

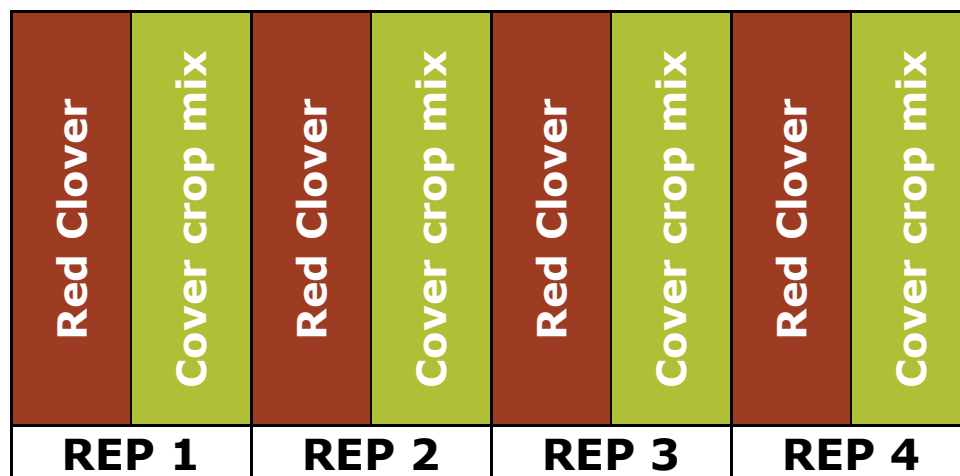
# Field Crops Research Protocols

## Red clover vs. Cover crop mix before corn

**Objective:** Quantify the agronomic and economic effect on corn yields of frost-seeding red clover with winter cereal rye or planting a diverse, cover crop mix immediately after grain and straw harvest of rye.

**Farmer-cooperator, Dick Sloan, will:**

- **Fall 2012**, plant winter cereal rye
- **Spring 2013**, establish a minimum of 4 replications as shown in the diagram below with randomized and replicated strips of:
  - Red clover frost-seeded at 15 lb/ac into rye
  - Sole crop rye to be seeded with cover crop mix after harvest
- Strips will be as wide as at least one combine pass and run the length of the field
- **Summer 2013**, harvest rye grain and straw
  - Drill cover crop mix into sole crop rye strips following grain and straw harvest
    - Mix consists of: cowpeas (11.5 lb/ac); crimson clover (4 lb/ac); berseem clover (3 lb/ac); sunn hemp (2.5 lb/ac); radish (3.5 lb/ac); oats (3 lb/ac)
- **Early-Spring 2014**, terminate red clover and cover crop mix
- **Spring 2014**, plant corn of the same variety and plant population to all strips
- **Fall 2014**, harvest corn in strips, record yield of each strip
- Turn in data to Practical Farmers of Iowa at the end of project
- Keep in contact with PFI with updates and questions



**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 reimbursement at conclusion of the project in 2014