

Practical Advice on Seeding Cover Crops into V2-V6 Corn

Prepared by the Oregon Ryegrass Commission for the Soil and Water Conservation Society's July 2020 Conference Symposia session "Inter seeding Cover Crops in Corn to Address to Address Weather Changes, Increase Efficiency and Communicate with Non-Operating Land Owners." This SWCS Symposia session was part of the "Soil Health Resources, Indicators, Assessment and Management" conference track.

Buffalo Lake, Minnesota, farmer Brian Ryberg inter seeds cover crops into V3-V6 corn while side dressing nitrogen.

In the fall, we strip-till for our corn, soybeans, and sugar beets and then plant our crops in the spring on 22-inch rows with a 36-row planter in the strips.

We inter seed annual ryegrass, radish, turnips and rapeseed into corn at V4 to V6 as we side dress nitrogen. With the help of a Minnesota Corn Growers Association Innovation Grant in 2017, we purchased a Hiniker seed box to mount on our 36-row side dress bar.

Our goal was to establish a mixture of cover crops at V5 to V6 stage.

The cover crop emerges, goes dormant until the corn leaves begin drying down and then begins growing again. By harvest, the cover crops are growing nicely. Next spring we plant soybeans directly into the cover crops.

We were concerned about seed-to-soil contact with only our rolling coulter for moving any dirt, so we added a set of two drag teeth behind each coulter. We felt this was better than leaving the cover crop seed on top of the ground and hoping for germination.

After harvesting sugar beets we seed cereal rye grain to protect the soil from wind erosion, which is crucial when we have open winters without snow covering the ground.

We want to have something growing as long as possible in our soils.

"I have an 87-year-old landlord who plowed until the day he retired," Ryberg said in a Minnesota Corn Growers Association's story about his using the Innovation Grant to use cover crops. "After discussing cover crops, he has come to understand the benefits. It is fun to see that mentality changing."

Biography:

Brian Ryberg, Ryberg Farms, Buffalo Lake, Minnesota, grows corn, soybeans and sugar beets on 22-inch rows in four counties in west central Minnesota. Ryberg Farms strip-tills corn, soybeans and sugar beets, uses cover crops, and participates in the National Corn Growers Association's Soil Health Partnership.

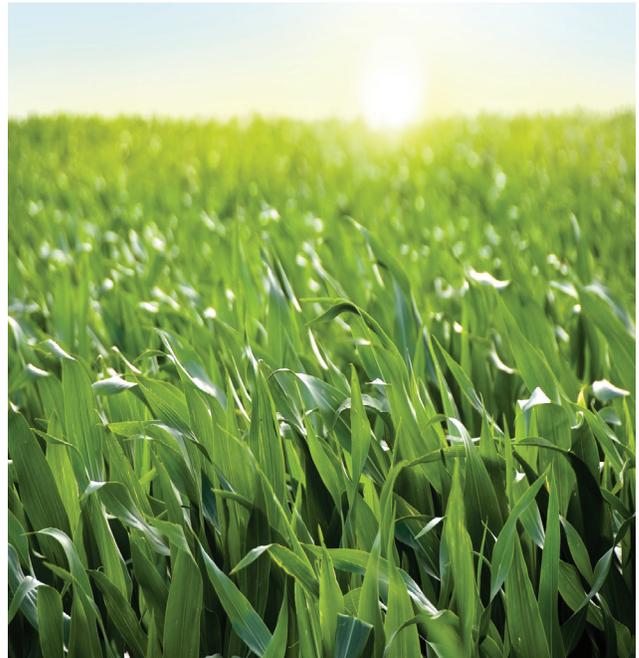
Sources:

Ryberg Farms: www.rybergfarms.com

Minnesota Corn Growers Association: www.mncorn.org

<https://www.mncorn.org/2017/09/12/innovation-grant-spotlight-brian-ryberg>

<https://www.mncorn.org/research-item/cover-crop-seeder-side-dress-toolbar>



Brian Ryberg

continued

Dave and Mark Legvold, Northfield, Minnesota

Inter seeding cover crops into corn while side dressing nitrogen in June gives us more cover crop choices than just seeding cereal rye grain after combining. And with very wet weather during the fall of 2018 and 2019 the window for seeding cover crops after harvest was small.

We use a mix of cover crop seeds that germinate and then go dormant during the summer, seeding 15 pounds per acre. The mix is 59% annual ryegrass, as well as clover and other cool-season, shade-tolerant cover crops that go dormant during the summer.

Two spinners do a great job of evenly spreading cover crop seed over the 12 rows as we side dress 30-inch-row corn with 28% liquid nitrogen. By seeding cover crops as we side dress nitrogen we save a trip that post-harvest seeding requires. With the wet weather in fall 2018 and 2019 that delayed and prolonged harvest as late as into December the V2-V6 inter seeding helps ensure that we get the cover crop seeded.



Inter seeding annual ryegrass into corn.

These spinners were designed for distributing salt during our cold, icy Minnesota winters and have adjustable throats to vary seeding rates. They cost about \$2,200 so this has been a low-cost way to start inter seeding. The spinners, brackets on the tool bar, etc., cost \$2,200.

Biography:

Dave Legvold and his son, Mark, strip-till corn and no-till soybeans near Northfield, Minnesota, about 30 miles south of Minneapolis. Dave does on-farm research with students at St. Olaf College and Carleton College in Northfield. The Legvolds host many farmers and other industry professionals, world wide, who want to farm profitably and protect and improve soil health and water quality.

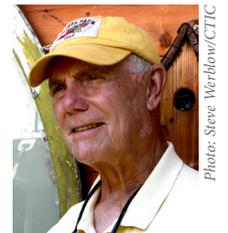


Photo: Steve Werblow/CTIC

Dave Legvold

This publication was developed by Mark Mellbye, emeritus agronomist for Oregon State University Extension, and by Dan Zinkand, soil health and cover crop consultant. Both Mark and Dan serve as consultants to the Oregon Ryegrass Commission.



For more information, including a detailed management guide for ryegrass as a cover crop, check the website of the Oregon Ryegrass Commission:

RyegrassCovercrop.com

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