

May–July Edition



# Management Solutions



**Agronomic Solutions, LLC**

Summer 2016 Issue

## **\*\*Changes at IDEM Permitting\*\***

There have been major changes in the IDEM Confined Feeding Permitting personnel. IDEM has rearranged their staff which may affect length of time required to get Permits approved.

Tom Park and Dan Bruggen will now be permitters in the southern part of the state. The northern portion of Indiana will now be served by **Mitchell Halcomb** (in the east) and **Brock Sroufe** (in the west).

The new *Compliance Inspector* in the northeastern portion of the state is **Nathan Halcomb**.

We anticipate that things should go back to a “normal flow” as we adjust to the way they approach permitting, and they adjust to the way we write the permits. We are hoping that we can all remain patient as we make the adjustments.

## **Pre Side-dress Nitrate Test (PSNT) ...**

A PSNT test is used in the field right before the corn is side-dressed (6”-12”) to get a “snapshot” of the amount of nitrogen available to the plant. Considering the cost of nitrogen, if you haven’t prepaid, you don’t want to put on anymore than you have to for maximum yield. This test is targeted to be used in fields where manure has been applied in the past year or if it has a history of previous applications. The test will also be accurate on high organic matter fields. I would **not** recommend it on sandy fields with no history of organic sources of nitrogen being applied.

The procedure to have us PSNT sample for you requires you to:

- (1) Call us with a planting date to be pre-scheduled for pulling since the window for pulling samples is very limited.
- (2) Seven to five days before you want to side-dress your crop, call again to let us know you’re ready for sampling.
- (3) We will come out and pull the samples, refrigerate them and get them to the lab.
- (4) The lab processes the samples the next day and we get results to you for side-dress amounts required.



The cost for this service is \$3.00/acre. So, if you think you can save yourself about 10 lbs. of nitrogen per acre, this service will pay for itself in increased management on your part. Sometimes the test shows that you lost more nitrogen than normal from your manure application and it requires more N to be applied; but because you had the PSNT sampling, you caught it early and saved yourself from possible yield loss. So you’re a winner either way.

***Plan ahead!***

***Call us today to set up an appointment***

This is a seasonal publication produced by Agronomic Solutions, LLC for the confined feeding operators. Issues and information addressed in the newsletter will be geared towards animal feeding operation owners and managers. Hopefully you will find its contents useful in your operations. (260) 593-2092

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## Value of Manure Current Book Values ...

The charts below show the average manure value per acre.

### Current Fertilizer Prices—May 24, 2016

28% Semi- prepay	560# N / ton	\$255 / ton	\$0.427 / # N
11-52-0	1040# P <sub>2</sub> O <sub>5</sub> / ton	\$470 / ton	\$0.457 / # P <sub>2</sub> O <sub>5</sub>
0-0-60 Semi	1200# K <sub>2</sub> O / ton	\$331 / ton	\$0.254 / # K <sub>2</sub> O

Swine Grower Pit			Dairy Lagoon		
N	32.2	\$13.75	N	7.4	\$3.16
P	20.5	\$9.37	P	6.2	\$2.83
K	26.3	\$6.68	K	12.2	\$3.10
	Per 1000 gal	<b>\$29.80</b>		Per 1000 gal	<b>\$9.09</b>

4000 gal / A = \$119.2 / acre

12,000 gal / A = \$109.08 / acre

Beef – Manure Pack			Litter - Broilers		
N	6.4	\$2.73	N	34.6	\$14.77
P	8.8	\$4.02	P	55.7	\$25.45
K	12.2	\$3.10	K	52.1	\$13.23
	Per ton	<b>\$9.85</b>		Per ton	<b>\$53.46</b>

25 ton / A = \$246.25 / acre

5.0 ton / A = \$267.3 / acre

Duck—Liquid		
N	26.9	\$11.49
P	25.0	\$11.43
K	24.5	\$6.22
	Per 1000 gal	<b>\$19.13</b>

5,000 gal / A = \$195.65 / acre

...now worth an  
average of  
\$187.50 / acre

Working with a technician to set up the variable-rate lime application, Bruns realized he had the same Artex spreader that Greenfield was looking to purchase. "It made me realize we could do this for manure just as easily," says Bruns.

"The best part was that I already had Ag Leader's Integra monitor, which can be moved effortlessly from the planter or combine to the spreader," says Greenfield. "All it cost me to have the ability to variable-rate the manure was \$3,000 to add a flow valve and a speed sensor. Being able to get the most out of the technology when I don't have the extra funds to spend is a smart strategy."

### CRUNCHING THE NUMBERS

Although Greenfield is in the first year of varying the amount of manure being applied to his fields, early estimates show an impressive return on investment.

