

# Management Newsletter

Yadkin County Center

November 2008

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## Area Tobacco Meeting Scheduled

Yadkin, Surry, Forsyth and Stokes Counties are working together to bring a Piedmont Flue-Cured Tobacco Meeting with numerous topics to you! The meeting will be held on Tuesday, December 16, 2008 from 10:30 am - 2:00 pm at the Forsyth County Extension Office. Lunch is included and registration is required by calling 336-679-2061.

### **Topics that will be discussed and specialists scheduled are:**

#### The State of Flue-Cured Tobacco

*Blake Brown*

*Extension Specialist, Agricultural and Research Economics*

#### Changing Fertility Practices

*Loren Fisher, NCSU Tobacco Specialist*

#### Insect Management and New Products

*Hannah Burrack, NCSU Extension Specialist*

#### Technology Update and Energy Management

*Grant Ellington, NCSU Extension Specialist*

#### Ridomil and Blackshank Management

*Mina Mila, NCSU Tobacco Specialist*

## Yadkin County Voluntary Farmland Preservation Program

Enclosed in this newsletter is a brochure on the Yadkin County Farmland Preservation Program. If you have any questions or would like an application, please call me and I will be glad to assist you.

**NC** State University  
A&T State University  
**COOPERATIVE  
EXTENSION**

Empowering People • Providing Solutions

# Winter Cover Crops to Provide Nitrogen For Corn in 2009

## **Addressing Increases in Nitrogen Costs by Using Cover Crops**

The increasing cost of nitrogen (N) fertilizer is the primary factor influencing the rising costs associated with growing summer crops such as corn or sorghum. One alternative to expensive fertilizer is the use of a legume cover crop which fixes N. Growers considering this alternative must take into account the costs associated with growing a cover crop and the amount of N that can be fixed by different legumes. The key to a profitable cover crop is the amount of N fixed. Since the amount of N fixed by a cover crop is influenced by seeding date in the fall and the kill date in the spring, the decision of whether or not to plant a cover crop must be made now.

## **What does it Cost to Plant a Cover Crop?**

The cost of planting a cover crop is dependant on the cost of the seed, cost of burn down herbicide, cost of planting, and cost of any tillage used. Most growers eliminate tillage as much as possible to reduce the cost of establishing a cover crop. Figure 1 shows recent costs for growing either a hairy vetch or crimson clover cover (\$75/acre for hairy vetch or \$60/acre for clover). These costs are based on overseeding of the cover into residue or into a standing crop that is ready for harvest. While these costs may vary, they provide a good starting point for determining how much N must be fixed to make a cover crop profitable. Based on these costs and the current cost of N fertilizer which is now over \$500 a ton, a legume cover crop must fix between 50 and 100 lbs of N to make growing a cover crop more profitable than using N fertilizer.

## **How much N will a cover crop provide?**

Under optimum conditions, cover crops can provide up to 70 to 150 lbs of N per acre (Fig.2). To achieve maximum N fixation, cover crops must be seeded as early as possible in the fall, preferably late September or early October, and should be left in the field for as long as possible in the spring. Unfortunately, it is difficult to seed early in the fall because cotton and soybeans are not harvested until mid to late October. Overseeding into a standing crop is often better than waiting until harvest especially when rainfall is adequate. When seeding is delayed or when the fall and winter months are colder the critical factor in the success of a cover crop comes down to how late the cover crop can be left in the field prior to spring planting. Growers must balance the need to destroy the cover in a timely way to facilitate planting against the fact that most of the N fixed by the cover is fixed in late March and April.

Figure 1. The lines in this graph indicate how much N must be fixed by either a hairy vetch or crimson clover cover crop to make it profitable to plant that cover crop compared with using N fertilizer.

Figure 2. Amount of N fixed by cover crops in different locations across two seasons.

