

October – November Edition



# Management Solutions



**Agronomic Solutions, LLC**

Fall 2017 Issue



Whitley County  
planning meeting

## **Producers, Beware! Eyes are Watching ...**

Farmers beware! We find ourselves living in a time of environmentalists looking for any infraction of the rules to shut down Confined Animal Feeding operations. We also find ourselves living in the age of satellite imagery and drones making it easier for the environmentalists to find suspicious looking confined animal feeding operations. Not only can they smell, see and hear the sound of the animals (hogs in particular), but now they can see them from the sky.

On September 18th, the Des Moines Register reported that about 5,000 more pig confinements and cattle lots across the state have been discovered through satellite imagery than originally believed existed. That's nearly 50 percent more animal feeding operations than the state initially inventoried. Of course, this discovery is more than enough to give increased ammunition for the environmentalists. As you read past the headlines, you find out that those operations fall below the state regulation numbers, but that doesn't stop people from becoming alarmed.

Another headline in same paper in June of 2016 stated "Iowa hog confinement loopholes causing a stink". The article describes a man who dreamed of retiring to his family's 145-year-old farm, sitting outside listening to the quiet. Instead, he and his wife found themselves "surrounded by 2,400 loud, smelly pigs" located about two blocks from their front porch.

The number of animals requiring a state permit is 2,500. Producers are being accused of skirting the law and abusing the state loopholes by staying under the 2,500 limit. Iowa lawmakers are being accused of shying away from revising the state's hog confinement laws, "being unwilling to reopen an extremely divisive can of worms in a state where the pork industry holds considerable political sway."

Do these issues sound familiar? All states, *including Indiana and Michigan*, are facing similar confrontations. In a day of increased protests over any and all issues, this is not likely to go away. Producers, beware!

First, make sure you are complying with all state and county environment rules and regulation. Also, BE GOOD NEIGHBORS! Go out and meet your neighbors and build friendly relationships. Do all you can to find places for your barns that will not be offensive. It is to your best interest if you will go beyond and above the requirements of state and county. The goal of a growing number of people/groups in reference to rural counties with a high number of CFOs and CAFOs is to say "No More!"

\* To learn more about activist groups in Indiana and Michigan check out these websites.

Hoosier Environmental Council (HEC) hosts workshops to empower Hoosiers to Fight Factory Farms website: [www.hecweb.org](http://www.hecweb.org)

See what's happening in Whitley County website: <https://www.whitleywatermatters.com/>

Michigan: website: [www.nocafos.org](http://www.nocafos.org)

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 - Customer Averages ...

The charts below show the average manure value per acre.

### Current Fertilizer Prices—October 19, 2017

28% Semi- prepay	560# N / ton	\$167 / ton	\$0.298 / # N
11-52-0	1040# P <sub>2</sub> O <sub>5</sub> / ton	\$430 / ton	\$0.413 / # P <sub>2</sub> O <sub>5</sub>
0-0-60 Semi	1200# K <sub>2</sub> O / ton	\$295 / ton	\$0.246 / # K <sub>2</sub> O

Swine Grower Pit			Dairy Lagoon		
N	32.2	\$9.60	N	7.4	\$2.21
P	20.5	\$8.48	P	6.2	\$2.56
K	26.3	\$6.47	K	12.2	\$3.00
	Per 1000 gal	<b>\$24.54</b>		Per 1000 gal	<b>\$7.77</b>

4000 gal / A = \$98.18 / acre

12,000 gal / A = \$93.23 / acre

Calf – Manure Pack			Duck—Liquid		
N	7.3	\$2.18	N	26.9	\$8.02
P	10.4	\$4.30	P	25.0	\$10.34
K	13.3	\$3.27	K	24.5	\$6.02
	Per ton	<b>\$9.75</b>		Per 1000 gal	<b>\$24.38</b>

15 ton / A = \$146.20 / acre

5,000 gal / A = \$121.91 / acre

Broilers (Layers) - Litter			
N	34.1 (34.1)	\$10.17	(\$10.17)
P	60.8 (85.6)	\$25.14	(\$35.39)
K	60.3 (60.3)	\$14.82	(\$14.82)
	Per ton	<b>\$50.13</b>	<b>(\$60.39)</b>

3.0 ton / A = \$150.39 (\$181.16) / acre

...now worth an  
average of  
\$131.84 / acre

## Manure and Hay...

Making manure applications to production hay fields is an option for many growers if they have the ability to deliver “light and uniform” rates. This practice not only supplies needed nutrients, but may help alleviate some manure storage issues during the growing season.

