Cover Crop Choices Following Winter Wheat

Paul Gross, Christina Curell, Dale Mutch - AABI Educators

Choosing the right cover crop species following winter wheat will depend on what benefits you would like, what species will work in your farming system, and how do you plan on managing the cover crop. All are important considerations when selecting the best species for your farm.

Below is a list of recommended cover crop species following winter wheat and management considerations.

**Crimson Clover**: Rapid growing winter annual good for short windows. Excellent source of nitrogen and soil builder. Drill 10-20 lbs/a, or broadcast 11-22 lbs/a, with shallow incorporation.

**Field/Winter Pea**: Cool season annual, very rapid growth, good for short windows. Low heat and drought tolerances. Good nitrogen source and topsoil loosener. Drill 50-80 lbs/a, or broadcast 55-88 lbs/a, with shallow incorporation.

**Red Clover**: Short-lived perennial, with very good heat and drought tolerance. Excellent nitrogen source, soil builder, as well as grazing and forage value. Drill 8-10 lbs/a, or broadcast 9-11 lbs/a, with shallow incorporation.

**Oilseed Radish**: Cool season annual with very rapid growth with deep taproot. Good for short window. Good heat and drought tolerance. Excellent nitrogen scavenger and subsoil builder. Drill 5-10 lbs/a, or broadcast 5.5-11 lbs/a, with shallow incorporation. Consider using with manure. Should winter kill.

**Sorghum-Sudangrass**: Summer annual with extremely rapid growth. Good for short windows. Excellent heat and drought tolerance. Excellent nitrogen scavenger, soil builder, weed fighter, erosion preventer and forage value. Drill 15-30 lbs/a, or broadcast 17-33 lbs/a, with shallow incorporation. Consider using after manure applications. Very sensitive to cold temperatures.

**Oats**: Cool season annual with very rapid growth and good for short windows. Low drought and heat tolerance. Excellent erosion preventer and grazing value. Drill 30-60 lbs/a, or broadcast 33-66 lbs/a, with shallow incorporation. Should winter kill.

**Cereal Rye**: Cool season annual with rapid growth and good for short windows. Very good drought tolerance with low heat tolerance. Excellent nitrogen scavenger, soil builder, topsoil loosener, erosion preventer, lasting residue, weed fighter, and grazing value. Drill 50-90 lbs/a, or broadcast 55-99 lbs/a, with shallow incorporation.
**Annual Ryegrass:** Winter annual with rapid growth for short windows. Low heat and drought tolerance. Excellent nitrogen scavenger, soil builder, subsoiler, topsoil loosener, and grazing value. Drill 12-30 lbs/a, or broadcast 13-22 lbs/a, with shallow incorporation. Can be difficult to control in the spring.

**Mustards:** Cool season annual with deep fibrous roots. Very rapid growth, good for short windows. Good heat and drought tolerance. Good nitrogen scavenger, topsoil loosener, weed fighter, and erosion preventer. Drill 4-8 lbs/a, or broadcast 4.5-9 lbs/a, with shallow incorporation.

**Cover Crop Cocktail Mixes**

**Oats/Oilseed Radish:** Cool season annuals with good drought tolerance and fair heat tolerance. Excellent nitrogen scavenger, quick growth, and grazing. Very good soil builder, erosion and weed fighter. Excellent when used with manure. Drill 18-60 lbs/a, oats with 4-8 lbs/a oilseed radish. Broadcast 20-66 lbs/a, oats with 4.5-9 lbs/a, oilseed radish with shallow incorporation. Potential advantages and performance is similar to species when planted individually.

**Winter Peas/Oilseed Radish:** Winter annual and cool season annual. Produces and scavenges nitrogen. Planting rate is 35 lbs/acre. Excellent subsoiler and topsoil loosener. Potential advantages and performance is similar to species when planted individually.

**Annual Ryegrass/Red Clover/Hairy Vetch/Oilseed Radish:** Winter annuals and cool season annual. Shade tolerant with easy establishment. A nitrogen source that improves soil, loosens subsoil. Seed at 30 lbs/acre. Potential advantages and performance are similar to species when planted individually.

**Crimson Clover/Annual Ryegrass:** Summer and winter annuals that have fair drought and heat tolerance. Good nitrogen source and very good soil builder and weed fighter. Excellent grazing and very good forage. Drill 6-9 lbs/a, crimson clover with 8-12 ;lbs/a, annual ryegrass. Broadcast 6.5-10 lbs/a, crimson clover with 9-13 lbs/a, annual ryegrass with shallow incorporation. Potential advantages and performance is similar to species when planted individually.

For additional information on cover crops and choosing the correct species for your farming system visit the Midwest Cover Crop Council web site at: [www.mccc.msu.edu](http://www.mccc.msu.edu). From this site you can link to the cover crop Decision tool at: [http://mcccdev.anr.msu.edu](http://mcccdev.anr.msu.edu) and select cover crops species based on your farms information.