Aerial Seeding Cover Crops: A Possibility

Cover crops are nice and all, and are shown to have numerous soil benefits, but they do not always fit into the crop rotation. Most of the corn ground will likely go back into wheat this fall, especially with the current wheat market prices. However, there are a lot of soybean acres this year, both long-season and double-cropped. Since soybeans are often harvested in late October to early November, it does not leave much room for a cover crop. This is especially true if corn will be planted in early April. While cereal rye can be planted in November and still get a stand established, clovers and brassicas do not stand a chance. The cereal rye will not really grow much before the hard winter freezes. It would be better if everything could be planted directly into the soybeans in September while they were still standing. This could be where aerial seeding may be something to consider.

Seeding by air is nothing new. It started in the 30s and 40s when tree seeds were dropped by air to reforest areas after wildfires. This type of reforestation practice has been attempted even in recent years, though from what I’ve read, none of it works very well because it’s hard to get the tree seeds into the forest floor soil. However, flying on cover crops has proven to work pretty well…if the weather is right, if the timing is right, with the right seed, and by someone who knows how. Also, check the soybean herbicides as well. Some have plenty of long enough residual that any sort of seeding is unlikely to work.

When to Fly On Seed
For the most part, we are talking about seeding into soybeans in Southeast Kansas. Some places farther north might seed into later planted corn, but very little corn is planted late here. The right time to fly on cover crop seed in soybeans is right when the leaves start to yellow and perhaps the first few have started to drop. The idea is to get the seed through the soybean canopy and touch the soil. Then, the soybean leaves will fall on them and create a moisture barrier to help with germination. If the soil is wet when seeding, that is even better.

Timing the Weather
I have heard farmers say that aerial seeding works 50% of the time. That 50% of the time it worked because the weather was right. Aerial seeding is effectively broadcasting the seed and then not rolling it in. The stand entirely depends on getting a week of cloudy and rainy weather.
The seed can sit there for a little while on dry soil, but the worst-case situation is where there is enough moisture to get it germinated but then dries out. Sometimes our Septembers are hot and dry, like all last fall, but some years we get some moisture that blows in during the hurricane season in the Gulf. Aerial seeding is always a gamble, but it is best to have the odds in your favor.

**Choosing the Right Seed**

Anything with smaller seeds is ideal. Ryegrass, clover, and brassica seed work best, but some of the other cereal grains might work as well. Another advantage is that smaller seeds mean less pounds per acre and therefore fewer refills for the applicator. Ryegrass seed is pretty light and can get blown around some before getting to the ground. A seed coating can help, but this is not necessary. The larger seeded legumes have very little chance of working even in the best of conditions. Wheat is a possibility, even though the seeds are a little bit larger. However, I do not recommend flying on a wheat crop for grain. Some years might actually work, but there is a serious risk of winterkill and spring freeze damage to wheat that germinates on the soil surface. Another aspect of seed selection is what is the crop rotation and intent with the cover crop. Is the field going back into early April planted corn or soybeans planted in May? Is the field going to be grazed, hayed, or only used as a cover?

**Risks of Aerial Seeding**

I have talked to a few farmers who said it works great when the weather is right, and I have talked to some farmers who will never try it again. It is no secret that it is not always going to work. That can be a real barrier considering the extra expense of aerial seeding. However, per acre, it is not that much more expensive when considering the cost of equipment, diesel, and time when planting with a ground seeder. The real choice comes down to this if the soil moisture is good, the weather forecast looks right, and the crop is at the right stage, think about giving aerial seeding a try. Otherwise, it is not worth the risk. It is best to start small when deciding whether to try aerial seeding, and of course, talk to your NRCS office if there is a program to help with cost reimbursement.

If you are wondering what sort of cover crops to try in your operation, give me a call at any Wildcat Extension office.

For more information, please contact James Coover, Crop Production Agent, at jcoover@ksu.edu or (620) 724-8233.

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