

July 3, 2013

To: Whom It May Concern

Re: Soybeans as a Cover Crop on Prevented Planting Acres in Iowa - 2013

Soybeans can be an agronomically sound cover crop option for Iowa growers on Prevented Planted Acres. This, however, is not a common practice for Iowa corn and soybean farmers and is not without drawbacks.

There are advantages to using soybeans as a cover crop in prevented planting situations. Soybeans as a cover crop: i) should provide effective erosion control, ii) may improve soil quality as a legume, iii) will provide some degree of weed control, and iv) will likely mitigate issues with fallow-soil syndrome in the 2014 cropping season.

When using soybeans as a cover crop in these situations, keep in mind the following agronomic considerations:

1. Soybeans as a cover crop must be planted at a 'reduced seeding rate.' The rate suggested in 'Cover Crops to improve soil in prevented planting fields' is 50 pounds pure live seed (PLS) per acre (125,000 to 150,000 seeds per acre). Recommendations for late-planted soybeans intended for grain are considerably higher than this. Fifty pounds PLS will suffice if good stands are achieved; higher rates could be justified.
2. If farmers broadcast soybeans as a cover crop, seeding rates double the 50 pound PLS are justified from an agronomic perspective since seedling establishment will be compromised. However, if seed is treated, incorporating broadcast seed into the soil is important to prevent problems with wildlife.
3. Broadcast seeding, drilling or planting soybean in narrow rows – 8 to 15 inch rows - and higher planting rates will result in more rapid canopy closure and thus better erosion and weed control.
4. Production in 30-inch rows will not likely produce the first three advantages mentioned in the second paragraph above because late-planted soybean cover crop will not likely close the canopy between the rows.
5. Insure that any previous herbicide applications will not affect soybeans.
6. Soybeans planted late as a cover crop likely will produce seed, unless the variety planted is very late maturing. **Seed produced must not be harvested - before or after November 1.** Early maturing varieties for your area will flower earlier and thus not produce as much vegetative growth as full-season varieties. Avoid early-maturing varieties if possible.
7. Soybeans as a cover crop are much preferred to bare, tilled ground in terms of erosion control.
8. Other crops like sorghum-sudangrass among others may provide a better option than soybeans as cover crops in prevented planting. Other crops would be better in the long-term for the purpose of disease and insect management, improved weed management, and for decreasing soil erosion. Planting an unmanaged soybean cover crop may increase soybean pathogens, insects, soybean cyst nematode, and seed banks of important soybean system weeds such as tall waterhemp.
9. When planting any cover crop in prevented planting, reduce tillage as much as possible in order to maintain soil moisture necessary for germination and to reduce erosion potential while the cover crop establishes.

10. Terminating the soybean cover crop prior to spring 2014 with tillage will compromise the erosion-control value of the practice and is difficult to justify.

Insured farmers wanting to plant soybeans as a cover crop must get approval from their insurance company to release the acres for that purpose. It is also advised that the insured use insurance company approved practices.

In conclusion, soybeans can be considered a good farming practice when used as a cover crop on Prevented Planting Acres.


Sincerely,



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REFERENCES

NRCS. 2013. **Cover Crops to Improve Soil in Prevented Planting Fields. Iowa Fact Sheet June 2013. NRCS. Des Moines IA.**

http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1143334.pdf

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