

## Cover Crop Advantages, Acceptance and Challenges

In late February I attended The Conservation Tillage Conference in Ada, OH which has grown from a 2 day event, to this year a 3 day event with the first day exclusively being dedicated to cover crops. I did not personally attend the entire day devoted to cover crops but I did attend several sessions that dealt with how to grow these unique crops.

- Cover crops provide agronomic benefits and economic incentives
- Cover crop acreage has recently increased dramatically
- Insect and weed management issues are addressed below

Cover crops have been used for many different purposes over the years including erosion control, nitrogen fixation and weed suppression. More recently, cover crops have also been promoted for increasing and encouraging no-till adoption, improving soil health, increasing soil organic carbon, retaining nitrogen over the fall and winter, supplemental forage production and after manure applications. As our country goes to a more "green" type economy, cover crops help fit this sector.

USDA's Natural Resources Conservation Service (NRCS), through the Environmental Quality Incentives Program (EQIP), has offered payments to eligible and interested producers to plant cover crops. In 2008, EQIP paid producers \$ 22.50/acre to plant cover crops and possibly more if tied to the Energy Conservation System or manure waste utilization.

The amount of cover crops planted has increased drastically. In 2005 13,000 acres were EQIP contracted, 15,000 acres in 2006, 76,000 acres in 2007 and (drum roll please) 160,000 acres in 2008. The most popular types of cover crops are annual ryegrass, oilseed radish, oats, cereal rye, vetches and clovers.

Cover crops are not without their challenges. Those that stay green late into the spring, can also attract insects and other pests that may need to be controlled, and will require additional crop scouting. The most commonly found insects include the migratory pests black cutworm and armyworm (particularly common on annual ryegrass) – the females of both species are capable of migrating long distances and will deposit eggs in a wide range of hosts. These caterpillars often reach high densities in the cover crop and will often move from the cover crop to the row crop if there is not a sufficient "host free period." To decrease the chances of insect infestation, the cover crop should be killed at least 2 weeks prior to planting the row crop. Regrowth of the cover crop should be treated with an appropriate herbicide mixed with a pyrethroid insecticide. Because reinfestation and hatching of new eggs may occur after treatment, additional scouting for insects will still be needed at, and shortly after, plant emergence to determine whether further insecticide treatments are required.

An additional challenge is the termination of the cover crop at the time needed. While several crop selections will winter kill, such as oats and oilseed radish, many will live through the winter and need a herbicide application for control sometime in the spring prior to planting row crops. For more information on how to control cover crops consult Table 1 on page 16 of the 2009 Ohio and Indiana Weed Control Guide source: – *(Barry Fisher and Tony Bailey, USDA NRCS with Christian Krupke and Bill Johnson)*

For more information on cover crops please contact your local NRCS or SWCD.

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