaches to salt and saline issues in soils. How cover cropping is relatively a simple task, yet the benefits are extraordinary.
- How the soil feels throughout changes in the layer, actually hands on

- No till helps get the salts out of the soil, there is a hard layer that makes tilling not make a difference on the land
- Know how to deal with saline & sodic soils and not make them worse
- How to make a salty soil profitable again, how to use cover crop, soil erosion
- That it is very important to manage your sodic & saline soils. You need to do more no till and plant cover crops on these types of soils
- That how much soil layers can range from a short distance. Also learned how sodic soils have on your field
- How important cover crops are as far as water filtration
- Soil levels
- Just because your land may be in high saline or sodic concentration there is always hope with cover crops to renew soils. Different types of soils hold water longer
- That we lose the thickness of a dime every time we dig the ground
- How to manage saline & sodic soils
- Digging the heck out of the ground doesn't fix the problem for saline & sodic soils; cover crops are strongly recommended to bring important nutrients back up to the top soil; it takes time to fix soils with high saline and salinity
- How to manage some saline soils. How and when to use cover crops
- That soil conservation isn't just a thing practiced by soil scientists from NDSU, but by farmers. We are still in the early stages of this practice, but younger farmers and even some older, are starting to show interest and give it a try
- Dispersion, how 20 feet away the EC rating could be way different
- That soil management has become very important over the past years. Since 1960 we have lost about 18 inches of topsoil, therefore no till has become a huge factor in farming
- That cover crops and reduced tillage help soil health the most
- How to improve soils
- Why things don't grow by ditches
- Cover crop options
- How much cover crops help in pulling the salts out of the soil and how tillage is not the answer to sodic soil
- Deep cultivating isn't always the answer
- How much a cover crop and no till can help with a saline soil
- How to use cover crop to draw the moisture back up into the soil
- That cover crops can take care of salinity extremely well and soil erosion is about a dime width every year.
- Tillage isn't always the best fix for hard packed soil
- That I make the soil worse for salinity when I chisel plow low spots but actually can make them better by planting cover crops

Based on management options discussed today, what management strategies might you try on your farm? Why?

- I may look at trying some rye on our tougher ground at the very least as a cover crop into the spring. We have some ground with saline issues and IDC issues in soybean so maybe I can help two problems at the same time even though the neighbors will laugh at me. They will only laugh at me in public and then ask me tons of questions in private after harvest! Wouldn't be the first time! Haha!
- Less tillage and more diversification in my mixture. Keep soybeans off ground that it can't handle and try to rehabilitate that ground before I do come back with soybeans.
- I'll leave this response to our renters with communication between us as they learn new options.
- try to break up compaction with cover crops
- Maybe use a bit more of cover crop to help keep topsoil/manage water
- I would consider trying more no till because I feel that is good to try & preserve the land we have to the best of my abilities
- Cover crop, try to see how it affects yield
- A strategy that my farm already uses is no till. One we would try is to plant more cover crop in troubled areas.
- Farm management of no till it's better
- No till farming because it is kind of a band-aid for the soil
- Have an agronomist look at it yearly because they know more
- Planting barley on our saline soil
- No till and having cover crops on as much as possible. Tilling is just a temporary fix and mixes things up. Having cover crops will help with erosion and keep the soil healthier
- Might try cover crops & no till. They seemed to have a big effect even just 1 year of not tilling
- No till farming because it can increase the soils organic matter over time by not disturbing the living organisms that live in it. It can also reduce soil erosion.
- No till small grains to get something growing
- Cover crops to help with erosion & keep water levels down
- Cover crops, if I have a field with poor soil structure that might help it in the long run
- More cover crops because they keep the topsoil from blowing and can help your soil in the long run
- Soil testing, seeing how much sodium you got in your dirt to see if you need tillage
- Possible no till, see if it helps with the production of crops
- Cover crop, because even though it may not work in all fields it seemed to have the best results with minimal expenses
- Cover cropping; we have similar issues on some ground that won't allow crops to grow anymore. Till less
- I would try tilling to keep water out
- No till because if it's what can get the salt out of the ground then it makes sense
- Our farm operation already uses the cover crops and no till

