

Winter Edition



Management Solutions

Agronomic Solutions, LLC



Winter 2009 Issue

Announcing

NEW WEBSITE

www.agronomicsolutionsllc.com

We are excited to announce the beginning of the new Agronomic Solutions website. For you to remain competitive in your farming operation you need to have information that is easily available.

On our website we will endeavor to keep you updated on the latest information or at least give you easy to find web links to access that information. There will be links to a variety of useful websites. My plan is to continue to add information, sites and articles as I find them. This will save you hours in having to search the web to find this information on your own. The website will be updated every two weeks.

You will be kept up-to-date on compliance issues and things you can do to have environmentally sound farming practices. We will also do our best at keeping you informed of Farm Shows and other educational opportunities.

Your feedback will be appreciated.

Winter To Do Checklist

Winter is a time to step back and catch your breath from the busy cropping seasons. But to keep your competitive edge you must keep organized and educate yourself.

- Research and choose the best hybrids for your farm.
- Attend Farm Shows and meetings to see new ideas and equipment.
- Visit your NRCS DC to learn about cost-share programs and opportunities.
- Update your manure spreading and distribution records.
- Update your IDEM/ DEQ operating records binder.
- Complete your annual NDPES report.
- Analyze yield maps with a professional, if available.

This is a seasonal publication produced by Agronomic Solutions, LLC for 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. (574) 202-2608

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The Updated Value of Manure—What goes up must come down

The charts below show what the average manure value is per acre.

Current Fertilizer Prices

0-0-60 Semi	1200# K ₂ O / ton	\$900.00 / ton	\$0.75 / # K ₂ O
28% Semi- prepay	560# N / ton	\$330.00 / ton	\$0.589 / # N
11-52-0	1040# P ₂ O ₅ / ton	\$ 630.00 / ton	\$ 0.61 / # P ₂ O ₅

Swine Grower Pit			Dairy Lagoon		
N	33	\$19.44	N	2.1	\$1.24
P	33	\$20.13	P	9	\$5.49
K	27	\$20.25	K	9.3	\$6.97
	Per 1000 gal	\$59.82		Per 1000 gal	\$13.70

4000 gal / A = \$239.28 / acre

15,000 gal / A = \$205.50 / acre

Beef – Manure Pack			Litter - Broilers		
N	5.3	\$3.12	N	23.4	\$13.78
P	5.0	\$3.05	P	30.9	\$14.82
K	7.6	\$5.70	K	24.3	\$18.22
	Per ton	\$11.87		Per ton	\$46.82

25 ton / A = \$296.75 / acre

5.0 ton / A = \$234.10 / acre

After increasing for six consecutive years, U.S. fertilizer prices are finally beginning to fall at the wholesale level, according to a report from the American Farm Bureau Federation.

As you can see on the charts, the amounts have dropped since the fall newsletter where they averaged \$350 / acre. This is just strictly the nutrient value, not the extra biological and organic benefits. Even though the amounts have declined some, manure can still add a significant benefit to your farm if managed properly. You should want to spread this manure on as many of your row cropping acres as possible. This means you need to lower the rate so that you can cover more acres and calibrate your manure spreading equipment. It's important to know what rates you are actually spreading. Taking credit for these nutrients that you apply will add up to big savings on your fertilizer bill.



2009 EQIP Update



We still don't have details and guidelines of how EQIP will be distributed in 2009. It will be at least the end of February before the information is released.

Congress is currently working at cutting money made available to EQIP in the new 2008 Farm Bill by \$285 million. Once the final details are released the money is going to go *very quickly!* EQIP is becoming an increasingly popular program, with more and more producers signing up every year, not only in Indiana, but in every state. You can start the application process now or at any time with your NRCS District Conservationist.

It's imperative that you get started planning now!

Are you thinking of having a CNMP written for your farm, looking into having increased manure storage built, wanting to utilize nutrient management, take advantage of waste utilization, use cover crops...or wanting to use any of those new practices? Then I ***strongly urge you*** to make an appointment with your local District Conservationist and get the process started. There's lots of paper work for the DC so if you get started now you will be positioned as soon as the money is made available.

