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AT URBANA-CHAMPAIGN

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TO: Whom it may concern

RE: Using crop species as cover on Prevented Planting acres in Illinois in 2019

Corn can be an agronomically sound cover crop option for Illinois farmers with Prevented Planting acres. Corn grows from seed and establishes cover relatively quickly, but as a major grain crop, it has not been used extensively as an unharvested cover crop. The large numbers of acres expected to be declared as prevented planting (PP) in Illinois in 2019 makes corn one of several candidate species to serve as cover.

Prevented planting is a novelty for most Illinois farmers, who typically enjoy PP rates of less than 1% for both corn and soybean. While the rules governing the declaration and allowable practices on PP acres are complex, one stands out: Every producer who declares PP needs to get approval from his or her crop insurance agent before any PP management plan is implemented.

The goals and some of the options for cover crops on PP acres are covered in the [article](#) posted on the University of Illinois Bulletin website on June 17, 2019. Briefly, growing a cover crop on PP acres is intended to provide vegetation to keep soil in place, to help control weeds growth and reseeding, and to take up nitrogen (from mineralization and fertilizer) to prevent its loss to the environment.

Agronomic considerations regarding the use of corn as a cover crop include the following:

1. Neither seed nor grain produced from seed of transgenic (GMO) corn hybrids can be used as cover crop seed, due to patent prohibitions. Seed or grain grown from non-GMO, non-patented hybrids can probably be used for this purpose, but check seed labels and grower agreements to make sure.
2. Non-silage corn, follow these practices designed to provide quick cover and to minimize or eliminate the potential for cover crop corn to produce viable seed (which cannot be harvested as grain) include: a) planting after July 15; b) planting in narrow rows—15 inches or less; and c) planting at least 70,000 seeds per acre, adjusted upward appropriately if the germination is less than 90%. Corn can be broadcast-seeded at higher seed rates but using a planter or drill will generally work better. If despite these measures plant pollinate and kernels begin to fill, the crop should be mowed down.
3. Herbicides can be used on cover crop corn to manage weed growth. If cover crop corn (without grain) is to be grazed after September 1, herbicides need to allow this.
4. The choice of cover crop should be based on what crop will follow in 2020, not on which crop was planned for 2019. Due to its potential to produce large amounts of high-carbon residue, corn as a cover crop will work best if the crop planned for 2020 is soybean.

Using other crop species as cover crops is also possible, as long as rules are followed. Some considerations for those follow:

1. Forage sorghum and sorghum-sudangrass hybrids will grow quickly and will withstand summer heat and dryness better than corn. Because they produce little seed, they require less effort than corn to prevent seed formation. Like corn, these should be planted after mid-July, in rows 15 inches apart or less, and mowed if needed to suppress growth and seed production. These species should only be used if a non-grain crop (soybean) will be grown in 2020. Grazing after September 1 is allowed, but prussic acid that when cells are damaged by frost can injure or kill animals until the plants have dried down, a few weeks after frost.
2. Soybean may work as a cover crop if corn will be planted in 2020, but rules as of June 21 state it may not be planted on Soybean PP acres. As is the case with corn, using soybean varieties (and soybeans produced from soybean varieties) with patented GMO traits, or patented non-GMO varieties may not be allowed for this; check with your seed dealer to make sure. Soybeans as cover crops can be planted by mid-July or later, and should be drilled or planted in rows no wider than 15 inches. If they haven't been killed by frost, they should be mowed at the start of podfilling (stage R5) or in early stage R6 to prevent formation of viable seed.
3. Small grains including wheat, oats, or rye can be used, whether the 2020 crop will be corn or soybean. Seed restrictions are the same as for soybean, but there are no GMO small grains on the market and while most small grain varieties are not patented, some are, so check before using. Fall-seeded varieties of wheat (and rye) are not expected to form heads this year if planted in July; spring wheat or oats will, and may need to be mowed to prevent grain formation. If allowed to overwinter, winter wheat or rye may form heads next spring (very early planting makes them less likely to survive the winter), but that grain cannot be harvested. None of these small grains thrive under warm, humid conditions, and they can all serve as a "green bridge" from which diseases can be spread to a fall seeding of wheat near a PP field.

Other, more traditional cover crop species such as clovers (red, crimson, sweet), vetch, rapeseed, turnips, radish, etc. can be planted on PP acres, and they will benefit from mid-summer planting that allows them to grow longer. They do not establish cover as quickly as other crop mentioned above, and demand is such that prices of seed for many of these may be prohibitive.

Sincerely,



Emerson Nafziger, PhD
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N. Dennis Bowman
Interim Assistant Dean for Agriculture and Natural Resources