
Tag: Rolling-Crimping

SPRING BUS TOUR SENSATION; CAN ROLLING-CRIMPING HELP MANAGE COVER CROPS?

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On June 13, UVM Extension and the Champlain Valley Farmer Coalition

teamed up to host a bus tour to six farms throughout Addison and Chittenden Counties highlighting spring conservation practices. The tour showcased manure injection, cover crop and no-till systems, pasture management, and nutrient management on dairy and vegetable farms. It was a long, information-packed day. One of the most amazing things was that all of the host farms had the same general message: they care about our environment, and are working hard, taking risks, and investing a lot of time and money to try to be the best farmers they can.



One tour participant commented that they were flooded with information and hadn't realized just how much **farmers are standing up and taking a leadership role to protect water quality**. The event was a great example of how farmer organizations and UVM Extension can work together to support the agricultural backbone of Vermont.

One of the demonstration projects on the bus tour was a trial of rolling-crimping a winter rye cover crop, using farm built equipment. Rolling-crimping works best on

a more mature cover crop, which may be useful in a spring like this one if winter rye becomes thick and tall because spring rains prevent termination. Rolling-crimping also helps facilitate the mulching effect of the cover crop and, with correct furrow adjustment, should address issues of light penetration to young seedlings.

Separately, Jeff Sanders, from UVM Extension Northwest Crops and Soils, received a grant to purchase and demo a planter-mounted roller-crimper. This is actually a shield and two disks on the front of each planter unit, as opposed to a single roller-crimper. These attachments are angled to part the cover crop material and roll it away from the furrow where the corn is planted.



No-till corn planted into tall winter rye cover crop in Addison County clay soil using the UVM planter with Dawn roller-crimper attachments on the front of each planter unit.

We used this technology on two Addison County farms totaling around 50 acres. After 4 hours of adjusting the planter, we were successfully rolling-crimping! One farm field had manure injected several inches below the surface a month before planting and another field had large scale cover crop trials. When compared to a regular no-till field, which can look chaotic, there is a very satisfying symmetry when the field is roller-crimped.

However, we had some setbacks while planting. There was so much residue that every few acres we had to stop and clean the closing wheels because at least one would plug with winter rye. Specific closing wheels seemed to be plugging more often, and we will have to investigate that further. We also had issues getting adequate down pressure to crimp the rye stalks properly; this may not be an issue with a heavier corn planter.

We will monitor the fields over the next few months, observing changes in water infiltration/retention and drought stress response, weed and pest levels, nitrogen availability, and corn yield.

Thanks to Jeff Sanders and the participating farmers! We look forward to sharing results and to future trials.


Videos of the planter in action:

Planting with the roller crimper - from inside the cab



Roller Crimper No-Till Corn Planting



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