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Roller Crimping Cereal Rye - A Real-World Farming Example

Roller Crimping Cereal Rye



Benefits of using Cereal Rye as a Cover Crop

Farming can become complicated in a hurry with few cut and dry answers. As the saying goes..."If it was easy, everyone would be doing it". However, there are some general rules that we can focus on to maximize yield and quality for crops grown in most regions.

Maintaining adequate moisture levels for a growing crop, increasing nutrient

cycling and availability, and reducing weed pressure are the three objectives that most farmers spend a significant amount of time, money, and resources on. When so much attention and time is focused on these factors, it makes sense to implement practices that address all three issues simultaneously. Roller crimping cereal rye prior to planting a cash crop is an excellent way to accomplish all three goals. This is the practice of bending and crimping the rye stalks with a large roller, effectively matting the rye down and stopping the flow of nutrients through the plant.

After roller crimping, the large amount of residue acts as a mulch that helps the soil retain more moisture, and increases water infiltration. This residue will also dramatically lower soil temperatures during the hot summer months by covering and protecting the soil surface. This reduces moisture loss from evaporation, while at the same time facilitating soil temps that are conducive to healthy root growth. Plants thrive in conditions similar to humans. Ask yourself: "which conditions do you tend to thrive in?"...73 degrees or 130 degrees? Plants are no different in this aspect.

Having a crop such as cereal rye growing at a time when the field would otherwise be fallow allows for continued nutrient cycling through the relationship the plant has with microbes in the soil. By keeping living roots in the ground throughout most of the year, we can maintain and regulate soil fertility in a way that allows our cash crops to be fed with a constant, and steady release of plant available nutrients at just the right time, and in just the right amounts.

It does not take a scientist to observe that nature fills in areas of bare soil almost immediately. Because of this, your first line of defense against weed pressure should always be competition from other plants. This can be anything from native perennial plants, to an annual/biennial cover crop that will be terminated prior to a cash crop. Allowing the cereal rye growth to reach a stage in which mechanical termination with a roller crimper is effective (flowering stage), also means that the rye has had adequate time to grow a significant amount of biomass. This is important because the more

residue left on the soil surface, the better the weed suppression throughout the growing season. Roller crimping forces you to allow the rye to accumulate significant amounts of biomass before termination which is a good thing for both weed suppression and retaining soil moisture.

Real-World Example

We recently had the opportunity to visit a progressive farm that was crimping cereal rye prior to planting soybeans to attain the goals described above. Crimping is not a complicated process and with the right management techniques it can be an extremely effective way to manage weeds, soil moisture and fertility.

Due to a late fall planting of cereal rye and a slow start to spring here in Nebraska, it was June 4th before the rye was ready to be terminated with a roller crimper. Crimping is most effective when the rye reaches anthesis.

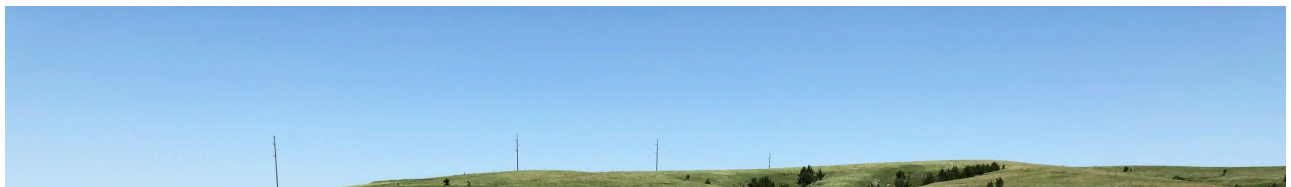


Simply stated...when the rye is flowering and shedding pollen, it is ready to be crimped. If you attempt to crimp prior to reaching the flowering stage, the rye will stand back up within a day or two and keep growing which is why timing becomes a critical part of crimping success. This farm uses a rear mounted, 30' wide roller crimper built by I & J manufacturing.



After making a few passes around the field to create a border, they started at one end and made their way through the field in the same fashion you would use to plant.







You will often see roller crimpers mounted on the front of a tractor with the planter on the rear, allowing crimping and planting to take place in one pass. This is an ideal situation but not always practical when utilizing the scale and size of today's equipment. While this farm's crimper is 30' wide and is on the larger size relative to other crimpers, their air seeder is 42' wide.





Because of this they were not able to plant in the same direction the rye was crimped because a portion of the planter would be going through rye laying in the opposite direction. This can be problematic due to the tendency to plug up the planter with residue. The solution was simple...roller crimp the entire field, and plant at a 45 degree angle.



This allows ease of planting regardless of the direction the rye is laying down. Planting at a 45 also has the added benefit of cutting through the rye stalks which helps with termination.

Ideas for Improvements

Areas of the field that had a thick stand of rye tended to crimp significantly better and remain completely flattened. It was quickly apparent that a healthier, thicker stands of cereal rye worked much better for mechanical termination than “thin” areas of the field. Because of this observation, some situations would benefit from irrigation when appropriate and a light fertilizer application so that roller crimping is more effective. The farmers noted that they wish they had run 30 lb. of N through the pivot during the growth phase of the rye in this particular field.

The terrain of the field in certain areas may have affected the ability for the roller crimper to effectively reach and crimp the rye when rolling over uneven ground. Keep these factors in mind as you attempt your own crimping and utilize this technique in areas which are favorable for success as you learn the process.

Summary

Many of you are well aware that soil health is a common topic of discussion these days in the farming world and is gaining considerable attention in the media. There is a compelling amount of research showing that soils rich in minerals and full of life, produce higher yielding crops that are more resilient to pests and disease...Funny thing is...**We already know this!** Good ground grows good crops! Our job as farmers is to create a field environment that is conducive to flourishing soil life. When we get the soil right, it becomes a compounding effect in which we get a 10x return on our investment whether that be in inputs or management practices. Now that should be music to your ears...and pocketbook!

Shop our high quality cereal rye, shipped direct to your farm at significant savings. Lock in your price today!

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Operating in Nebraska, USA

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