



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

Hardin County Extension News Release

For Further Information Contact:

Mark Badertscher

Agriculture and Natural Resources Extension Educator

Phone – 419-674-2297

E-Mail – badertscher.4@osu.edu

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Fall Cover Crops

By Jim Hoorman, OSU Extension – Putnam County

The end of August and first of September is a great time to plant fall cover crops, especially after wheat harvest. There are three major types of cover crops: Grasses, Brassicas, and Legumes. Grasses (oats, cereal rye) have a fibrous root system and absorb nitrogen (N) and phosphorus (P) while adding soil organic matter. Brassicas (Daikon radish, rape, kale) suppress weeds and insects, reduce soil compaction, and add active organic matter. Legumes (crimson clover, winter peas) add soil nitrogen.

Oats can be a cover crop or be forage crop. Drill 1-2 bushel oats about 0.5-1.5 inches deep and increase the seeding rate 10% if broadcasting. Add 40 -50# N which may be in the form of manure, fertilizer, or as a legume companion crop to increase growth by 50% or more. If forage is desired, drill 2 bu./A and add fertilizer or manure to get 1-3 wet tons of forage that may be wet baled by Thanksgiving or early December.

Cereal rye loosens the soil, its fibrous roots provide P to the soybean plant, and it may be used for winter manure applications. Drill cereal rye at 1.0-1.5 inches deep using 0.75-1 bushel/A. For spring forage (up to 4-5 wet tons), drill 2-3 bu./A and fertilize the cereal rye with manure or commercial fertilizer at 50-70#/A in the fall and spring. Cereal rye is harvested in the spring in the boot stage and makes excellent haylage. Cereal rye has an allelopathic (negative) effect on germinating weeds.

Daikon radish reduces soil compaction with roots 2-4 feet deep. Drill radish at 3#/A and 0.25-0.5 inches deep or broadcast seed on the soil surface. Radish perform better in mixtures and requires some nitrogen (25-50#/A) for good growth. Drilling radish at 1-2#/A with 7-8#/A crimson clover OR 15-18#/A of winter peas is a good practice before corn. The radishes force the legumes to produce about 35% more N. Radishes suppress weeds, promote earthworms, and increase beneficial insects. Radishes tend to stink when they decompose (40-60°F) so be careful where you plant them!

Rape and kale are two brassica cover crops that have deep fibrous root system and grow 2-4 feet tall. Drill rape 0.25-0.5 inches deep at 2-5#/A and kale at 3-5#/A. Rape and kale grows well in the fall and will survive the winter. They are high in crude protein and good for wildlife.

Crimson Clover (Dixie variety) is commonly grown with radish in a mixture. If grown by itself, drill 16 pounds per acre (7-8#/A in a two-way mixture) 0.25-0.5 inches deep. Radish and crimson clover, due to their small seed size, are often broadcast on the soil surface in late-August or early September. Cover crops need a minimum of 60-90 days of growth to survive the winter. The later they are planted the poorer the growth. Crimson clover may supply 100-125 pounds of N to the next crop.

Winter peas (Austrian or Windham) may be planted at 30#/A by themselves or 15-18#/A with radish. Austrian winter peas will generally die in the fall after growing 3-5 feet and produce 100-150 # N/A. The Windham variety of winter peas are more cold tolerant and are grown after early soybeans (harvested in September). Let them grow in the spring to produce 75-100# N/A. All legumes and clover need to be properly inoculated to produce N.

A USDA-SARE cover crop conservation farm tour will be held on September 3rd from 6-8 PM at the Dennis and Terry Turnwald Farm 22714 Rd. N, Cloverdale, OH 45827. Join this tour to learn about more than 12 different cover crops and cover crop mixtures after wheat that are broadcast, drilled, and applied with and without manure, for a total of more than 48 combinations. Participants will learn about soil health concepts, ways to enhance cover crop growth through different seeding methods, and how cover crops may enhance soil productivity, improve yields, and increase profits. The farm is located just 1/8 mile west of the State Rte. 634 and County Road N intersection. This tour is being conducted in cooperation with Ohio State University Extension and Putnam Soil & Water Conservation Service. For more information, call 419-523-6294 (Jim Hoorman) or 419-235-8122 (Dennis).