



# Cover crops

## *Always a good idea*

Cover crops are an inexpensive way to improve manure infiltration, decrease runoff, recycle nutrients, reduce compaction, and improve soil tilth.

---

Natalie Rector and Marilyn Thelen, Michigan State University Extension Educators

---

Surface applied manure that is not incorporated may be vulnerable to runoff. Rain or snow-melt may relocate the manure, sometimes months after application, where it could pond or reach surface waters. Cover crops are particularly beneficial on fields receiving manure between harvest and spring.

Cover crops are not hard to establish, but each producer needs to find the right system for their soil conditions and crop rotations.

Larry Nobis, crop and dairy producer from St. Johns, states, “I have read the research from MSU and seen what cover crops do on our own farm. Some of my best soybeans are after wheat cover crops.” Nobis also expresses the benefits of cover crops for trapping nutrients from manure applications and decreasing the risk of manure runoff. He has tried several different seeding methods. To achieve the stand he wants on heavy soil, Nobis prefers drilling the wheat, but confirms it is worth the extra bother.

Merl Yoder of Bay Port mounts a 10-bushel grass seeder on the front of his edible bean rod puller and broadcasts a rye cover when harvesting beans. “We are busy in the fall and I want the rye in early because the roots do a lot for the soil and rye provides wind erosion protection,” states Yoder. The rodder mixes the rye into the soil and causes the rye stand to be in strips, but this works for Yoder since a thinner stand is easier to control with tillage in the spring. That is also why he only uses a  $\frac{3}{4}$  to 1 bu/a seeding rate. When going to Roundup Ready soybeans or corn, the field cultivator plus an application of glyphosate provides control. When going to sugar beets, the field cultivator and an application of Assure II puts the rye in check. Fall chisel plowing can be done immediately after seeding and a cover crop stand is still successful.

Dr. Tim Harrigan, Biosystems and Agricultural Engineering at MSU, has been researching a slurry seeding method where cover crops of annual rye, clover, brassicas, wheat or cereal rye are added directly into the liquid manure tank, agitated and then applied as the manure is applied to the field. In the MSU work, the soil is loosened with a low-disturbance tillage tool (AerWay) drawn behind the manure tank. For more details on this method see [www.rootzone.msu.edu](http://www.rootzone.msu.edu).

Drilling oats prior to Sept. 1 (in southern Michigan) helps provide sufficient top growth before frost kill. Wheat and rye can be seeded at 1-2 bu/a by drilling, aerial seeding or bulk spreading. Aerial seeding should be done several weeks prior to silage harvest, during early dent stage of grain corn or before leaf drop in soybeans. To avoid contaminating the harvested crop, do not use treated seed. This method allows for a fast green up after harvest, in time for manure applications.

---

**“Some of my best soybeans are after wheat cover crops.”** — LARRY NOBIS

---

Rye or wheat can be seeded with a bulk spreader before fall tillage and are forgiving of seeding depth. Both wheat and rye can be controlled in the spring with one quart of glyphosate plus ammonium sulfate per acre (rye needs to be controlled before it is 12 inches tall). 🌱