Prevented Planting? Cover Crops Offer a Silver Lining

Wet conditions across the country forced many farmers to forgo their plans for the season and take prevented planting payments instead. The USDA says that as of July 8, 2019, its paid roughly \$184 million in claims for prevented planting because of floods and excess moisture. University of Illinois ag economist Gary Schnitkey <u>estimates payouts could reach a</u> record-setting \$3.578 billion.

But just because you couldn't get a cash crop planted doesn't mean those acres should stay bare until next spring. Instead, it provides a great opportunity to seed cover crops.

Why Cover Crop Prevented Plant Acres?

"If you have livestock, it's a total no-brainer," says Sarah Carlson, Strategic Initiatives Director for <u>Practical Farmers of Iowa</u>, explaining that sorghum-sudangrass or Japanese millet would provide livestock farmers access to a lot of forage for the summer and reduce their feedstock expenses.

The USDA's Risk Management Agency (RMA) is also allowing farmers to <u>hay, graze or chop</u> <u>cover crops on prevented plant acres earlier this year</u>, with final grazing and haying being moved from Nov. 1 to Sept. 1. According to the press release, growers can hay, graze, or cut cover crops for silage, haylage or baleage on prevented plant acres on or after Sept. 1 and still maintain eligibility for their 2019 prevented plant indemnity.

But for farmers without livestock, Carlson says it still makes sense to get a cover crop out there.

"They're going to spend money keeping the field weed-free all summer long," she says. "They could just spend that money on a cover crop to do that for them."

In addition to weed control, cover crops also prevent negative consequences from leaving the soil fallow. Carlson says that studies have shown corn crops following bare or chemical-fallow fields experience phosphorus stress because the <u>mycorrhizal fungi</u> — the biology that makes phosphorus plant-available — severely decreases in population when it doesn't have access to plant roots, its food source.

"That creates fallow syndrome, which is basically phosphorus stress," Carlson explains. "So not only would they be spending a ton of money by cleaning weeds by tillage or herbicides, they can also have decreased corn yields the next year. To me, that more than says we should use a cover crop."

A <u>Purdue Extension article</u> by Purdue agronomist Eileen Kladivko and Indiana NRCS State Soil Health Specialist Barry Fisher explains there are several soil health benefits to using cover crops on prevented plant acres, including:

- Protection from wind and water erosion
- Help build soil organic matter and soil aggregation
- Improved water infiltration
- Reduced soil compaction (deep-rooting species can often provide greater benefits in this situation because they have a longer time to grow)

"What's great about prevented plant, considering that it's unfortunate that it happened, is it gives farmers the opportunity to plant something in early August with good seed-to-soil contact, and it's going to help farmers have really good stands," Carlson says. "They're going to have something that looks nice and they're going to be able to get it on in a timely fashion as compared to when we normally plant cover crops."

By selecting the right species for your situation, you can maximize the benefits of having a cover crop earlier.

What Cover Crops Should You Seed?

Just like when a farmer is using cover crops after harvest, one of the first factors to consider in picking a species is what the following cash crop will be.

If you had prevented plant soybeans and still plan on going to corn next year, Carlson recommends using legumes to build up soil nitrogen. According to Kladivko and Fisher, a legume or legume mix planted in early summer may provide more than half of the required nitrogen for the following corn crop.

Carlson suggests using a mix of cowpeas, buckwheat and radish, with total seeds not exceeding 900,000 per acre and cowpeas making up a third to half of the mix.

She notes that this cover crop won't last, so she recommends coming back in September to plant crimson clover and oats.

"I would just focus on getting lots of broadleaves out there," she says. "Whether those are summer broadleaves like cowpeas and buckwheat, or late fall broadleaves, which would be crimson clover, radish and turnips." She adds that she also likes to include oats, as a grass species is good for mycorrhizal fungi and offers more protection against wind erosion.

The other benefit is, at least in Iowa, all of those species will winterkill, so come spring "it'll be as if the cover crop wasn't there," she says. "It won't cause any planting issues because it's all going to be dead."

If you had prevented plant corn, which means next year you're going to plant soybeans, then Carlson recommends putting in a quick, short cover crop like buckwheat. Let it grow for 45 days then either mow or incorporate it into the soil when it's flowering. After that, come back with a half bushel of oats, a half bushel of cereal rye, and a couple pounds of radish or turnips in mid-September.

Cereal rye will overwinter, so you can either terminate it before or after planting soybeans. Carlson adds that you should also scout to see if you need to make more herbicide passes to completely kill it.

If you're not sure what your next cash crop will be, then Carlson says to be more cautious and go with something that will winterkill.

"Especially if they're new to cover crops, so they don't have a bunch of cover crop biomass in the spring to deal with," she says, explaining that if a grower decides to plant corn, that <u>rye may</u> <u>cause a yield drag</u> to the crop if it's not managed properly.

