

September–November 2020 Edition



# Management Solutions



Agronomic Solutions, LLC

Fall 2020 Issue



## Covid 19 Update

Beyond what any of us ever imagined, here we are going into October and still dealing with the pandemic and it's effects on every aspect of our lives.

At Agronomic Solutions we are still trying to take necessary precautions. As some of you may know, we had several in the office who tested positive to the virus, but with little to no symptoms. So, after more quarantining, we are all back in the office. We are slowly getting back to in person visits and soil sampling is at peek time right now. In fact, TJ was happy for a drizzly day so he could put his feet up and have a relaxing day. If you still need soil sampling, don't hesitate to call to get on our schedule. And don't forget to keep your manure sampling up-to-date. The lab is working.

### IDEM

- \* Employees are still working from home, going into the office one day a week. Thankfully we are able to be in contact.
- \* They are doing compliance inspections in special cases and permitting visits only if there is a problem, such as neighbor concerns.
- \* All reports and renewals must still be kept up to date to be in compliance.

### COUNTY (Indiana)

- \* Meetings in all Indiana Counties are back in session with masks required.

*Sadly, the stress of these times has produced extreme emotions and reactions from neighbors to almost anything that has to do with animals and manure. Be prepared for resistance to building a new barn or even managing the manure this fall from your existing barn. Try to remain calm and maintain a good relationship with those who live around you. When this is over, you want to be able to live at peace with your community.*



### Fall To Do Checklist

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

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

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—Sept 30, 2020

28% Semi- prepay	560# N / ton	\$165 / ton	\$0.295 / # N
11-52-0	1040# P <sub>2</sub> O <sub>5</sub> / ton	\$455 / ton	\$0.438 / # P <sub>2</sub> O <sub>5</sub>
0-0-62 Semi	1200# K <sub>2</sub> O / ton	\$270 / ton	\$0.225 / # K <sub>2</sub> O

Swine Grower Pit			Dairy Lagoon		
N	32.2	\$9.49	N	7.4	\$2.18
P	20.5	\$8.97	P	6.2	\$2.71
K	26.3	\$5.92	K	12.2	\$2.75
	Per 1000 gal	<b>\$24.37</b>		Per 1000 gal	<b>\$7.64</b>

4000 gal / A = \$97.50 / acre

12,000 gal / A = \$91.65 / acre

Calf – Manure Pack			Duck—Liquid		
N	7.3	\$2.15	N	26.9	\$7.93
P	10.4	\$4.55	P	25.0	\$10.94
K	13.3	\$2.99	K	24.5	\$5.51
	Per ton	<b>\$9.69</b>		Per 1000 gal	<b>\$24.38</b>

15 ton / A = \$145.40 / acre

5,000 gal / A = \$121.88 / acre

	Broilers - Litter	(Layers - Litter)
N	34.1 (34.1)	\$10.05 (\$10.05)
P	60.8 (85.6)	\$26.60 (\$37.45)
K	60.3 (60.3)	\$13.57 (\$13.57)
	Per ton	<b>\$50.21 (\$61.06)</b>

3.0 ton / A = \$150.64 (\$183.18) / acre

...now worth an average of \$131.71 / acre

## Drought Map

Sept. 24, 2020

Abnormally Dry Moderate Drought

Watch your yields. If yields are down because of drought conditions, you should apply less manure to your fields to account for the left over nutrients from 2020 applications.



## Soil Sampling Reminder

A good soil sampling program is the basic building block for your entire farming operation.

- ◆ Are your soil samples 2-3 years old?
- ◆ Do they represent areas greater than 20 A?

If you answered "yes" to either question, you should pull new samples this fall!



Consider intensively sampling your fields by Grid Sampling every 2.5 A grid on the field

Contact us today to get on the fall schedule for regular (20 A/sample) or grid sampling.

Samples may be taken in fall or spring. Fall sampling ensures the test results are ready in plenty of time for spring or for fall fertilization when weather usually is good and time not so critical.

