PRACTICAL farmers of Iowa
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# Field Crops Research Protocols

## Spraying vs. Rolling Cover Crops and Soybean Row-Width

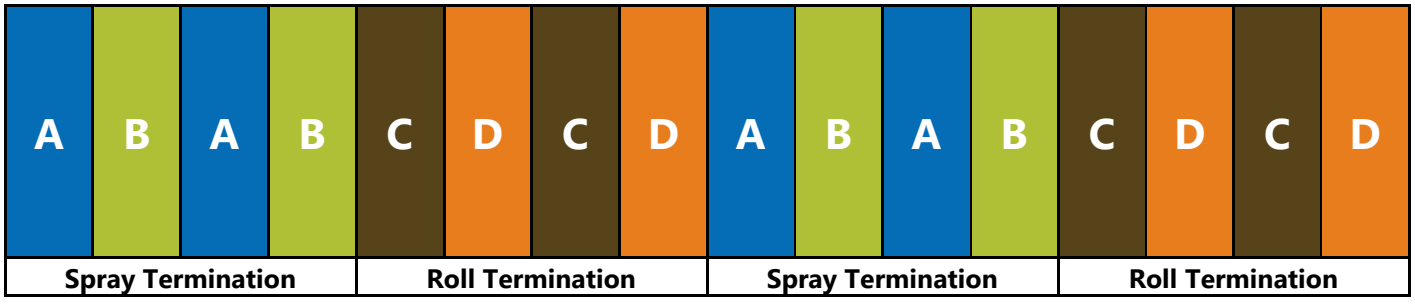
**Objectives**: Determine (1) if rolling a cover crop after soybean seeding is a viable termination option, and (2) whether soybean row-width has any effect on the success of rolling.

**Farmer-cooperator will**:

- Take photos throughout the project and keep in contact with PFI with updates and questions.
- **Fall 2016**, seed cereal rye cover crop.
- **Spring 2017**, establish 4 replications as shown in the diagram below of the following treatments:

| Cover crop termination method | Treatment | Soybean Row-Width |
|---|---|---|
| Spray | A | Plant soybeans in 30-in. rows |
| | B | Drill soybeans in 10-in. rows |
| Roll | C | Plant soybeans in 30-in. rows |
| | D | Drill soybeans in 10-in. rows |

- Strips will be as wide as at least one combine pass and run the length of the field.
- Soybeans will be seeded into all 4 treatments on the same date and at the same population.
- Collect aboveground biomass samples of cover crop from strips just prior to termination.
- Spray cover crop termination method will occur near the soybean seeding date (A and B).
- Roll cover crop termination method will occur at cover crop anthesis after soybean seeding date (C and D).
- **Summer 2017**, monitor progress of soybeans and weed pressure in treatment strips.
- **Fall 2017**, harvest soybeans from strips individually.
- Turn in data to Practical Farmers of Iowa at the end of the project.




**Practical Farmers of Iowa will**:

- Help set up monitoring protocol, monitor progress of project and provide support when needed.
- Publish results in a PFI research report, on PFI website, and potentially other outlets.
- Provide $550 compensation at conclusion of the project in 2017.

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