### Cover Crops: Questions and Answers

For centuries, farmers have been using cover crops to prevent soil erosion, improve nutrient cycling, and sustain their soils. Conditions in 2012 have renewed many growers interest in cover crops to help mitigate the effects of the drought.

The Cooperative Extension System has many resources that can help growers profitably and sustainably manage their cover crop. Cooperative Extension is a partnership between the federal government (through the U.S. Department of Agriculture's National Institute of Food and Agriculture, or NIFA), state governments (through land-grant universities), and local governments. These resources are based on the research conducted at land grant universities and the USDA Agriculture Research Service (ARS).

# Why would I consider planting a cover crop, this year in particular?

Poor corn yields in some areas have resulted in residual soil nitrogen. Planting a cover crop has the potential to help conserve that nitrogen, trapping this costly crop input for next year's use. The University of Wisconsin recently published a <u>fact sheet</u> on considerations for using cover crops in 2012 for nutrient conservation. This resource also recommends a recently published set of <u>cover crop tips</u> for emergency forage.

Cover crops have other benefits as well, including erosion control and soil moisture control, many of which are described in the North Carolina State Extension publication titled – <u>SoilFacts: Winter Annual Cover Crops</u>.

#### When should I plant a cover crop?

Timely planting results in good root establishment, increased overwintering ability, increased biomass production, and greater uptake of residual soil nitrogen. Your local Land Grant University is likely to have online or for sale resources that can help you in this regard. Two examples are the <u>Penn State Agronomy Guide</u> and the University of Georgia publication titled <u>Success with Cover</u> <u>Crops</u>. You can find your state's Cooperative Extension Service from the NIFA website at the following <u>link</u>. Your local extension office (which you can locate <u>here</u>) can also provide information and/or help you locate the best local extension resources.

# What cover crops should/could I plant?

The optimum cover crop species will vary with climate, drainage, cash crop produced, soil type and the goals the producer would like to achieve.



The ARS Cover Crop Chart is designed to assist producers with decisions on the use of cover crops in crop and forage production systems. The Midwest Cover Crop Council (whose website is hosted by Michigan State University) has developed and maintains cover crop selection tools for field and vegetable crops. Cornell University also offers a cover crop decision tool here. The Sustainable Agriculture Research and Extension (SARE) publication "Managing Cover Crops Profitably" discusses many common cover crop species and selection considerations based on the criteria listed above.

#### How can I plant a cover crop and how much will it cost?

A <u>SARE research report</u> compares aerial and drill cover crop establishment and the approximate costs for each. However, the custom rates listed can vary from state to state. You can learn more about local custom rates through your state's National Agricultural Statistics Service office which you can locate <u>here</u>.

#### What are the benefits of cover crops to growers using organic farming systems?

For organic growers, cover crops are often used as a green manure. They provide an environmental service by protecting the soil over the winter, they add organic matter and otherwise improve the soil, suppress weeds, and act as a 'catch' crop for nitrogen left at the end of the season that might otherwise be leached over the winter. The eXtension eOrganic Community of Practice has an <u>article</u> with more information on cover crop species choices for organic farmers. Information specific to organic farming in the Southeastern U.S. can be accessed <u>here</u>.

#### What are the implications if I harvest the cover crop or use it for forage?

Grazing or haying a cover crop will decrease some of the soil quality and fertility benefits of the practice. However, the value of the feed gained may outweigh these factors. Growers should exercise due diligence and investigate how plans for their cover crop will affect their crop insurance, as well as participation in USDA farm programs. Growers are urged to get in touch with their crop insurance agent or company and their local Farm Service Agency Service Center before making a final decision

### For More Information:



Research, Education, and Economics Mission Area Sandy Miller-Hays, ARS Information Staff <u>Sandy.MillerHays@ars.usda.gov</u> 301-504-1636