"My annual P and K costs are close to \$60,000 for both my corn and soybean acres," says Greenfield. "By variable-rating the manure, I will be able to save roughly \$30,000 on my corn ground and \$26,000 on beans. My return on investment for a technology that only cost me \$3,000 is huge."

As a bonus, that amount doesn't even include the savings he'll see in nitrogen. "It's going to cost me \$43 per acre to buy nitrogen commercially this year," says Greenfield. "My cost went from \$150 per acre to less than \$50 per acre because of the way I'm applying the manure."

Correctly calculating the rate of manure per acre starts with knowing its nutrient value. He takes manure samples at least two to three times a year. Based on all this information, maps are developed to accommodate his varying soil. "I have one field that is getting zero manure in one area and 12 tons in another," says Greenfield.

A scale on his spreader also verifies how much is being hauled to each field. "I know exactly what I'm applying and where. If there is ever a question and I need to go back and look at the records, I can easily do that," he says. Because manure is being placed so precisely, he may see another benefit. "After next year, I might have extra manure to sell. Every ton is worth a minimum of \$11."

### TEST MANURE FIRST

Before manure is applied, make sure it's tested. Studies by the University of Minnesota (UMN) find nutrient values for nitrogen, phosphorus, and potassium vary 300% from farm to farm for the same species.

Testing manure IS extremely critical in sound nutrient management, from an agronomic, an economic, and an environmental perspective. Precision application is a great technology to use since the nutrients needed do vary across a field. If you don't know the analysis of the manure you're applying, it diminishes the value of the variable-rate application."

## PRECISELY PLACING MANURE SIGNIFICANTLY OFFSETS FERTILIZER COSTS

The nearly 8,500 tons of manure Jon Greenfield's 1,000 head of Black Angus cattle produce annually is a valuable nutrient resource for his crops. The brown gold not only contains nitrogen, phosphorus, potassium, and other nutrients but also adds organic matter to the soil. In turn, this can amend soil structure, aeration, soil moisture-holding capacity, and water infiltration.

"A local insurance adjustor has said that he can tell whether or not growers have livestock by looking at their field's actual production history," says Paul Bruns, a precision agriculture consultant. "On average, their yields are 10% higher than the grain farmer with no livestock manure to apply on fields. There's that much potential benefit from manure."

For years Greenfield, who grows 1,400 acres of corn and soybeans in Balaton, MN, has been applying a flat rate of manure across his fields. "Once Paul and I started looking at soil tests and the nutrient recommendations, I was amazed at how much manure I was underutilizing," he says.

Greenfield found a way to combine the technology he was already using in crop production to precisely apply the eight loads of manure he hauls weekly, which totals 32,000 pounds.

"The idea for variable-rate manure began when we did some variable-rate lime," says Bruns.

There can be a wide range of pH levels in any given field. When ground was grid soil-sampled, it really drove that point home. "Yes, pH will run from 4.7 to 8.4 in the same 80-acre field," explains Bruns.

"Variable-rate lime turned out to be one of the fastest paybacks compared with just a flat rate."



## **Indiana Avian Flu Quarantine Lifted ...**

*"Everything is off quarantine now — all of it,"* according to State Board of Animal Health spokeswoman Denise Derrer

The last remaining quarantine imposed last winter on southwestern Indiana poultry farms swept by a bird flu outbreak has been lifted. Officials hope this prompts nations that banned poultry imports from the state or entire U.S. to end those sanctions.

The first of the 10 farms where the H7N8 viral strain infected birds in January had its quarantine lifted March 19. The nine other farms saw their quarantines lifted in the intervening weeks.



As the 10 farms start restocking their birds, each will be tested 30 days later as an added precaution, Derrer said.

The H7N8 virus was found in mid-January at one Dubois County turkey farm before being detected at nine other poultry farms in the county about 70 miles west of Louisville, Kentucky. More than 414,000 turkeys and chickens were euthanized to contain the bird flu outbreak on those farms and others nearby.

Derrer said the lifting of the last of the 10 quarantines coincides with Indiana meeting the World Organization of Animal Health's criteria for being virus-free after going 90 consecutive days with no new cases of the poultry disease.

Some nations blocked poultry imports from all of Indiana, or parts of Indiana, while others blocked poultry imports from the entire U.S. Now that Indiana has met the virus-free criteria, it is expected that nations such as Mexico — a significant importer of U.S. poultry — will eventually end their bans on poultry from Indiana, which has the nation's fourth-largest poultry industry.

One of the farms hit by the virus, Tip Top Turkey Farm in Jasper, had to euthanize its 23,000 turkeys in January. But owner Stephen Sander said his farm is now back in business. Several weeks ago he filled his brooder house with day-old turkeys and once those birds get a little older they'll move to another barn where they'll grow into adults.

