

Planning for Your CAFO Permit Future

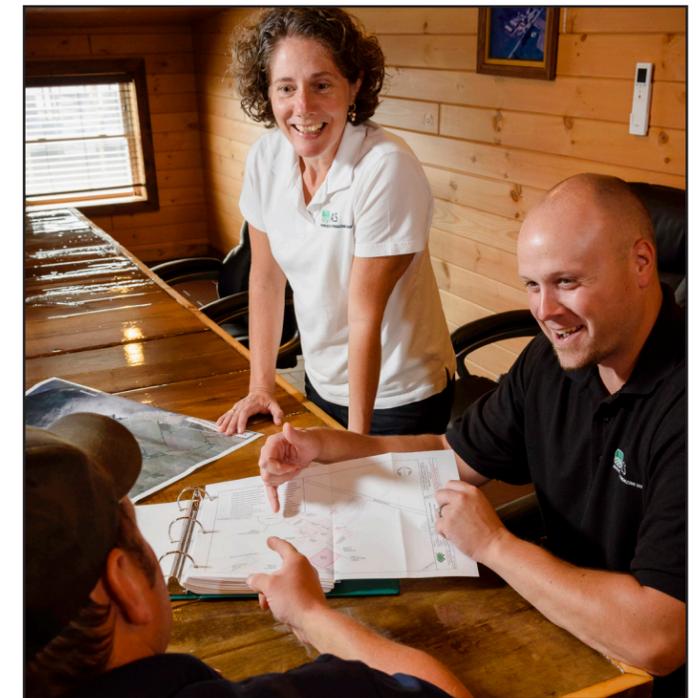
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In 2009, the New York State DEC proposed significant changes to their CAFO permitting structure. To refresh your memory, think back to the discussions you had with your ACS Planner about preparing for your CAFO plan to become a public document, hiring an engineer to re-evaluate existing structures on your farm, and deciding if the ECL (State) or the CWA (Federal) permit was right for you.

Inactivity from the NYS DEC since those changes were proposed might lead the casual follower to believe that the changes to the permitting process have stagnated or have been scrapped all together. The changes proposed in 2009 are still very much alive and probably closer than you think. The NYS DEC hopes to release new permits for public comment in the fall of 2015 with a proposed effective date in the spring or summer of 2016. Smart farms have been and will continue to treat this 6 year hiatus as borrowed time.

Here are 8 questions that the manager of any regulated New York State farm should be asking:

- 1. What impact would increased manure spreading restrictions have on my business?** A “calendar date” winter spreading ban does not seem to be imminent, but new restrictions have been proposed. A limit on daily manure spreading rates (in addition to the limits already imposed by N-based planning and the P-Index) and mandatory storage periods for regulated farms have been debated. Although NYS DEC is currently against an outright winter spreading ban, it would not be surprising if these new restrictions transformed into a “calendar date” ban in the not-so-distant future. You should start preparing for that possibility sooner rather than later.
- 2. Do I want an ECL (State) or a CWA (Federal) permit?** Many farms consider the requirements of the CWA permit to be impossible to meet. Those same farms are concerned about the legal protection offered by the ECL permit. So, what to do? Every farm will be different and a meeting between you, your ACS Planner, and your lawyer might be appropriate.
- 3. Am I eligible for coverage under the ECL (State) permit?** The CWA permit requires a public comment period for variations to the plan as common as changing the crop grown in any given field. The alternative is ECL permit coverage, but to be eligible a farm will be



CAFO Plan review.

Photo Contest

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This fall harvest season has given us awe inspiring sunrises, sunsets, days filled with color, and beautiful mature crops. We would love to see your fall harvest photos!

Enter your photos in our contest. Winning photos will be decided by the number of “likes” on our Facebook page. Thank you in advance for sharing your images with us—we can’t wait to see the autumn splendor you captured!

To enter, click on the Photo Contest tab located on our Facebook page, or directly access the link here: <https://goo.gl/eNvXDw>



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The Journey of a Soil Sample: From Field to Recommendation

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Do you soil sample? Soil sampling is the first step for all ACS fertility plans, and the results provide the foundation for building a farm's fertility program. Soil sample results are used for all lime and nutrient recommendations except nitrogen. Soil samples can also be used as the first step in diagnosing a problem in a field, to watch trends across a farm, to justify changing a standard fertilizer blend, and/or to add micro-nutrients to a blend. Soil sample results for phosphorus are also an important component of field risk assessments for CAFO compliant plans. ACS technicians sample each field included in a nutrient management plan a minimum of once every three years. Below is the process ACS uses to go from taking a soil sample to forming recommendations for a farm.

In the Field

First, we sample fields according to their sub-field management zone. Within each zone we assess the shape of the zone to determine the best path to take for sampling. We often use a zigzag pattern across the field to make sure that we are collecting a sample that represents the whole field or section. Most fields are comprised of multiple soil types and varying nutrient levels. Therefore, it is important to take multiple sub-samples in each field in order to acquire an accurate representation of the soil.

