

Drought spurs farmers to turn to cover crops

By HOWARD GRENINGER <http://tribstar.com/local/x503833874/-Cover-crops-helping-Valley-farmers-recover-from-drought>

Tribune-Star via Associated Press

TERRE HAUTE, Ind. (AP) -- Following last year's record-setting drought, some Vigo County farmers have turned to cover crops to help trap nitrogen in the ground to benefit this year's crops.

"We were really encouraging people to plant them this past fall after the drought because if you have a drought and have low corn yields, that means you will have more residual nitrogen in the soil. The corn crop did not really grow and use the nitrogen that was applied," said Eileen Kladvko, professor of agronomy at Purdue University.

The residual nitrate can leach out of the soil into nearby streams, eventually getting into the Mississippi River and the Gulf of Mexico.

"Cover crops are a good practice regardless of the type of year," Kladvko told the Tribune-Star (<http://bit.ly/T0naoJ>).

Cover crops can include clover, radishes and even turnips. The crops not only capture nitrogen, but also help build organic soil matter, Kladvko said.

"Cover crop use has grown tremendously in Indiana and Ohio in the last three years, but it still is a relatively small percent of farmers. It still is probably less than 10 percent of the farmers statewide (in Indiana) that are using cover crops," Kladvko said.

Five years ago, that percentage would be closer to 2 percent of Hoosier farmers using cover crops, she said. "There is tremendous interest, so there are a number of people who are seriously considering it who have not done it yet," Kladvko said.

While turnips are not a common cover crop, their use has increased.

"A turnip does scavenge a lot of nitrogen. If people have cattle, then sometimes turnips can be good for grazing," Kladvko said. Also the turnip has a tap root that deeply penetrates the soil, helping uncompact the soil.

This is the first year that Roger Sturgeon, who farms about 1,900 acres just north of Riley, has planted a cover crop. He planted 120 acres as a test area using a mixture that is about 82 percent clover, with 3 percent in turnips and the rest in radishes.

"The clover is actually supposed to generate nitrogen, somewhere around 75 to 100 pounds of nitrogen could be put back into the ground," Sturgeon said.

He planted radishes and turnips not to collect nitrogen, but instead to use their root systems to break up compaction of the soil. "The previous crop in the field was wheat. Because of the drought and the ground was so hard, I was not able to put in a double crop of beans last summer," Sturgeon said.

"I just decided since I didn't have anything growing there, I had plenty of time to plant a cover crop. It is something new and have never done before, but it seems like cover crops are gaining in popularity and are coming back," Sturgeon said.

"I did it mainly because of the drought as the ground was going to sit idle without the beans. The whole idea behind cover crops is the ground is actually healthier if you have something growing there," Sturgeon said.

Cover crops that do not die in the winter or have volunteer sprouts that become active in the spring are killed off with an herbicide about 10 to 14 days before cash crops of corn or soybeans are planted.

Sturgeon describes himself as a minimal till farmer and plans to watch how the land with a cover crop performs. "If my socks are just knocked off and it is 200 bushel corn and all the rest in 160 bushel, then I will know it will have made a big difference," he said.

This fall, Sturgeon said he plans to try a side-by-side test of land, with one area in cover crops next to land without a cover crop.

Farmer Phil Carter said the 2012 drought made it a "perfect storm" for farmers to plant cover crops.

"There has been a big push from the soil conservation services and the state Department of Agriculture encouraging farmers to plant cover crops. This year people have the time (with many fields decimated) and it makes sense to do it," he said.

Carter has used cover crops for seven years. This year he has 55 percent of the 1,200 acres he farms, north of Lewis, sown with cover crops. He primarily uses an annual rye grass. He also uses cereal rye, similar to wheat, and oilseed radishes.

"I like radishes to break up soil compaction, but the problem is they have to be planted in late August to get the most benefit from them and most of the time our crops don't come off until mid-September, late October," Carter said.

"The reason I use annual rye grass is it is very deep rooted and brings up nutrients up from the subsoil. Then when you till it or burn it back to plant corn or beans, it brings those nutrients up to the top and you have them for the future," Carter said.

The primary reason Carter said he uses cover crops is to protect soil from erosion. An added benefit is it helps soil from losing nutrients.

"If there is any free nitrogen in the soil, it will tie it up until next spring's crop," he said.

"A third reason for cover crops is soil where you grow cover crops has a better tilth to it," Carter said. "The soil is more fluffy, loamy, easier to work with and not as compacted. It just makes your soil healthier."

Timing is important on cover crops, Carter said. Planting has to be timely in the fall to get the plants established before a frost or freeze.

And, if the plants are killed too soon in the spring, "you do not get all of the benefits. If you kill them too late, they can take moisture out of the soil," Carter said.

Likewise, if the cover crop, such as rye grass, gets too large when killed and lays down, it can retain too much moisture during a wet period. However, it can also retain water in a dry period.

"The big push on cover crops is to have something green on the soil for more months out of the year than just the five months you have crops growing on them," Carter said.

"Go back 50 years, the rotations people had were corn, soybeans and wheat. After the wheat, people planted clover or alfalfa, so we had some kind of cover crop on the soils 80 percent of the time," Carter said. "We have gotten away from that."