I have a list of DCs. Call me for help.

REMINDER: NRCS is funding all CNMP's. If you are a CFO (Confined Feeding Operation), especially if you are regulated by IDEM, you will at some point be required to have a CNMP done on your farm. Why not sign up now while there is still hope of government assistance? I can guarantee that once IDEM requires the CNMP, NRCS will no longer be able to fund them. Then the cost of that document will come out of your pocket. Get in on the funding while it is still available.

Hybrid Selection: *Where's the Beef?*

I remember the excitement as a kid when the first Christmas mail-order catalogs would arrive from Sears, JC Penney... I think some of that excitement lingers today when the seed corn sales literature arrives or when I attend a seed company field day. All hopes of a record, bin-busting crop are represented in those glossy multi-color pages that extol the virtues of the latest and greatest hybrids with every imaginable bio-tech trait that promise to beat last year by 20 bushels per acre.

In the "old days", a guy would wait until January or February to place a seed order. By then, you had the time to peruse yield reports from your local land-grant university variety trials or from the seed companies to identify the hybrids you wanted. Today sales pressure occurs before the current year's variety trials have even been harvested. *What's a guy to do?*

Sales pitches should serve only to heighten your awareness of seed companies, their hybrid traits, or specific hybrids and should NOT take the place of meaningful yield data from well-designed hybrid performance trials.

When you are pressured to choose this hybrid or that one because the sales rep assures you it will perform well, don't hesitate to ask for the performance data that backs up the recommendation. Be like the little old lady in the 1984 Wendy's™ hamburger commercial who demands to know "Where's the beef?". Before you lock next year's hybrid choices in place, take time to peruse the results of a variety of trials from the previous year.



How do you identify CONSISTENT performers that will

**DOCUMENTED
CONSISTENCY**
*in yield performance is
still the key to success
in selecting hybrids
that will perform well.*

likely perform well for you? The secret lies in looking for trials that evaluate hybrids over multiple locations. Multiple testing locations in a single year represent possible weather patterns your farm may encounter. Weather variability influences

hybrid performance more than any other variable. Weather interacts with most of the other yield limiting factors. If a hybrid performs CONSISTENTLY well over many sites (i.e., weather patterns), then it will likely perform well on your farm in the future. (Re-read this paragraph!)

Seek out summaries over many locations. *Avoid concentrating on single site results.* For multiple site trials where the data has been statistically analyzed, CONSISTENT performers are most likely within the upper group of similar-yielding hybrids as determined by a trial's L.S.D. value. For multiple site trials where statistical analysis has not been performed, identify CONSISTENT performers by evaluating hybrid performance relative to the average yield of the trial or relative to the maximum yield.

Look for those hybrids that CONSISTENTLY yield 5% above the average yield of trials. If the trial average yield is 180 bpa, look for hybrids yielding 189 bpa or greater (180×1.05).

Another way is to identify hybrids that yield at least 90% of the maximum yielding hybrid in a trial. If the highest yield is 225 bpa, look for hybrids that yield 203 bpa or greater (225×0.90).

Excerpts from the Corny News Network (Purdue Univ.)
By: R.L. (Bob) Nielsen, Agronomy Dept., Purdue Univ.

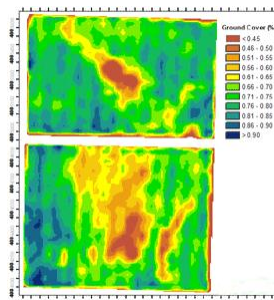
Yield Mapping, Are you using the results?

Yield maps are a key component of precision agriculture, due to their usefulness in both development and evaluation of precision management strategies. The ultimate goal for the application of yield maps is to provide profitable crop output in farming systems. But just having a pretty map doesn't help you save money or increase your bushels per acre.

