Cover Crops
ANSWERS #1

One in a series giving you solid, dependable guidance from cover crops veterans

Aerial Seeding Cover Crops:
Answers to 5 Most-Asked Questions

Photo courtesy of Jamie Scott

Aerial Seeding Quick Facts

Jamie Scott

- Allows an extra month for covers to grow and build soil
- Costs are comparable to other seeding methods
- Local reps with cover crops experience can organize to coordinate service to growing numbers of farmers

Answers to five often-asked questions on aerial seeding come from Jamie Scott, Farmer and Aerial Applicator

Jamie Scott of Pierceton, Indiana, uses cover crops on all 2,000 acres of corn and soybeans he grows. He's used an airplane to fly on about 90% of the seed for the past 10 years. Scott also manages an aerial application business, spending two months of the year arranging aerial seeding of cover crops for 400-some farmers on nearly 100,000 acres in northeast Indiana and Michigan.

1. Why seed by air?

The most critical element in growing cover crops is giving them time to grow in the fall, to best do their work in building the soil, preventing erosion, and other purposes.

You get that extra time– an extra month before winter sets in– if you seed into standing crops. You lose a month of potential growth if you drill cover crop seeds after harvest. So you need to seed into standing crops.

You see more use of highboys or high clearance sprayers to seed now. But you don't get as many acres seeded in a day with a highboy as with a plane, and you do knock some crop down.

To me, seeding cover crops with a plane is the best option. We wouldn't be flying seed onto our farm if we didn't think it was giving us the best results at the lowest cost.

2. How do costs and results of aerial seeding compare to other methods?

The costs of the different seeding methods are comparable, whether you're seeding by air, by high clearance machines, or drilling. When it's all said and done, I think aerial seeding is the least expensive method, especially if you take into account the longer growth period.

I've seen costs of $14 to $16 an acre for labor, machinery, and fuel to drill cover crops. The cost for aerial application of cover crops varies some by species--annual ryegrass can vary from $9 an acre to $16 an acre. We pay somewhere in the middle.

Information courtesy of:

One big reason to aerial seed is to give cover crops a good start in the fall. Cover crops can be growing before the corn or soybean crop is harvested.

3. What's the best time to seed?

Dad always says seed won't grow in the bag. You've got to get it on the field so it's ready to grow when you get fall rains.

A lot of things go into figuring the best time to aerial seed--soil moisture, crop maturity, weather, pilot availability--and more. But the bottom line is you don't want to take a chance on missing a rain, no matter how dry it might be.

We start in early August in corn fields, when aerial applicators are finished with fungicide and insecticides.

It's not true that you shouldn't fly seed into green corn– in Quebec, Canada, farmers are seeding cover crops into corn at sidedress time. It's also a myth that seed will get caught up in green corn– there's something about wind and rain and green corn that disperses the seed very evenly.

"Timing is the big advantage to aerial seeding. You give the seed a chance to start growing early in the fall." Jamie Scott

Here in Indiana, we want to be finished with aerial seeding by September 15. When that seed is lying on top of the ground, it takes a little longer to germinate.

This timing gives a good six weeks of growing time going into winter. Legumes may need to be seeded earlier than grasses because they are small seed.

Something else to remember with aerial seeding is to be timely in fall harvest. The cover crops need sunlight to grow well in the fall, so early harvest gives cover crops the best chance of success.

4. What should seeding rates be by air?

That will vary by species and location. Around here, we would drill annual ryegrass at 15 lbs./acre, increase that by a third to 20 lbs./acre with a highboy, and by another third with an airplane, to 25 lbs./acre.

Those rates are probably relative for other seeds, too. You just need more seed when you fly it on because it's going to be sitting on top of the ground, and you want the best chance for success.

5. Is an airplane or helicopter a better choice, and how do I find a pilot?

The advantage of a helicoper is that it can land very near the field for reloading, and that can cut fuel and time costs compared to a plane. But helicopter pilots will struggle to get light seeds like annual ryegrass and even oats applied evenly.

The turbulence from the chopper blades makes distribution unpredictable. To me, the fixed wing airplane is the best– with a reasonably close loading, landing and takeoff strip, about 1500 acres can be seeded in a day with a fixed wing airplane.

5. How do I find a good pilot?

We've found it's more cost-effective and things go a lot smoother if a Co-op, a local cover crops seed dealer, a farm supply company, or someone like them organizes aerial seeding for a number of local farmers.

A pilot doesn't really have time or the expertise to serve as a point person for cover crops. His job is to fly. It's the job of the local coordinator to find seed, advise on mixtures, coordinate achedules and deliver seed to pilots.

The coordinator needs to get up to speed and be the local person with knowledge on how to be successful with cover crops. Widespread knowledge of how to make cover crops work is the only thing keeping cover crop use from exploding right now.

So look to someone with experience and knowledge to help coordinate cover crop seeding in your locality with aerial applicators. If you don't have such an organized entity in your neighborhood, do some homework and pick an experienced, conscientious pilot who you know will be around next year and the next.

Ask if he's calibrated the swath for mixtures identical to yours. Be aware that field size, distance to travel to get seed, the time it takes to load seed, and weight of seed (how much seed fits in the hopper) all affect costs. Any seed that's bulky may get only half as many acres seeded per plane trip.

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