

Broadcast-seeding cover crops

Editor's note: This is the third in a four-part series on cover crop seeding techniques. Our previous articles covered overseeding and aerial seeding. Next month: drilling.

BY LIZ JUCHEMS

COVER crops continue to be a popular conservation practice discussed at meetings, conferences and field days. They are a critical tool listed in the Iowa Nutrient Reduction Strategy for their ability to retain both nitrogen and phosphorus in the field. One important decision is how to select a seeding method from the variety of options: overseeding, broadcast seeding, aerial seeding, drilling and more.

Broadcast seeding extends the fall growing season for cover crops when the seeding is completed before cash crop harvest. As with overseeding and aerial application, adequate soil moisture is needed for good germination and quick establishment of the cover crops.

Broadcast seeders may be mounted to ATVs, tractors or other implements to help cover large areas of ground. It is important to calibrate the seeder to meter the seed at the desired rate and pattern of dispersal. If using a mixture of cover crops, it is important to remember that the species have different weights, which will impact the spread pattern. Heavier seeds will spread further than lighter seeds.

Hand-broadcast seeding is a great way to establish small plots to try seeding cover crops at different times or to observe how different species perform. This method is used in a Conservation Innovation Grant project funded by the Iowa Cover Crop Working Group (ICCWG) and Natural Resources Conservation Service, which



SEEDING INTO BEANS: If you seed a cover crop into an existing soybean field, sow it about a week before the leaves drop, which often occurs in late August or early September.

evaluates the impacts on soil and water quality, as well as crop yields under cover crop mixtures, single species cover crops and no cover crop check treatments.

Between Aug. 25 and Sept. 4, ICCWG staff traveled the state to broadcast-seed cover crops and collect water samples. The broadcast seeding was done by hand. This was the third seeding season at six Iowa State University Research Farms located near Sutherland, Kanawha, Nashua, Crawfordsville, Chariton and Lewis.

Before heading to the field, a seed



SEEDING INTO CORN: Mid-August is often a good time to seed into corn, although germination issues could arise due to a lack of sunlight getting down through the corn canopy.

packet for each row was weighed and labeled. Weighing out each packet ensures the desired seeding rate per row, similar to calibrating a mounted broadcast seeder. For the grant, the seeding rate is 1 million seeds per acre.

After checking the plot map, the team loaded the packet bundle into a tool pouch, and one person took the end of a tape measure while another held the other end ready to announce when the first had reached 25 and 50 feet, respectively.

Ripping off one corner of the packet,



SEEDING RATE: It's important to seed the right rate per acre with covers. If you want to establish a small test plot, Iowa Learning Farms has a Test Strip Calculator Tool available.

they walked backward down the row, sprinkling out seeds. At the end of the plot, they would reach for a new packet and return down the next row until the plot had been seeded. The process continued until all seed packets had been dispensed.

Iowa Learning Farms has a Test Strip Calculator Tool at extension.iastate.edu/ilf/content/cover-crop-resources. Input the plot's dimensions, the seeding method, and one of 14 cover crops to get the amount of total seed needed.

Juchems is the ILF events coordinator.

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