### **Important Considerations in Growing Cover Crops to Provide N for Corn**

1. Timely seeding is critical. Since it is impossible to know when cold weather will slow or stop growth, early fall planting is the only way to insure adequate stand establishment prior to winter, and thus abundant spring growth and enough N fixation to make a cover crop profitable. Keep in mind that certain chemicals used in defoliating cotton such as Drop or Ginstar have restrictions on when a legume cover crop can be planted. If you are considering a cover crop, check the chemical label for rotational restrictions.
2. Leave the cover crop in the field for as long as possible in the spring to achieve maximum N fixation, but remember the golden rule of cover crops “Do not let the cover crop interfere with timely planting or early growth of the primary crop” (i.e. effective farm management may result in reduced N supply from the cover crop in order to insure adequate primary crop growth). This is probably the single most important factor in determining whether or not N supply via cover crops is profitable. Full bloom (mid-April) is the best period for destroying a cover crop such as hairy vetch or crimson clover.
3. Hairy vetch grows well in our climate resulting in more N fixed compared with other types of legumes. However, hairy vetch is difficult to kill in the spring and often ends up competing with the summer crop or, in many cases, becomes a weed in following crops such as wheat or soybeans. Precautions should be taken to ensure that hairy vetch is killed in the spring and that stray seeds do not result in weedy infestations of hairy vetch in adjacent crops.
4. Crimson clover does not grow well on poorly-drained soils where excessive moisture is often a problem. Growers in the tidewater regions of North Carolina should consider alternative cover crops. In contrast, crimson clover grows well in the coastal plain on well-drained soils and does not have the problem of becoming a weed in the following crops.
5. Cover crops such as rye or triticale can improve the amount of N available to the following crop by taking up excess N in the fall and releasing that N back to the following crop. While these grass crops do not fix additional N they can be used to keep soil N from being lost over the winter months.

## **RAFI Grant Funding Available**

RAFI-USA Tobacco Communities Reinvestment Fund will make cost-share grants to farmers, farm organizations and community groups for enterprises that demonstrate new ways to earn income on the farm. Cost-share support of up to \$10,000 will be awarded to individual producers and support of up to \$30,000 will be awarded to collaborative farmer efforts. There will be a meeting on Thursday, November 20 at 7:30 a.m. in the Extension Office to learn more about these grant opportunities. If you are interested and are planning to come to the meeting, please call the Extension Office so that adequate preparations can be made.

# 2008 Agricultural Water Use Survey



**2008 Agricultural Water Use Survey**

Make your voice heard and the facts known -  
*we need your cooperation on this important survey.*

North Carolina farmers have the opportunity to document agricultural water use, based on recent legislation passed in response to the ongoing drought.

**The survey is important** because:

- water use information is limited;
- agricultural water use facts will inform policy makers;
- farms will document their water use needs to ensure future access.

Individual farm data will be kept **strictly confidential** by law.

**Look for your survey form in January of 2009.**  
The results will be made available no later than July 1, 2009.

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**Every North Carolina agricultural organization supports the 2008 Agricultural Water Use Survey.**

*For more information contact:*  
*Herb Vanderberry,*  
*Director, Agricultural Statistics Division*  
*1-800-437-8451*

[www.ncagr.gov/water](http://www.ncagr.gov/water)



For accommodations for persons with disabilities, contact Nancy Keith at least one week in advance of event at 336-679-2061.

Nancy W. Keith  
County Extension Director



## Public Hearings on Research Stations

As instructed by the Legislature, NCSU, NC A&T and NCDA&CS are currently working together to develop a comprehensive strategic plan for managing research stations. The primary objectives are to enhance efficiency, improve effectiveness and modernize the facilities for agricultural research.

**The following regional meetings have been scheduled to receive public comments and to receive input into the strategic planning process:**

Wednesday, December 10, 2008

6:00 pm

*Tidewater Research Station  
Plymouth, NC*

Tuesday, December 16, 2008

6:00 pm

*Wake County Office Park  
Commons Building, Raleigh*

Wednesday, January 14, 2009

1:00 pm

*Mountain Research Station  
Waynesville*

If you have questions, please do not hesitate to call me at (336)679-2061.