

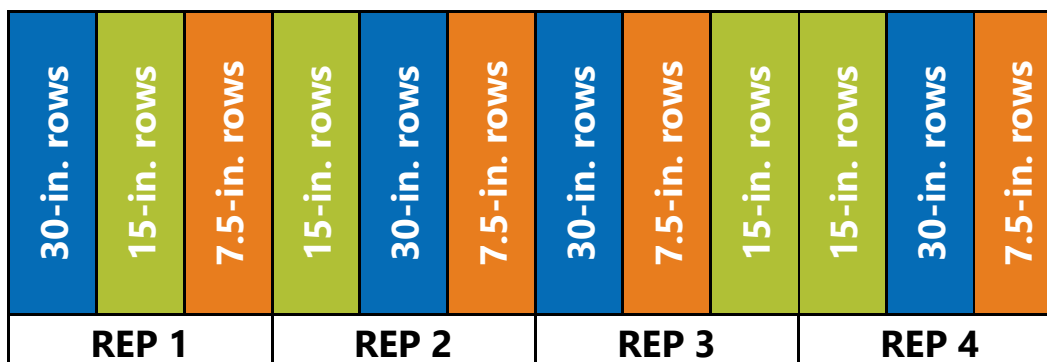
Field Crops Research Protocols

Roller-Crimping Cover Crops and Soybean Row-Width

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

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 *randomized* replications as shown in the diagram below of each of the following soybean row-width treatments:
 - Soybeans planted in 30-in. rows
 - Soybeans planted in 15-in. rows
 - Soybeans drilled in 7.5-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 3 treatments on the same date (prior to cover crop termination).
- Collect aboveground biomass samples of cover crop from strips just prior to termination.
- Roll-crimp cover crop to terminate when cover crop reaches anthesis stage.
- **Summer 2017**, monitor progress of soybeans and weed pressure in treatment strips.
 - Conduct soybean stand counts prior to and after roll-crimping
 - Note stage of soybeans at time of roll-crimping
 - Note the date on which soybeans in each row-width treatment close the canopy
 - Photographic assessment of weed control/pressure
- **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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The terms of this Research Protocols document are subject to the terms of the individual Research Cooperator's Memorandum of Understanding agreement with PFI. To the extent these terms may differ or conflict, the Memorandum of Understanding shall control.