



# Management Solutions

Agronomic Solutions, LLC

Spring 2017 Issue



## Introducing Brandi Drake

We are pleased to introduce our newest “Manure Lady”, Brandi Drake. Brandi joined Agronomic Solutions in February to assist in any area where needed. Not only does she answer the phone, but she does the tedious time consuming jobs for the consultants so they can spend their time doing the more specialized areas of

your projects. She is also being trained to take on more of the work load in specialized areas.

Brandi and Joe have been married 19 years and have 3 children: Jared, Isaac age 8 and Jayni age 5. They are the proud grandparents of Melody Mae, the daughter of Jared and his wife Megan.

Brandi enjoys vacationing, cooking, fishing, gardening and “taking care of her chickens”.



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

### Spring To Do Checklist ...

Spring is a busy time of year with a lot of work to get done. Here is a quick reminder to make sure everything gets done.

- Get us updated soil samples
- Clean out and inspect manure storages
- Collect manure samples for analysis
- Calibrate manure spreaders
- Spread manure/fertilizer at agronomic rates
- Update manure spreading & operating records
- Complete spring tillage
- Inspect / calibrate planter and drill
- Accurately & carefully plant your crops
- Scout fields for emergence
- Replant only if necessary

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## Value of Manure - Customer Averages ...

The charts below show the average manure value per acre.

### Current Fertilizer Prices—Mar. 21, 2017

28% Semi- prepay	560# N / ton	\$225/ ton	\$0.402 / # N
11-52-0	1040# P <sub>2</sub> O <sub>5</sub> / ton	\$420 / ton	\$0.404 / # P <sub>2</sub> O <sub>5</sub>
0-0-60 Semi	1200# K <sub>2</sub> O / ton	\$305 / ton	\$0.254 / # K <sub>2</sub> O

Swine Grower Pit			Dairy Lagoon		
N	32.2	\$12.94	N	7.4	\$2.97
P	20.5	\$8.28	P	6.2	\$2.50
K	26.3	\$6.68	K	12.2	\$3.10
	Per 1000 gal	<b>\$27.90</b>		Per 1000 gal	<b>\$8.57</b>

4000 gal / A = \$111.60 / acre

12,000 gal / A = \$102.84 / acre

Calf – Manure Pack			Duck—Liquid		
N	7.3	\$2.93	N	26.9	\$10.81
P	10.4	\$4.20	P	25.0	\$10.10
K	13.3	\$3.38	K	24.5	\$6.22
	Per ton	<b>\$10.51</b>		Per 1000 gal	<b>\$27.13</b>

15 ton / A = \$157.65 / acre

5,000 gal / A = \$135.65 / acre

Broilers (Layers) - Litter			
N	34.1 (34.1)	\$13.71	(\$13.71)
P	60.8 (85.6)	\$24.27	(\$34.58)
K	60.3 (60.3)	\$15.32	(\$15.32)
	Per ton	<b>\$53.30</b>	<b>(\$63.61)</b>

3.0 ton / A = \$159.90 (\$190.83) / acre

...now worth an  
average of  
\$143.07 / acre

## Accounting for Your Manure Nutrients...

It is very important for your state permitted farms that you account for your manure nutrients. *If you need help figuring out your credits from your fall and/or spring applications, please call our office.*

### Nitrogen Management

How can you make sure you have enough Nitrogen and still be compliant with state rules? Sometimes this really feels like a balancing act. However, having a “management plan” and doing what it says will help to insure no over-application.

To stay in compliance with Indiana and Michigan rules you are not allowed to apply more nitrogen than what the crop can use in a single growing season.

A lot of farmers need a “wake up call” to help them understand the importance of knowing and recording just how much they are applying and when. People are watching! And people may be out to inspect your records due to the different rules. This is important in both Indiana and Michigan.

There is a way you can still legally apply more N to your field. It starts with a PSNT test. You MUST have the PSNT test results in your records to justify the extra N application. See [PSNT...only approved test to allow extra N fertilizer applications](#) on page 4 to have us do your PSNT sampling.

Be sure to have your records (ie: *inspections, spread records, annual manure samples, soil tests every 3 years*) up to date.

Please call us if you have any questions or concerns about your N program.

## Finding Win-Wins for Manure...

Manure contains *organic matter* which is the *energy source essential to a healthy soil microbial system*.

Farmers will often notice a greater earthworm population in manured soils. When manure is added to the soil, it is quickly colonized by millions of bacteria. These organisms derive their energy and nutrients from the organic matter and, during decomposition of the organic matter, produce large quantities of polysaccharides that allows soils to form aggregates. Soils with organic matter levels on the low end of their typical range can benefit the most from manure applications that do not exceed the crop’s nitrogen requirements. Soils that crust over after a rain also benefit from manure’s organic matter.

The results will be increased infiltration of precipitation and irrigation water, greater water-holding capacity of the soil, and reduced runoff and erosion. Soils with these characteristics experience greater drought tolerance and pose less environmental risk. While environmental risks of manure are often highlighted (typically a result of excessive application rates), the potential environmental benefits of manure are often ignored.

### Achieving Higher Economic Wins

To achieve a higher economic “win” from manure:

- Prioritize application to fields with soil P concentrations of 20 ppm or less.
- Avoid annual manure applications on the same field. Wait for soil P concentrations to return to a 20 ppm target before reapplying manure.
- Apply manure ahead of non-legume crops benefiting from supplemental N.
- Conserve the ammonium N value by incorporating the manure into the soil immediately. This is especially important for swine and dairy slurry manures.
- Credit the manure’s organic nitrogen for the second and third cropping years after a manure application.
- Target fields requiring potassium, sulfur, or micro-nutrients. Fields requiring potassium have a much greater economic return from manure application.
- Apply manure at a rate less than the N requirement of the intended crop, and then side-dress the crop with commercial fertilizer based upon in-season soil or crop N measures.