Are you really using the information in the yield maps in your farming operation? If not, consider hiring a professional to tailor make a soil sampling and fertilizer recommendation program from your yield maps. There are plenty of software programs available on the market to accomplish this task.

One of the biggest problems with utilizing soil tests for fertilizer recommendations under a variable rate application system is the uncertainty over whether crops growing in the particular spot where the test is taken will yield the same as crops in other locations in the field. If a field averages 150 bu/acre corn, maintenance fertilizer recommendations call for replacement of the P and K removed by the crop across the whole field. In reality, fields have a wide range in yield (for example, from 90 to 210 bu/acre). Using yield maps to correctly identify where the high-yielding areas and low-yielding areas (plus everything in between) are located would allow a more exact replacement

of nutrients removed by a previous crop. Relying solely on soil tests for fertilizer recommendations tends to over fertilize low-yielding areas and under fertilize high-yielding areas. Combining yield mapping and soil testing would reduce the amount of over fertilizing of low-yielding areas and under fertilizing of high-yielding areas. This may prove to be economically as well as environmentally friendly.





The new website for Agronomic Solutions, LLC is up and running.

Though we are still under construction feel free to check us out. There is a lot of work needed but we have started!!

The *Management Solutions Newsletter* and Newsletter Archives will be available to read, download or copy.

More pages, information, photos, etc. will be added as we go. There are mini-polling questions for your information and enjoyment.

Again, we need to hear from you as to what you would like included. We want our website to be a valuable tool to help you build your business.

We need your input to better serve you.

Spreading Manure on Frozen Ground

The challenge for a livestock producer is to apply manure in a way that is labor-efficient, cost-effective and environmentally responsible. Extra precaution and care are needed in winter spreading because manure on frozen and snow-covered ground is not predictable.



Evaluate the Risk of Surface Runoff from Frozen and Snow-covered Ground: The first step in creating a field-by-field land application plan for winter spreading is to evaluate each field. **Any fields adjacent to surface water or to a ditch that flows to surface water are high-risk fields.** Do not use these fields for spreading on frozen and snow-covered ground.

If storage is full, the best choice is to transfer the manure to another storage structure. If you must land apply manure, you can reduce the risks by choosing flat ground a long distance from a stream or tile inlet. Lower the spreading rate of the manure. And, only remove just enough manure from storage to keep the storage from overflowing before spring.

The risk goes up as snow depth increases and the time between application and the spring thaw decreases.

*Following rules and regulations are important but **you the producer need to realize that you are the one held responsible** if runoff occurs and the manure reaches surface or groundwater and causes a water quality violation.*

Michigan Technical Standard for surface application of CAFO waste on frozen or snow covered ground

A field by field assessment must be completed and all of the following requirements must be met and documented:

1. The Manure Application Risk Index (MARI) must be completed to identify fields, or portions of fields, that scored 37 or lower on the MARI.
2. An on-site field inspection of the entire field, or portion of the field, that scored 37 or lower has been completed. The inspection will take into consideration the slope and location of surface waters, tile line risers, and other conduits to surface water.
3. Based on the on-site inspection, the CNMP will include documentation on topographic maps, the fields where the runoff will not flow to surface waters, and designate those areas as the only areas authorized for surface application to frozen or snow-covered ground.
4. The inspection and documentation in the CNMP will be approved by a certified CNMP provider.

The assessment must be submitted as part of the CNMP Executive Summary each year.

CAFO Update

Indiana

The EPA has finalized a ruling to help protect the nation's water quality by requiring CAFOs to safely manage manure. The new rule effectively sets a "zero-discharge" standard for all livestock operations. **The final rule provides a voluntary "no-discharge" certification option for CAFOs that do not discharge or propose to discharge.** Non-discharging operations must use sound management practices to avoid all discharges or face stiff penalties. Violations of the new CAFO rule carry penalties of up to \$32,500 a day.