She also recommends thinking about what the intended purpose of the cover crop is, whether it's weed control, <u>nitrogen production</u>, reduced erosion, forage, etc.

What to do if You're New to Cover Crops

If your goal with cover crops on prevented plant acres is just to try it, then Carlson recommends sticking with one species like oats.

While the most common advice given to <u>new cover crop users</u> is to start small and only test it out on a small number of acres, Carlson thinks in a prevented plant situation it's more important to get every acre covered.

She would advise farmers seed a bushel of oats with 2 pounds of radishes per acre. In many areas, the oats and radishes will winterkill. Even in places where the oats will overwinter, Carlson says they don't get too high in carbon and should be easy to kill and plant into, compared to a crop like winter wheat.

Warm- vs. Cool-Season Cover

For growers who have experience with cover crops and want to achieve specific goals with them, there are several options you may want to consider, especially since seed for a specific species may be limited due to the high demand from prevented planting. The following chart from the Midwest Cover Crops Council lists some summer options for prevented planting and the recommended rates and drilling depth.

It's also important to keep in mind whether a species is a warm- or cool-season crop, Carlson points out, as a cool-season species like cereal rye is not going to perform as well in warmer soil temperatures in the summer.

She recommends checking out Green Cover Seed's <u>SmartMix calculator</u>, which will identify whether a crop is warm or cool seasoned. It also provides recommendations on seeding rates.

Can I Use My Cash Crop Seed?

With limited cover crop seed availability, you may be wondering whether you can use the corn and soybean seed you intended to plant as a cover crop on your prevented plant acres.

According to the <u>RMA</u>, the cover crop can be the same crop prevented from planting while retaining eligibility for prevented planting payment, but it cannot be used for harvest as seed or grain. The cover crop must also be recognized by agricultural experts, which the agency defines in its <u>FAQ section</u>, as agronomically sound for the area for erosion control or other purposes related to conservation or soil improvement. It also must be planted at the recommended seeding rate.

While <u>Michigan State University Extension</u> recognizes the use of corn and soybeans as agronomically sound cover crops following a prevented planting crop in Michigan, it also recommends reviewing your herbicide program and seed treatments for livestock feed restrictions when considering corn or soybeans as emergency forage, and if you're using GMO seed, consult your seed contract and seed dealer to ensure it can be used as a cover crop.

Don't Forget About Herbicides

Another factor to consider in selecting seed is whether you previously applied herbicides to the field in anticipation of planting, Carlson says. If so, you'll need to check the herbicide labels to see if what you applied can cause harm to the cover crop you want to seed.

If it's not clear from the label if the herbicide will hurt your cover crops, then Carlson says you can put some soil from your field in a garden bucket and plant some cover crop seeds in it. If in two weeks the covers are green and growing, then it's probably fine. But if you're seeing yellowing around the leaves, then there's probably some herbicide injury, and you'll have to wait and see if the cover crop dies.

Get Good Seed-to-Soil Contact

When it comes to getting the cover crop seeded, Carlson recommends using a drill or another method that provides good seed-to-soil contact. Kladivko and Fisher agree, explaining in their article that the topsoil is likely crusted and hard after prolonged soil ponding on prevented plant acres.

But Carlson advises against uses tillage as a way to get covers established because it will dry out the soil. If the field is fit, she recommends just seeding it, or if you have to broadcast, doing some shallow incorporation.

"Just be mindful," Carlson says, "less tillage means more soil moisture availability."

Control Weeds, Then Seed

Before you get seeding, you'll need to scout for weeds in your field and determine whether you need to control them first.

That depends on how big the weeds are, Carlson says. If the weeds aren't very big and you think the disturbance of the no-till drill will take care of them, then you can seed first. But if they're pretty thick and getting some size on them, then Carlson says to spray the fields before seeding the cover crops.

"When the cover crop is planted, it's going to be behind the weeds," she explains. "The weeds have already got a head start. So they're going to go to seed and contribute a lot of seed to the soil, which is what we're trying not to do."

Mowing is probably not an effective option for weed control in this case, she adds, because you won't get all of the weeds at the right stage to kill them. But if you don't want to spray and rain is in the forecast, then you could work the ground to kill the weeds and seed the cover crop, which will put the cover crop ahead of the weeds.

Update on Termination Timing for Spring 2020

While it's not related to the weather issues facing farmers this year, the USDA is changing when cover crops must be terminated to stay eligible for crop insurance.

In a <u>June 28 press release</u>, the USDA announced that the 2018 Farm Bill mandated changes to the treatment of cover crops for its programs and starting in 2020, crop insurance will attach at the time of planting to the insured crop. Cover crop management practices are covered by Good Farming Practice provisions, and the termination guidelines are no longer a requirement for insurance to attach.

Consult Your Agent First

Finally, before you seed cover crops, the RMA recommends checking with the RMA and your individual crop insurance agent on prevented planting requirements, as well as haying, grazing and harvest restrictions on cover crops grown on prevented planting acres.