### Achieving Soil Quality Wins

To maximize soil and environmental quality “wins” from manure, focus on applying to:

- Fields with lower organic matter. High manure applications on low organic matter sands can lead to nitrogen leaching. Carefully credit manure and all other sources of N (avoid leaving N in the soil at harvest) and apply manure as close to the growing season as practical.
- Fields with low soil P concentrations.
- Fields with greater runoff or “crusting” after a rainfall.
- Fields that experience drown out losses from ponding.
- Fields with low pH.
- Fields with limited signs of biological activity (e.g., few observations of earthworms).

## BioSecurity - Avian Flu...

*"Until further notice in Alabama, bringing chickens or any type of birds together for exhibition or sale is banned, including at regional and county fairs, festivals, swap meets, live bird markets, auctions and flea markets.*

*"State agriculture officials issued that "stop movement" Wednesday as the investigation continues into three suspected cases of avian flu in the northern part of the state. The order is designed to keep the flu from spreading."*

These are the opening statements of an article posted on Thursday, March 16, 2017.

The Alabama cases did not appear to be directly related to the first confirmed case this year of "highly pathogenic" avian flu just north of the Tennessee line. More than 70,000 chickens were killed at a breeder farm in Lincoln County (TN) as a precaution in that case confirmed March 5. As of the 16<sup>th</sup>, three cases were being followed in Alabama. **"We know migratory birds are carrying this,"** stated Auburn University poultry science professor Ken Macklin. As of March 22<sup>nd</sup> only 2 cases are confirmed in Alabama.

The Lincoln County facility was the first commercial poultry breeding operation in Tennessee that tested positive for H7N9 highly pathogenic avian influenza (HPAI).

On March 8, officials confirmed the detection of H7N9 low pathogenic avian influenza (LPAI) at a commercial poultry premises in Giles County, Tennessee. This virus is not the same as the China H7N9 virus affecting Asia and is genetically distinct. As of March 22<sup>nd</sup> there have been the have been three confirmed cases in Tennessee.

On March 21<sup>st</sup>, federal and state authorities reported a case of low pathogenic avian influenza detected in a commercial poultry flock in western Kentucky. This was confirmed on the same day, the only case confirmed in Kentucky. Kentucky State Veterinarian Robert C. Stout said there were no clinical signs of disease in the birds. The affected premises is under quarantine, and the flock of approximately 22,000 hens was depopulated as a precautionary measure.

Keeping in mind the massive outbreak of the bird flu in 2014 and 2015, chicken producers should gear up for tighter security to avoid the spread of the infection.



What is the impact of the bird flu spreading? Another outbreak also means killing or culling of the birds. This in return may act as a financial blow for the operators, as well impose strict import bans from other countries. **However, health officials have confirmed that the risk of the disease spreading to people or food is minimal.**

With the news of the infection affecting a farm in Tennessee, trading partners like South Korea and Japan, have restricted their shipment. In addition, shares of Tyson, based in Springdale, Arkansas, fell and the news dragged down shares of other companies as well.

"Our whole industry from coast to coast has been put on a heightened biosecurity alert," says James Sumer, President of the USA poultry and Egg Export Council.

***We all need to be reminded of the importance of following good biosecurity procedures.*** A major way to help protect your animals (birds, cattle, hogs, etc.) is to control farm traffic. Infectious diseases can be carried by people and equipment. Producers should:

- Keep your distance – Isolate your birds from visitors and other birds, including and especially **wild birds**.
- Limit access on the farm to anyone who may have been at another farm.
- If you borrow equipment, make sure it has been cleaned before using it on your farm.
- Limit people's access to the barn. This may mean locking your barn.
- Make sure visitors wear clean boots and clothing in the barn. This is important if visitors have already been in other barns.
- Don't haul disease home – Clean vehicles and cages.
- Have sale animals (or dead animals) picked up without allowing the transporter to enter the barn or come in contact with your other animals.
- Keep record of all visitors. It's difficult to control all traffic, but you can identify the traffic that represents the most risk.
- Know the signs – Watch for early signs to prevent the spread of disease.



\*\*\*As an FYI: Agronomic Solutions consultants follow biosecurity procedures as we come to visit your operation. We wear clean disposable booties when we come onto your farm. We make it a practice to only enter one barn a day to prevent the spread of disease.

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## PSNT...only approved test to allow extra N fertilizer applications · Manure in the News ... “Wall of manure created just to make neighbors miserable!”

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:

- (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**



When the Gallants and Murrays of Indian Mountain (New Brunswick) stopped getting along, a giant, stink-

ing mound of manure suddenly grew between them.

It came from the Murrays’ beef cattle and was piled high along the Gallants’ property “just to make them miserable,” said Judge Rideout in a recent ruling in the dispute between the two families. “When neighbors fight, nothing good results.”

Murray dumped what Gallant called, “a mountain of manure” beside his property. Gallant described the manure as fresh, wet and raw, saying, “The smell of manure was so bad it cut your breath away.”

Despite requests to the Murrays to remove the manure, the pile remained and was even spreading onto the Gallant property. The Gallants filed the lawsuit against the Murrays and the judge ruled in the Gallants’ favor.

For their deeds, the Murrays must pay \$17,689.12 in damages and court costs.