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No-till farming continues to gain popularity on farming operations in north central Oklahoma. Many tillage producers are contemplating switching to no-till and for those of you who are, this might be of interest.

The following is a "give and take/ back and forth" dialogue between [Rick Howard](#) and [Kim Metcalf](#) on what we see and have seen about no - till. It is by no means all inclusive.

No-till Thoughts

Rick: No-till is not cheaper than conventional till.

Kim: I think this is very true the first 3 to 5 years. During this time period it may not be more expensive, but it will not be cheaper. A producer's out of pocket expenses may "seem" more because of the chemical cost, but your true cost will probably be about the same. After 3 to 5 years as your soil changes and you build up ground residue I think these expenses may come down in some areas and some years where it actually might be a little less expensive with no till.

Rick: No till takes a lot of planning.

Kim: I agree. Because wheat after wheat after wheat (or any repeated crop) with no till does not work because of disease and pest pressures. You have to rotate crops. Because of chemical residuals it takes planning to successfully no till. There can also be benefits to planning which crop follows or precedes another crop, i.e. soybeans preceding corn can add nitrogen to the soil for a high nitrogen use crop.

Rick: Need to start with a soil sample program.

Kim: A soil sample program needs to be in place in both tillage and no till. The added emphasis in no till would be because of the rotation of crops. The fertility needs of wheat are not similar to soybeans for instance.

Rick: Correct the pH before starting.

Kim: If possible this is a good idea simply to get a chance to get the lime in the ground and working sooner. Liming is still effective in no till situations it just will take longer to get worked into the soil to start taking affect.

Rick: Take care of drainage problems (terraces, water holding areas and ditches)

Kim: Good idea. Chances are at some point you are going to have to fix these problems down the road again even in no till but not as often, (less run off).

Rick: Diseases must be watched more carefully.

Kim: Without a doubt diseases, (especially in wheat) are more prevalent in no till due to the crop residues hosting the different pathogens.

Rick: Seed treatments are a must.

Kim: You can raise a crop without treating the seed in no till.....but it will be very beneficial and cost effective to treat your seed in no till, especially wheat.

Rick: Variety selection in wheat seed needs more attention.

Kim: One should probably stay away from any variety that does not have rust, or any foliage disease resistance.

Rick: May need to spray as often as you would till.

Kim: I think a producer would average one less trip over a field with spraying than with tillage....BUT.... it is a huge misconception to think you can spray it once or twice in the summer and be in good shape. In general treat spraying as you would tillage. Just as you prepare the seed bed for planting with tillage, prepare it with spraying, including that final trip over the ground to START CLEAN!

Rick: Weeds need to be sprayed small, no more than around 6 inches tall.

Kim: This is a monster point! Labels say 3 to 4 inches tall! There is absolutely no reason to let weeds get to be 4 to 6 foot tall in field. By spraying weeds when they are small you can lower your input costs, in many cases lowering the rate of chemical or not having to add another chemical to the tank mix.

Rick: Rotation is a must.

Kim: If you are not going to rotate, do not go no till.

Rick: Plan on a rotation early.

Kim: Plan your rotation 18 months to 2 years in advance.

Rick: Plan on a chemical program that allows for the rotation.

Kim: Got to.

Rick: Need to add 30% more nitrogen in applied over the top (liquid or dry), due to residue tie up.

Kim: This is true in those first 3 to 5 years as mentioned earlier. I believe that after you have built your soil and your organic matter this may not be necessary. At some point the crop residuals will start giving back that nitrogen. Where that point is, is not known and probably varies field to field. A good soil sampling program will help find that point. Type of application will probably help with this. Using a coulter to apply gas in crop, using pellets so they fall through the crop residuals, banding or strip nozzles with liquid nitrogen, etc.

Rick: Start with about a 3rd of your acres.

Kim: With all the information available today, as well as access to crop consultation, etc., I am not sure that if someone truly wanted to go no till, he shouldn't go all the way. It is a good question. If someone had access to a custom planter, maybe he should get his feet wet with an 80 or a quarter. Probably as many opinions as there are people.

Rick: It takes 3 years to see the results of no till.

Kim: Part of this 3 year wait is the fine tuning of the producers management skills on his fields (including picking the proper crops for his rotation), and that is a very real thing.

Rick: Keep cattle off until the 3rd year.

Kim: I think if you really get into no till and crop rotations, cattle will become less and less attractive economically on crop acres. If you are a true cowboy, no till may not be the way to go. I think there is some controversy among the no tillers as to how much compaction cattle actually contribute to the soil. It is certainly not the deep compaction of tillage.

Rick: No till helps with erosion and water holding.

Kim: Without a doubt it does. We lose more soil from wind and water erosion with tillage than most people dream of.

Kim additional:

When considering no till, getting the proper planting equipment is extremely important in my opinion. Proper seed placement with depth control, cleaning away residue, seed to ground contact, is where it all starts and a lot of yield is made. We see a lot of "hair pinning" in hard or high residue soil that keeps seeds from emerging or at least emerging equally. A good no till drill and or planter is very important and worth the money.

Preparing winter fallow ground in the fall is very important, for better crop yields, preparing the proper seed bed, and reducing weed resistance.

With more and more no till, if we do not use glyphosate (Round Up) properly (use the proper rates, spray when weeds are small, etc.) we will lose that chemical to weed resistance. We are seeing it every day in our area and now have to tank mix with every load. It is every ones responsibility to see to its proper use. No till will go out the window if we don't. Sometimes I worry we are already too late.

If you're going to be a "low rater" please do not go no till.....for every ones sake.

I believe no till is a very viable cropping system for our area. I think, unless we lose glyphosate, it is the way to farm.....but you have to be committed to it. You have to be willing to give the time, money, management and energy to the system to be successful.