



FIELD NOTES

June 6, 2019

Cover crops for prevent planting

When the time comes to decide about the best way to manage acres in **prevent plant**, it may be a good time to test out some cover crop options. There are many reasons to consider cover crops on your prevent plant acres this year. It will be especially important to *consider cover crops to retain any nitrogen that was applied in either the fall or early spring*. Cover crops will reduce nutrient loss and help stabilize the soil structure.

Weed control needs to be considered and NREC research has shown that cover crops limit emergence of some summer annual weed species. Without a cover crop, herbicide cost needs to be measured and fuel costs for tillage also need to be factored. Will this money return an investment in improved soil health and erosion prevention? Planting a cover crop has the potential to reduce soil erosion, suppress weeds, improve soil biology, interrupt disease cycles and improve soil structure.

Multiple tillage passes will be required to keep bare fields clean and this will cause compaction reduced water infiltration and erosion. Multiple tillage passes will also incite additional germination of weed seeds and create an environment without competition, further encouraging weeds to thrive. A good cover crop mix will out-compete weeds, providing a viable strategy for season long weed control while providing nutrient management.

Residual herbicides are designed to achieve “season-long” weed control in conjunction with shading and competition provided in conjunction with the field crop, not to provide complete bare soil June-October control on their own as is the goal on prevented plant acres. As a result, multiple applications will be needed. Keeping the soil surface free of vegetation with herbicides, much like tillage, can reduce water infiltration which makes soils more vulnerable to erosion too.

If your goal is to primarily suppress weeds, then a summer annual cover crop that can get established quickly to out-compete other weeds is ideal. Some possible suggestions are forage sorghums, sunflowers, and buckwheat as part of a mix. It is helpful to have a mix because a quick establisher may not form a thick canopy. It is worth considering a cover crop that has tolerance to a herbicide that is effective against your target weed. For example, if you are targeting grasses you would want to plant some broadleaves so that you could spray the grass if necessary.

If your goal is to capture nitrogen, especially for a field with nitrogen already applied that will go into corn next year, you will need something to scavenge nitrogen like oats, cereal rye or even soybeans. Soybeans can be planted as part of a cover crop mix in **prevent plant** if they are not harvested. Legumes are great nitrogen scavengers so any legume in the mix would serve this purpose.

If you have animals/livestock, you may want to consider planting hay or a mix of cover crops for grazing after November 1. Remember that disproportionate grain production can be a liability due to acidosis from excessive grain consumption. This might be a good time to try a specialized hay needed for horses, rabbits, or other grazing animals that require special hay mixes but provide a premium.

Think about multiple goals for the prevent plant cover crop program and develop a mix of plant species to best achieve those goals. A cover crop cocktail or mix of multiple species and growth habits are common after wheat harvest in some areas and maximize benefits of biomass and soil biology. The ideal plan is to maintain cover through the winter too as we don't want summer cover crops to be plowed under in early fall to leave soils bare all winter. Strip tillage through overwintering cover crops in the fall ahead of corn planting in the spring has been shown to be effective way to manage cover crop residue on relatively flat ground. No-till soybean planting into overwintering cover crops has been shown to be very effective at producing high soybean yields.

Managing cover crops by mowing during the season might be advised to keep some species in the vegetative stage to avoid seeding, but managing the cover crop will accomplish multiple positive goals associated with challenges this season. Other considerations are possible herbicide carryover, most herbicides have a four-month carryover, but there are some that exceed this so it is best to check with your applicator about what might still be active in your field.

For further information on cover crops:

https://www.ifca.com/media/web/1507152828_NREC%20Cover%20Crop%20Guide.pdf

Cover crop selection can best be determined using the Midwest Cover Crop Council Selector Tool found here <http://mccc.msu.edu/selector-tool/>.

If you haven't decided about planting corn vs prevent plant see this article for some financial information <https://farmdocdaily.illinois.edu/2019/05/prevented-planting-2019-market-facilitation-program-payments-disaster-assistance-and-price-dynamics.html>