

# ProfitPro<sup>®</sup>AG invites **YOU** to call in on the third **THURSDAY** of the month for the **FREE TELECONFERENCE**

*A cost-effective and convenient way to gain knowledge on new crop production technologies*

**It's Easy . . . It's FREE**

## **UPCOMING SUBJECTS**

**Thursday, April 16, 2015**

8:00 p.m. CDT (Central Daylight Time)

### **How to Get Started Using Cover Crops in 2015**

**T. J. Kartes**, *ProfitProAG Consultant*, will discuss several steps to consider for those thinking about utilizing cover crops in either a traditional corn/soybean rotation or as a livestock producer. T.J. will relate several years of experience implementing cover crop programs in the Southern Minnesota area that will include producer backed data. He will also discuss the role of “media hype” and relate some realistic one to five year expectations when implementing a cover crop program.

### **Manure Application Increases Value of Cover Crops**

**David Widman**, *ProfitProAG Consultant*, will discuss how bioaugmented manure and cover crops benefit the soil. Cover crops retain more nutrients from bioaugmented manure by holding these nutrients in plant form and protecting the soil from erosion, which keeps plant nutrients in and on the soil for future crop use. Cover crops stabilize the soil temperature, provide soil protection and a better home for the soil microbial community.

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For more information visit [www.profitproag.com](http://www.profitproag.com) and click on “Teleconference Informational Materials.”

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**Learn what steps to consider in a COVER CROP PROGRAM  
and how BIOAUGMENTED MANURE and COVER CROPS  
can BENEFIT THE SOIL in your farming operation  
with this FREE Teleconference**

#### **Unsecured and Secured Financing Available for 2015**

Contact David Widman (who has over 30 years of bank lending experience, mostly in agriculture, and grew up on a family farm) about either input or operational financing for 2015 from AgriSpan. With qualified credit, an UNSECURED loan can range from \$10,000.00 to \$250,000.00; secured financing limit based on your operation. Call 507-640-1095 or email [widmanag@gmail.com](mailto:widmanag@gmail.com) for details or to apply.

#### **DIRECTIONS FOR CALLING IN**

1. Dial the toll free number **1-855-212-0212** at 8 p.m. **SHARP** (CDT) to get in from the beginning.
2. Enter the meeting ID No. **769-100-082#** (pound or hashtag key).
- 3. Please call from a quiet place or press \*6 to mute your background noise.**
4. Press \*6 again to **Ask Questions** during the Q & A portion of the program.
5. **NO FEE** or pre-registration required.
6. Access the teleconference anytime between 8 to 9 p.m. (CDT)

# **ENHANCING THE VALUE OF SWINE MANURE AND NUTRIENT AVAILABILITY WITH APPLICATION TIMING AND COVER CROPS, NPB Project #07-031.**

2007-2008 Annual Report

Gyles Randall and Jeffrey Vetsch  
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## **Introduction**

Swine manure has long been recognized as a valuable source of nutrients for corn production. Escalation of fertilizer N, P, and K prices in the last few years has brought a new level of value to swine manure. Moreover, many corn growers are obtaining greater yields with swine manure compared to fertilizer (also proven in our research during the 80's and 90's). These two factors have generated a keen interest in maximizing the nutrient value of manure among swine producers. However, due to manure storage limitations and/or time management of both the producer and the custom applicator, some swine producers desire to apply some of their manure in the summer after harvest of wheat, peas, or sweet corn. Cover crops such as oats or rye are being considered by some producers to stabilize N from the manure by using the cover crop to take up some nitrate and transpire water, minimizing nitrate loss from the soil profile if wet conditions occur. Currently, we are not aware of any research information which documents the availability of nutrients, primarily N, from these late summer hog manure applications or the role an oat cover crop could play in maximizing the value of manure N. Thus, the objectives of this research are to: 1) determine corn yield, N uptake, N availability and nitrate distribution in the soil profile as affected by late summer and fall application of swine manure with and without an oat cover crop, 2) determine the value of fall manure applications with and without an oat cover crop compared to spring application of swine manure and urea fertilizer, and 3) provide valuable information to pork producers and corn growers on the value of swine manure as affected by time of application and a cover crop.

## **Conclusions**

The following bulleted remarks capture the generalized findings obtained in this 2007-2008 research effort.

- Although grain yields were not statistically significant among the five application dates, likely due to a high amount of mineralizable soil N at this site, there was ample evidence that early and late August applications of hog manure are problematic in a fall with wetter-than-normal conditions.

Soil samples taken from as deep as 4 feet from late August to the following June showed reduced levels of NO<sub>3</sub>-N for the August applications compared to the late October and spring applications. Stover and total DM yields, stover N concentration, total N uptake, relative leaf chlorophyll, and NDVI at the V8 growth stage provide additional evidence of poor performance of August-applied hog manure.

- Oats (ForagePlus) planted in early August can produce up to almost 2 tons DM/acre while yields reached about 0.75 tons DM/acre when planted one month later. The August 31 planting produced sufficient DM to scavenge N and protect the soil from erosion.
- Coupling an oat cover crop seeded on the same date as the two manure applications in August, severely reduced soil NO<sub>3</sub>-N levels, corn yields, and N uptake by the corn compared to the non-cover crop treatments. The oat cover crop was a very effective scavenger and immobilizer of manure N and soil N. Thus, the resulting corn crop was starved for N, which limited corn production significantly and reduced NUE. This was especially true when oats were planted in early August, indicating that this planting date is too early and can cause significant negative consequences.
- Based on these 1-year data, forgoing a cover crop of oats and simply applying liquid hog manure in late October or in the early spring was the best management practice, resulting in highest yields and N uptake by the corn.

### **Acknowledgement**

Grateful appreciation is extended to the National Pork Checkoff, who support this project with funding.

Web sites for more information on slurry seeding cover crops:

Tim Harrington – Michigan State University

<http://www.northcentralsare.org/Educational-Resources/Multimedia/American-Society-of-Agronomy-Cover-Crops-Webinar-Series/Combining-Livestock-Manure-and-Cover-Crops>

<https://ntf.no-tillfarmer.com/pages/Feature-Articles---Seeding-Cover-Crops-With-Liquid-Manure.php>

[https://www.youtube.com/watch?v=3stoqZ\\_3vHo](https://www.youtube.com/watch?v=3stoqZ_3vHo)

<http://www.mccc.msu.edu/SlurrySeeding.html>

[https://www.youtube.com/watch?v=hXkA6nb3\\_1s](https://www.youtube.com/watch?v=hXkA6nb3_1s)