Depending on the size of the field or section, we take 10-20 core samples, which are 6 to 8 inches deep. We scrape core samples into a bucket on our ATV. Once we have covered the entire field, we mix the soil in a bucket to make a homogeneous sample, and put it in a sample box labeled with the client code and field number. When we get back



Gathering soil samples.



ACS Technicians use ATVs to sample fields quickly.

to the office, we print a label for the soil box. Labels are important because the barcode on the label allows for seamless transfer of field data from the ACS advising database to the lab and then transfer of lab results to our database and also to Fields and Crops records-keeping software. Once labeled, the sample is handed off to the Agro-One Soils Lab.

In the Agro-One Soils Lab

At the lab, the boxes are first put in a drying oven at 50 degrees Celsius. The samples are pulled out and ground up to pass through a 2mm sieve. A scoop of the sample material is run through a robotic test for pH. Another scoop of roughly 2 grams of soil is weighed and burned at 500 degrees Celsius for two hours. Then it is weighed again, to get the difference, and the results are used to calculate organic matter content. For elemental analyses, more soil is scooped and mixed at a 10:1 ratio of extractant to soil. This is filtered and run through an ICP machine that extracts the nutrients from the soil. All of this information is run through the Lab Information Management Software (LIMS) system, which calculates the results back to parts per million. The results are uploaded to the ACS database.

ACS soil samples are usually run in one of two analyses packages: 801 for pH, CEC, Base Saturation, P, K, Ca, Mg, Al, Na, Zn, Cu, B; or 802 for all the previous analyses plus S, Mn, and Fe.

Recommendations

Once the soil sample test results are available, we can start to make recommendations. First we determine what

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CAFO Permit, continued

required to meet a yet to be determined "non-discharging" threshold. We have heard many ideas about what it means to be "non-discharging." Certainly all of your BMPs will need to be installed and working to qualify. Will your plate cooler water discharge exclude you from eligibility? Will DEC require that we modify existing structures to handle a 100-year storm instead of a 25-year storm? These are questions that will be answered in the coming months. In the meantime, maintain your farm in a manner that ensures that you have the option to choose between the permits when the time comes.

4. When I buy the neighbor's farm, what impact will that have on my CAFO permit?

The simple answer is that you have no grace period to bring the facility up to speed. Once it is integrated with your current business, all BMPs are required to be implemented. There are indications that this could change in the new permit but it is hard to say for sure if that will become a reality. Your best bet is to invite your ACS Planner to the new farm so you can better understand the challenges that come with it. This might also be a good time to let Farm Bureau and/or NEDPA know how you feel about this topic.

5. Are my manure transfer systems and vegetated treatment areas up to snuff?

Unless your entire manure transfer system has Engineer stamped documentation and your vegetated treatment area was constructed after 2009, this applies to you. If you haven't already you should be working with your ACS Planner and your Engineer to make sure you have the Engineer documentation that you need.

Soil sampling, continued

crop is currently in the field, what the next crop will be, the desired pH range, and the desired nutrient levels for each of the fields. Nutrient and lime recommendations are evaluated for each field. Then field by field nutrient needs are evaluated at a farm level in order combine fields into application groups and to pick one or two rates for nutrient and lime recommendations.

Recommendations made in the fall are typically Lime, and fall potash with or without micros. In the spring, another round of fertilizer recommendations are made using the same soil sample results. After first cutting, more

6. Do I have BMPs that were completed but are not working the way they were designed?

To figure out why a BMP is failing, start with the Operation and Maintenance plan that is included in your Engineering documents. Once you are sure you are operating it the way the Engineer intended, invite them back to the farm to look at the practice and help you figure out how to make it work more effectively.

7. Do I operate fields situated over karst bedrock?

Karst regulations are a reality for Genesee County, NY farms but the karst formations do not stop at the county borders. Talk to your ACS Planner about karst on your farm and review the Genesee County regulations for a preview of what might be in store for other counties.

8. Do I really know where all of my neighbor's water wells are located?

No situation is more uncomfortable than to bow your head and tell one of your neighbors that you do not know if it is safe for their kids to drink the water from their well. Avoid being in this situation at all cost. Keeping your manure out of your neighbors wells starts by knowing where the wells are located and following the mandated manure spreading setbacks.

With low milk prices and busy fall days, it is easy to let your CAFO permit compliance slip from your focus. When money is tight, consider spending more time on upkeep of your existing systems and devoting more thought to a plan for how you will manage regulations in the future. Use the upcoming winter months to meet with your ACS Planner and re-center your focus on the management of regulations that impact your farm.

soil samples may be pulled on important alfalfa fields to determine additional potash needed for the rest of the season. Throughout the season, more soil sampling in problem areas, combined with tissue samples, provides important information when fields or sections are not performing adequately.

In the end, recommendations can only be as good as the soil sample. Proper soil sampling and sample handling is not just important; it is essential for any good crop fertility program. Ensure your soil sampling program is providing your farm crop team with a sound foundation.