Permit holders must also use similar practices to meet the zero-discharge standard. For the first time CAFOs are required to submit a NMP as part of a CAFO's Clean Water Act permit application. The regulation requires that if a CAFO actually discharges to streams, lakes and other waters, or intends to discharge, they must apply for the NPDES permit. The ruling deadline for newly defined facilities to apply for permits is Feb. 27, 2009.

IDEM will have one (1) year to iron out all the details and implement the new rule. So, for now continue *business as usual* if you currently carry a permit with no history of a discharge. For this year continue to use the same forms and permits as in the past. Your NPDES annual reform is still due on Feb 15th this year. **I will keep you updated on changes as they occur and when IDEM completes the process for getting rid of your current NPDES permit.**

For up to date information go to the **Links** and **News** pages of *Agronomic Solutions* website.

Michigan

Upon initial review of the new regulations it appears that they will have little if any impact on Michigan CAFOs.

These new and revised regulations control the manner in which EPA must administer its National Pollutant Discharge Elimination (NPDES) Permit program under the Federal Clean Water Act (CWA). Michigan has an independent State statute as well as regulations for the control and permitting of discharges and potential discharges of pollutants to Michigan's ground and surface waters. In recognition of Michigan's statute, and in accordance with the CWA, the EPA has approved the Michigan permitting program. Based on this approval, EPA does not issue NPDES permits in Michigan. To be approved by EPA, Michigan had to demonstrate that their statutes, regulations, and programs were as protective of the water resources as the federal program.

Under NREPA and its regulations, all CAFOs in Michigan are still required to apply for discharge permits and follow Michigan program requirements. The federal regulations are still under review by the DEQ to determine if there are any impacts to the Michigan program.

Farm Safety

Man drowns in manure lagoon

Dec 20, 2008

Bluffton, IN - Authorities say a Bluffton man apparently drowned when a skid loader he was operating fell into a manure lagoon in Wells County.

Headlines like these should never happen and can be avoided by following good safety practices. The first level of safety around manure pits is to control unauthorized access by installing fences, guard rails and locks on pit doors and covers. Place warning signs to prevent drowning and engulfment. Maintain good ventilation at all times.

Decomposition of manure creates gases such as hydrogen sulfide, carbon dioxide, ammonia, and methane. These gases are hazardous because they are toxic in high concentrations. Covered pits and tanks of manure, along with manure pits within buildings, pose the greatest hazard of gas buildup. Regardless of the storage type, when manure is disturbed through agitation or pumping, the risk of gas release is the highest. Remove all unnecessary personnel from around a manure pit before agitation or pumping. Maximize ventilation in the area through fans and blowers. Start the agitation slowly in order to control potential gas release. *Never enter a manure pit during or immediately after agitation or pumping.*

When you must enter a manure pit, wear an air-supplying respirator to ensure a supply of good breathing air and use confined space entry procedures by wearing a harness and lifeline. Note that many accidents and deaths occur when people become overwhelmed by the gas buildup. Multiple deaths are common as rescuers quickly become victims. Never enter a manure pit to rescue a family member or worker. Call 911. Give details so the rescuers will bring the proper equipment.

Remember, safety is it, when you're in the pit!

Two Farm Laborers Die in Oxygen-deficient Manure Pit
Farmer, Wife, 2 Daughters And Farmhand In Virginia Were Overcome By Methane
Dairy Farmer Found Dead in Manure Pit
Father, son die after accident at farm
Gas Fumes in Manure Pit Kill Five Michigan Farm Workers

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Newsletter



*Hope you had a very
Merry Christmas
and wishing you a
Blessed and Prosperous*

*New
Year!*



Dates to Remember

2009

- January 13 -15:** Fort Wayne Farm Show
Ft. Wayne, IN
- February 6:** 2009 NE Indiana Grazing Conf.
Shipshewana, IN
- February 11 - 14:** National Farm Machinery Show
Louisville, KY
- February 15:** *Indiana NDPES Annual Report
filing deadline*
- April 1:** *Michigan NDPES Annual
Report forms due*
- July 29:** Manure Field Day
Albion, IN