For solid manure, try to limit rates to 10-12 tons per acre. A 10-ton-per-acre dairy manure application will supply 30 pounds of nitrogen, 30 pounds of phosphorus, and 70 pounds of potassium. Liquid applications should be in the 3,000- to 4,000-gallon-per-acre range. A 4,000-gallon-per-acre dairy manure application will supply 28 pounds of nitrogen, 20 pounds of phosphorus, and 64 pounds of potassium. Not all manure is created equal so you will need to find the numbers that correspond with your type manure.

Apply the manure as soon as possible after cutting to avoid burning the emerging growth. Target your older fields. Not only does this limit damage to your new hay fields but the grasses present in older stands will benefit from the nitrogen.

## Cover Crops -

### Manure's Best Friend ...

After the fall harvest there is little crop residue and, regardless of soil type, machinery and rain pack the soil making the surface hard and impermeable. Much of the surface applied manure will be carried away by the next rain.

#### Consider the Cover Crop.

The roots of the cover crop make the soil surface more permeable so water and manure pollutants are less likely to move over the surface. The top growth reduces runoff. Manure nutrients are literally held hostage over the winter. The nitrogen is harnessed in the roots and green tissue ready to be released in the spring when the cover crop is killed off. Even if only 40 pounds per acre of nitrogen are retained, spring fertilizer costs can be reduced by \$30 per acre. The savings increase when phosphorus and potassium values are included.

*Cover crops not only improve soil quality, add organic matter and reduce compaction, but a green cover crop in late winter and early spring makes a good impression on your neighbors.*

Remember, the cover crop must be killed in the spring, not harvested, for the nutrients to be saved for the new crops. Cover crop seedings do not have to be perfect. The goal is not yield per acre but nutrient recovery and environmental protection per acre.

## Making the Right End of Year Nitrogen Decisions ...

The Late Season Cornstalk Nitrate Test has been demonstrated to be a reliable end-of-season indicator of crop N status. It provides a good assessment of whether the crop had the right amount of N, too much N, or whether it ran out of gas. This information combined with records of N management can be very useful for making and fine tuning future N and manure management decisions.

For the test results to be valid the sampling instructions must be followed carefully. Samples for this test should be taken between ¼ milk line and up to 3 weeks after black layer. An 8-inch long section of corn stalk starting 6 inches above the ground is collected from at least 10 representative plants in a field.

Research has shown that samples could be taken up to 24 hours following silage harvest. For this to work the corn must be chopped at least 14 inches high so that you can still get the correct sample ie. 8-inch long sections of corn stalk starting 6 inches above the ground. Some farmers will raise the chopper head occasionally to leave some taller stubble to facilitate sampling later. Don't delay any longer and, in general, be careful if there is any stalk deterioration.

If the results of the test fall between 700 and 2000 ppm N, this indicates that the N management was optimum. Below this range the crop likely ran out of N and did not achieve full yield potential and results above this range indicate that the crop had more than enough N which could represent an economic loss from purchasing unnecessary fertilizer N or wasted manure N and it could result in increased potential for loss of N to the environment.

**Contact me if you have questions and /or if you are interested in doing the Late Season Cornstalk Nitrate Test.**

## Plan BEFORE You Spread Manure ...

Preplanning and record keeping are vital when spreading manure in today's world. **There are a number of things that must not be overlooked:**

### • **Manure Sampling**

Are you staying on top of the manure sampling that is required for the various plans? I find that this is an area where the majority of the producers I work with struggle.

According to the Indiana regulations, if you have a CFO or a CAFO *you are required to have an annual manure sample* for all storages.

That means you must pull a sample from each storage **EVERY** year.

- **Have current Soil Tests—know p levels**
- **Make sure you are spreading the correct agronomic rates**
- **Stay within the proper setbacks**
- **Have the proper licenses—Category 14**
- **Record your weather data (CAFO)**
- **Calibrate your spreader**
- **Call us if you have any questions!**

## STEPS TO TAKE WHEN PULLING MANURE SAMPLES

1. Pull the manure samples
2. Freeze the samples and keep frozen
3. Call me and I will stop by, pick them up, and get them to the lab for you - **or** - call me to get my lab ID so you can turn it in. However you choose to get the samples to the lab is OK — **JUST DO IT!** And then ... make sure I get the results.

### **Staging Restrictions that apply to EVERYONE:**

- Stage 300' away from surface water, water well, drainage inlets
- Cannot stage in a waterway, floodway or standing water
- Cover, or berm, pile after 72 hours
- Stage 100' from property line or public road
- Stage 400' from residential buildings
- Do not stage on an area of greater than 6% slope
- Do not stage on the side of a hill
- **Apply to field within 90 days**



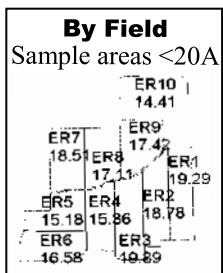
## Soil Sampling ... How should you sample?