- Do more no till. It saves time and money and it's actually benefits the soil
- I would try no tilling and planting cover crops. I think this would help a lot because it seemed to be working well where they had the tour
- Try seeding more cover crop especially that cereal rye because how effective it was
- No till, to see if we get a better crop
- More cover crops because they help soil structure and filtration of water
- I might plant turnips or something in the lower higher concentration areas
- Ditching, t help reduce sodic soils
- Cover crops, it fits the kind of farming I am involved in
- Cover crops and start putting smaller grains back into the rotation. All we do is corn and beans which are not producing at max proficiency because of the loss of import nutrients
- I would like to try and manage saline soils on our farm. Using water to help keep the saline down in the soil and prevent it from coming to the surface
- Cover crop and no till is a good way to start bringing the soil quality back to a healthy point in a field that is lacking
- Drain tile and cover crop in my rotation
- No till and try growing alfalfa on the saltier soils. Other crops tend to not grow as well and will have lower yields
- Try to reduce tillage when possible and use cover crops
- Cover crops, bring back the organic soils
- Cover crop, no till
- Different crop rotations & no till practices to try and gain ground back
- I don't have a farm
- Cover crops
- No till because of the way it worked on the tour
- Probably nothing because we really don't have a salt problem
- No till if soil starts showing signs of high erosion or saline or sodic properties
- Cover crops over the winter because it would increase soil profile and water infiltration
- I am going to try planting radishes in our saline soils spots

What topics are you interested in learning more about?

- I would be interested in a class on how to use all the EC maps, yield maps, soil maps, soil sampling information and other data to make a usable precision farming plan that is profitable. I do a lot of this already but would be nice to have an open discussion with data to back up that all this is worth it and does have a significant return such as how to add check strips into the prescription or things of that nature.
- 5 year program to rehabilitate the very saline areas such as Chandra's location.
- Improvements in reducing water on the farmland, which impact productivity and cost.
- Best management practices of cover crops - what to plant, when to plant, when to control so as not to compete with desired crop, economics of them
- Calcium carbonates vs. salts and sodium
- The NDSU projects
- Still want & need to learn plenty about soil types, along with learning more about sodic & saline soils.
- Cover crops
- How no till & cover crops affect the land
- No till
- How chemical affects water
- Cover crops, EC readers
- Cover crops
- Cover crops, faster ways to get soil healthy
- Is there any other ways on managing the soil and how long will it take for the water problem to go away at the field we went to
- Cover crops
- The way cover crops can be profitable on a farm
- More options to cure saline and sodic soils
- Sodic & saline soils
- Saline soils
- Soil losses and erosion, cover crops
- Soil productivity
- How to manage saline & sodic fields and which is going to be most affective
- Cover cropping, types t plant, timing, which crops will give me best results for a situation at hand. How to reduce compaction layers
- The changes in the salinity

- Tilling and what grounds it does help
- Soil layers
- Cover crops
- More about saline & sodic soil management
- The different cover crops
- Different types of cover crops and what those differences benefit
- Soil
- Other cover crop options
- Water movement
- Cover crops
- The different farming methods that can be used when the ground is really hard and doesn't want to break apart except for in big chunks. This is something interesting to me because we have no ground like this where we farm
- Cover crops and the possible methods that can be used with them
- No till and cover crop prices and strategies
- How that equipment pulled behind the pickup works
- More about saline & sodic soils. Still don't have a full understanding
- How to deal with crop residue in no till fields
- Cover crops
- Salts, sodic soil
- Managing saline & sodic soils
- How high of levels of EC can crops handle
- No till practices
- The amount of time it takes to get a bad soil like the ones we had seen
- What crop rotation to use
- Cover crop applications. The Varrys system and how to prevent saline and sodic characteristics
- Cover crops and sodic/saline soils
- Cover crops and more ways to get rid of salty soil

Comments or suggestions:

- I enjoyed the field day. I have never been to a soil related field day and I felt it was a worthwhile investment of my time. I think the combination of soil pit/in-field results along with a classroom discussion was great. If you could have weather like that for all the field days would be great as well!
- It was unfortunate that Darrel's presentation didn't work as well. Does he have a u-tube version available? If not should get him and Franzen together to combine those very good presentations into a series. Tough to fight the birds and HWY traffic.
- Very nice tour. Hands on are always good.
- It is wise to continue to make progress with new methods to advance agriculture.
- A porta pot would have been helpful. The birds in the building were very distracting. The speaker system needed to be louder for the highway traffic and the bird noise. The grad students should have been accompanied by an adult to keep the conversation going.
- This was a very educational tour that broadened my knowledge in my field of interest.
- Let us ride on the tractor
- I learned a lot in field, more field trip
- Very well put on
- It was set up really nice and all the presentations were very informative
- Go to more plot tours, get out more and learn
- Had fun, hope we can do more things like this
- I overall enjoyed our experience out in the field learning from real life situations
- It was a pretty interesting field trip and I like that it was hands on
- Very good field trip
- Thought the field day was good
- Very informative day
- Let's do more field trips
- The field day was very interesting and was a great learning experience
- Speakers to be louder
- I would recommend going to one of these tours to other students
- I really liked our trip, it was great!
- Great field trip
- I took in a lot from this tour and hope we can go to more on the future