## Planning Fall Manure Applications 8 Things to Keep in Mind

Now's the right time to start thinking about fall manure applications. Here are eight key things to keep in mind as you plan.

1. Start prepping equipment to make sure everything's looking good for fall application.
2. Plan ahead for which crops will receive manure applications. Remember the regulations for maximum application rates.
3. Wait until soil temperatures are below 50 degrees Fahrenheit. At these cooler temperatures nitrogen is more likely to stay in the organic or ammonium forms. In warmer soil temperatures, nitrogen converts to nitrate, a form that can be lost more quickly.
4. If you want to apply 1-2 weeks earlier, studies have shown some indications that applying with a nitrification inhibitor may potentially help, but don't expect that to last if you apply in September.
5. If you're going to apply in late summer or early fall following sweet corn and canning crops, get a cover crop on the field to preserve some of the nitrogen.
6. Keep weather conditions in mind. If you're surface applying, don't put it on one or two days before a large rain event.
7. Incorporate whenever possible, especially within 24 hours.
8. **Safety is key.** When handling manure, gases can build up and cause human health or combustion issues. Have an emergency action plan in place and avoid working alone near manure storages, especially if the manure has recently been moved or is being actively agitated.



## Upgrading Soil Sampling Equipment

We are excited that we will soon have a new WINTEX 1000 soil probe mounted on our 4-wheeler. This soil probe ensures all samples are taken from the same depth, making results more reliable. It is extremely user-friendly. All operations are easily carried out from the driver's seat. This will speed up the process of sampling as well as put less wear and tear on T.J's body 😊



## Silage Leachate

Water quality is of high importance for all rural residents. Since drinking water is generally obtained through ground water sources, these ground water sources need to be protected from contamination at all costs.

Silage leachate is an organic liquid formed when water comes into contact with silage, or from pressure from the structure. It can be formed as a part of silage storage, especially if the ensiled forage is more than 70% moisture. It can also form when rain water comes into contact with the silage and carries nutrients with it.

Silage leachate has an extremely high BOD, or biochemical oxygen demand. This means it has a very high potential for oxygen consumption. If the leachate reaches surface water, oxygen will be consumed so quickly that anything alive in the water is immediately put at risk. As little as 1 gallon of leachate can lower the oxygen content of 10,000 gallons of river water to critical levels for fish survival. Silage leachate also has nutrients that harm groundwater, mainly being nitrate-nitrogen. Also the acidic nature of silage leachate can burn or kill vegetation in the area where it drains.

To prevent silage leachate, it must be properly harvested and stored. It can be captured by constructing lined ponds or collections bases, but these are costly measures. An alternative to this is making efforts to minimize silage leachate production. Harvesting at optimal moisture content, firm packing of silage materials, and maintaining proper feedout are just a few examples.

Covering the silage is an important management practice. Covers preserve forage quality by minimizing airflow into the pile, and reduce leachate production by preventing rainfall from penetrating the silage and solubilizing nutrients. Covering a bunker preserves feed value and improves palatability and feed intake. Plastic covers should be applied so that rainwater and snowmelt is channeled off of the forage pile.

Leachate can be diverted to well-ventilated manure storage facilities or treated through the use of filter areas, absorption systems, constructed wetlands or vegetated leachate treatment areas.

**CAUTION:** *Never mix silage effluent in enclosed tanks because silage effluent mixed with manure slurry will accelerate the release of hydrogen sulfide gas. Add seepage only to uncovered outdoor storages.*



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## Plan Ahead: Cover Crops

Now is the time to plan for cover crops to be planted in late summer or early fall. Cover crops offer many benefits that increase farm profitability, environmental sustainability and should be considered an integral part of any farming system that wants to efficiently utilize nutrients, improve soil quality, and increase profitability. Target cover crops on fields you spread manure on during the summer fall and winter. This will help to “capture” some of the nitrogen and keep it around for the upcoming corn crop.



Choose the cover crop which creates the greatest benefit to you. Each cover crop has a special purpose. **Legume cover crops** are typically used to produce homegrown nitrogen.