It is time to start making plans for your fall soil testing. With government regulations, we want you to be able to stay in compliance as well as have the most efficient and productive fields.

**Grid Sampling** would give you the information for the best placement of nutrients for your fields. When pulling soils by grid we use a 2.5 acre staggered grid. With grid sampling we can offer you more complete recommendations and site specific fertilizer rates.



**Field Sampling** which satisfies the government regulations should be done with no field area over 20 acres. We offer fertilizer recs with your field sampling.



### **OR YOU COULD USE BOTH TYPES OF SAMPLING**

To make decisions agronomically, Grid Sampling is the most efficient method and will help improve the overall production of your fields. However, when you turn in the soil test data to the state, if you have one

area too high in Phosphorus, you can no longer spread manure in that area.

When you turn in the test data by using the Field Sampling method you will have pages with more averaged data. This keeps your manure spreading options as open as possible.

Make sure that your field samples are pulled according to University recommendations, less than 20 acre samples. **This helps you to pull the samples deeper and also helps with your phosphorus levels. Just be consistent throughout your fields.** Remember that this will dilute or lower your potassium and pH levels, so it's not good agronomic data.

**Samples may be taken either in the fall or spring. Fall sampling ensures the test results are ready in plenty of time for spring or for fall fertilization.**

**Contact us today to get on the fall sampling schedule.**

## ***If you have an IDEM Permit, you cannot winter time spread*** **Category 14 Reminder ...**

If you have an IDEM permit and YOU spread manure, you need to have the *Category 14 License*. This includes the following:

1. You spread manure commercially from your operation or from another permitted operation
2. You spread manure on your own fields
3. You buy or receive manure from another CFO or CAFO to spread on your fields

If you sell or give away manure from your IDEM permitted farm, you must get a **Distributors License**. This must be applied for annually at \$45 per year.

*Distribution renewals are due at the end of the year. The State Chemist should send you the renewal information. Let me know if you do not receive it.*

Contact us if you have not gotten your license so we can get a class for you.

### **Cat. 14 Renewals ...**

Do not over-look the State Chemist mailing. If you spread manure, you are required to renew your Cat. 14.

**Requirements for maintaining a Category 14:**

- 3 continuing Credit Hours (CCH's) in a 5 year period
- A certified applicator may obtain no more than half the number of required CCH's at any single program

There will be plenty of opportunities to get points and take the exam this winter and next spring. Watch for details in the next edition of our newsletter.

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## Attention Indiana and Michigan CFOs ...

**NOW is the time to get the process started for both IDEM Permits in Indiana, and Siting Requests in Michigan, if you want to start building by spring.** Everything is taking longer than in the past. It is taking three (3) months or longer to get your permit applications approved. Both IDEM and the MDA have become very particular. This is part of the reason for the increased time to get approval for CFO building.

Call us to get things started. Applications need to be submitted by the end of the year for you to start building by April.

## Fall To Do Checklist ...

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

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Safely harvest crops                  | <input checked="" type="checkbox"/> Spread cover crops on liquid surface applied fields |
| <input checked="" type="checkbox"/> Clean out and inspect manure storages | <input checked="" type="checkbox"/> Update manure spreading & operating records         |
| <input checked="" type="checkbox"/> Collect manure samples for analysis   | <input checked="" type="checkbox"/> Sign up for NRCS EQIP contracts                     |
| <input checked="" type="checkbox"/> Spread manure at agronomic rates      |   |
| <input checked="" type="checkbox"/> Calibrate manure spreaders            |   |
| <input checked="" type="checkbox"/> Soil sample land application fields   |   |

## Dates to Remember ...

### Notice Michigan CAFOs...

**Nov. 1—Dec. 30:** MI CAFO deadline to prove 6 months storage online -  
\*Contact us to help fill this out

### Notice for EQIP ...

**Dec. 15:** Application deadline for EQIP 590 & 595

### We will exhibit at these farm shows - come see us!

**Jan. 16-18, 2018: Fort Wayne Farm Show**  
@ Allen Co. War Memorial Coliseum,  
Ft. Wayne, IN

**Feb. 2-3, 2018: Northern Indiana Grazing Conference**  
@ MEC (Michiana Event Center),  
Shipshewana, IN

### Other dates for your calendar ...

**Feb. 14-17, 2018: National Farm Machinery Show**  
@ Kentucky Exposition Center,  
Louisville, KY