"We're really glad this is finally over and everything is back to near normal," Sander said Monday.

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## **Facility to be one of nation's largest, supporting Indiana's agriculture industry ...**

**FORT WAYNE, Ind.** (March 18, 2016)

Walmart, the nation's largest grocer, announced plans today to establish a milk processing plant in Fort Wayne, providing new opportunities for Indiana's dairy industry and creating more than 200 good-paying jobs ranging from milk processing to transportation by the end of 2017.

"Today, Indiana's agriculture industry contributes \$31 billion to the state's economy and supports more than 100,000 Hoosier jobs," said Governor Mike Pence. "I'm proud to welcome this expansion as we work to create quality jobs for Hoosiers and support our Indiana farmers."

With construction anticipated to begin this summer, Walmart will build a more than 250,000-square-foot milk processing plant, which is expected to be one of the largest in the industry. The highly-efficient plant will leverage the latest technologies to produce Great Value and Member's Mark white and chocolate milk for more than 600 Walmart and Sam's Club locations in Indiana, Illinois, Michigan, Ohio and Northern Kentucky. Walmart estimates that milk processing will begin in the summer of 2017.

"By operating our own plant and working directly with the dairy supply chain in the Midwest, we'll further reduce operating costs and pass those savings on to our customers," said Tony Airosso, senior vice president of sourcing strategy for Walmart U.S. "This facility is an example of how we are always finding efficiencies within the supply chain to deliver everyday low prices and high quality groceries."

With more than 1,200 Hoosier dairies, Indiana produced more than 4 billion pounds of milk last year — 348 million pounds in December alone — but approximately 4 million pounds are exported every day.

"When preparation meets opportunity, good things happen," said Nelson Peters, Allen County Commissioner. "We are extremely excited to welcome Walmart here with this unique project. By tying agriculture to economic development, we are acknowledging the importance of our agricultural base while providing great paying jobs for our citizens."

Walmart employs more than 38,000 associates across Indiana and operates ten distribution centers in the state. The retailer's community giving to local organizations includes tens of millions of dollars in cash and in-kind donations from its stores, Sam's Clubs and the Walmart Foundation. In fiscal year 2015, Walmart spent \$1.7 billion with Indiana suppliers, supporting more than 33,000 Hoosier jobs.

"This is tremendous news for Indiana and not only affirms our dairy strategy is working, but also that our business climate and geographic location is conducive to economic development in the agriculture industry," said Ted McKinney, director of the ISDA. "I applaud Walmart's decision and commitment to support Indiana's dairy farmers and for growing this robust, vital industry in our state."

Indiana is home to 21 dairy processing plants and 14 farmstead operations, helping the Hoosier state rank No. 14 in the nation in milk production and No. 2 in ice cream production. On average, Indiana has roughly 184,000 milk cows which can produce 61 pounds of milk per day, accounting for nearly 2 percent of total U.S. milk production.

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## Dates to Remember ...

**Category 14 Test Dates: Purdue Univ.**  
Stewart Center, Starts at 1:30 PM  
June 2 & 6; July 6; Aug. 3; Sept. 6; Oct. 3;  
Nov. 22; Dec. 13

**Cat. 14 Exam at H&R Block Testing Centers**  
Locations: Ft. Wayne & Mishawaka;  
Call 1-800-345-6559 to schedule.  
Registration fee \$29.

### EXAM PROCEDURES for all locations:

1. Bring a government-issued photo ID
2. Exams are closed book, multiple choice
3. Only single-function calculators without printers are permitted. NO cell phones, PDAs or computers
4. Exam time limit: 90 minutes

### PARP EVENT Pinney Purdue Diagnostic Training

Weed Management Update; Pollinator Protection in Specialty Crops; Early Season Corn Growth; Early Season Soybean Development

**Date:** Wed Jun 22 2016 9 AM to 4 PM CDT

**Location:** Pinney Purdue Ag Center, Wanatah

**Contact:** Gene Matzat, (219) 324-9407  
ematzat@purdue.edu

**Registration Deadline:** June 15. \$50 + \$10 PARP fee, includes Corn & Soybean Guide and meal.



**Aug. 3, 2016: TOUR DAY**

**Aug. 4, 2016: MANURE EXPO**

**Location: London, Ohio**

**Register at:**

**<http://www.manureexpo.org>**

### FREE EXPO PASS AUGUST 3-4, 2016 INCLUDES:

- Outdoor exhibition for larger outdoor vendor sets
- Land application demonstrations
- Manure agitation demonstrations (preregistration encouraged; shuttle bus will be provided to site)
- Educational seminars

**TOURS 1-3 (Preregistration is required)**