**Ryegrass cover crops (cereal rye or winter rye)** are used to increase soil organic matter, recycle excess nutrients, and reduce soil compaction. **Brassica cover crops (oilseed radish)** are grown to loosen the soil, recycle nutrients, and suppress weeds.

Cover Crops should be planted as early as possible in most cases—end of August or first of September. The seeding rates for annual ryegrass are:

*Drilled = 15 lbs. per A      Broadcast = 20 lbs. per A      Aerial = 25 lbs. per A*

Soybeans and later applications should be drilled and increase rates for later seeding. For more growth, increase the rate of seeding because competition makes taller plants. If aerial seeding, you need to watch for drifting. Drifting onto neighbor's wheat = problems! Consider drilling the outsides of your field to reduce drift. Make contacts now to start scheduling your cover crop applications by air.

Cereal rye is good if planted late in the season, mid to late October and can easily be applied with a dry spreader. Ryegrass is also great to pasture. For pasturing it is best if seeded early (July) after the wheat harvest, but may need to be sprayed in November to kill because it might get too big.

Select winter hardy varieties of grass for our area. Bounty is outstanding in winter hardiness, rust resistance and strong forage yields. It has the ability to root down to 5 feet after 3 years of use. This extensive rooting increases the soils organic matter, water infiltration, erosion control and will capture any available N and P left in the soil and hold for following crops. The benefits multiply from multiple years of application of cover crops. Three to four years of use will break up more compaction, especially good for fields with drainage problems. With Ryegrass soil nutrition can be managed much deeper than the normal 8". Continual use of annual ryegrass has shown dramatic yield increases, especially in drought years.

**Deeper roots = deeper nodules = more soybean bushels**

Radish must be planted early. It needs at least two months of growth before winter kill.

Winter peas can produce 100 lbs. N if you plant in August (early).

Again, cover crops are very important to your over all crop production. They improve the physical status of the soil, create more oxygen and eliminate soil compaction.



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## Dates to Remember ...

### Michigan CAFOs:

#### **November 1 - December 30:**

MI CAFO deadline to prove 6 months  
storage online

\*Contact us to help fill this out

### Parp points meetings

#### **December 3, 2020:**

**Noble Co. PARP & CCH**  
Albion, IN - Dekko room  
**time to be announced**

\*Call Agronomic Solutions for  
information (260) 593-2092

### 2021 Fort Wayne Farm Show

#### **January 12, 13, 14, 2021**

at Allen County Memorial Coliseum  
Fort Wayne, IN

### Northern Indiana Grazing Conference

#### **February 5 & 6, 2021:**

at The MEC, Shipshewana, IN

## Manure in the News

Taken from *The Guardian*, April 29, 2020

The Swedish city of Lund is to spread chicken manure in its central park in an effort to deter crowds gathering to celebrate Walpurgis Night on the last night of April.

Lund is home to one of Sweden's biggest universities and many of the municipality's 125,000-odd inhabitants are students who habitually gather in the park in the afternoon and evening for picnics before the Walpurgis party officially gets underway. But officials want to keep people away because of the coronavirus outbreak.

"Lund could very well become an epicentre for the spread of the coronavirus on the last night in April," the chairman of the local council's environment committee, Gustav Lundblad, told the *Sydsvenskan* newspaper.

"We get the opportunity to fertilise the lawns, and at the same time it will stink and so it may not be so nice to sit and drink beer in the park," Lundblad said, adding that the only potential drawback was that the smell may not be confined to the park."

"I am not a fertiliser expert, but as I understand it, it is clear that it might smell a bit outside the park as well," Lundblad admitted. "These are chicken droppings, after all. I cannot guarantee that the rest of the city will be odourless. But the point is to keep people out of the city park."

Philip Sandberg, the leader of council, told the paper it would "not be a pleasant experience ... to sit in a park that stinks of chicken manure. But it will be good for the lawns, as chicken manure contains a lot of phosphorus and nitrogen, so we'll get a really nice park for the summer."