

**Washington State Department of Ecology**

CAFO General Permit Public Comments

Attn: Chelsea Morris

I submit these comments via email as the portal did not work for me. After clicking "submit comments" the page would just show the circular processing icon indefinitely.

Please consider the following comments for review. I am available for a conversation anytime to discuss any of the below comments.

Section S4.J.2. "Samples must be collected and analyzed before land application begins." When double cropping is used, I think there needs to be clarification on the timing of application in regards to what crop and budget the application belongs to. For example, a fall soil sample is collected and a budget is made for fall triticale and summer silage corn. The recommendation provides for application to the triticale, but the grower cannot or does not want to apply all of the recommendation in the fall and leaves some for the spring. Once T-SUM 200 is achieved in the spring, the grower applies the balance of the recommendation to the triticale. It appears the language suggests that no application can be made in the spring until a sample has been taken, even though the grower has a valid recommendation based on data collected specifically for that crop. I would suggest making it more clear that under double cropping or perennial cropping that spring applications can be made if there is an outstanding balance that has yet to be applied.

S4.J.3. "Post-harvest soil samples must be taken by October 1st, after harvest of annual crops, and before heavy rains begins in the fall or before any irrigation water is used on the field after harvest." I am disappointed that this part of the permit was not adjusted to reflect the much drier conditions on the east side of the state. Based on considerable past weather data evaluation, which you have, it is clear that this statement is not valid in the drier areas of the state. There are not heavy rains in October, but there is potentially some level of irrigation if silage harvest is completed before the water is turned off, which is not always the case. On double cropped fields, I would estimate that 85% or more of the silage corn acres have not been harvested by October 1st. This has to do with the day length of the corn varieties used and our weather. We use longer day length varieties because we have suitable dry weather in the fall. Corn varieties are rated on a day length scale, which corresponds to a certain number of growing degree days to maturity. Typically the ratio is near 24 GDD per day length (see below)

80 day corn ~1950 GDD  
95 day corn ~2400 GDD  
110 day corn ~2650 GDD

In the Sunnyside area we typically grow 100 to 116 day length corn...the longer day length varieties tend to yield better.

According to AgWeatherNet for the Sunnyside area over the last 30 years we rarely will harvest corn before October 1 as following triticale we typically do not plant before May 15.

May 15 to Oct 1:

- only 4/30 years were there greater than 2650 GDD by Oct 1

- only 6/30 years were there greater than 2650 GDD by Oct 15
- only 6/30 years were there greater than 2650 GDD by Nov 1

By having an arbitrary early cut-off date for sampling in the drier regions, you are penalizing producers for no specific or defined reason at all. I would propose you move the date back to at least October 15th and would prefer November 1st. If this is not possible, then please consider changing the language to allow for crops that have yet to be harvested to be sampled after October 1st without penalty. I understand that on fields within the High to Very High adaptive categories that the 3rd foot sampling is somewhat justified and potentially useful, but in all other situations it seems punitive without justification.

S4.K.1.m. "Estimate of nitrogen and phosphorus from other sources (e.g. precipitation, irrigation, atmospheric deposition.)" I am not aware of tools or procedures available to growers to define levels of atmospheric deposition of N and P and therefore, I would propose striking "atmospheric deposition".

S4.K.3.c. "To fields with soils that are or will become saturated with forecasted precipitation prior to infiltration or incorporation." I do not like the "will become saturated" portion of this statement. How is a producer to know whether his soil in a particular field will become saturated based pm a forecast? Fields are different and on the east side enter into winter with varying amounts of moisture deficit. I would propose either going back to a defined precipitation amount or include "likely to become saturated" or something similar.

S4.K.3.f. "After October 1 and prior to T-SUM 200 unless applied in accordance with special condition S4.K.4." Having the combination of October 1 and T-SUM 200 will lengthen the time required to store manure well beyond what was required in their DNMP's, which is 120 days. This potentially longer storage requirement creates a much greater risk for the potential discharge of pollutants than applying in October or before T-SUM 200, especially if all other restrictions are followed (S4.K.3.a-e,g). As has already been presented, the weather supports being able to apply in October.

S4.M. "The Permittee must prevent the downward movement of nitrate by managing their irrigation water so that the amount applied from precipitation and irrigation does not exceed the water holding capacity of the soil beyond the crop rooting depth." I know this was in the previous permit as well, but it should be looked at as to how this is stated in that it presumes that all fields are monitored and checked in a manner where the producer would be able to actually make this evaluation, but this is far from reality. I would suggest changing the statement to "The permittee must reasonably prevent"..."and does not measurably exceed the water..." This should not be a definitive statement.

S4.O. "If the Permittee is exporting digestate, the nutrient analysis must be from within the last 5000 cubic yards (approximately 1,010,000 gallons) of digestate generated." This is too small of a volume requirement for larger dairies. I work for a dairy that effectively exported over 40,000,000 gallons last year and if this was to be followed, they would have had to take nearly 40 samples over the season. Most dairies are very consistent with how they generate, handle, and store manure and therefore, there are not any significant changes in manure from month to month. The only significant change is typically in the spring after long-term storage and winter precipitation influences. As a comparison, the permit requires the dairy to have a minimum of three samples over the season, which generally work just fine.

S5.C.2. Table 8. Parameter TKN. This added requirement is basically useless. I realize that it is used on other permitted industry where wastewater is generated and tracked, but in the soil it has limited usefulness. The TKN measurement includes ammonium and organic nitrogen. Ammonium is already required to be analyzed and the organic nitrogen level does not tell you anything about what N level will be available to a crop. Organic matter is already required to be tested once every 3rd year, and is used within the budget process as a component in determining agronomic rate. This is sufficient. I would propose at most to require organic matter every year as most producers already do this and omit TKN.

S7.C.4. "If the assessment identifies deficiencies" This requirement is somewhat vague and not well defined. The producer needs to be aware of what the criteria will be before assessment so that they have a target or level to achieve, especially if they want to avoid sampling compost areas.

S7.D. "The reporting period is the calendar year (January 1 to December 31)." I know this is what is also stated in the past permit, but this does not work for applications. Applications are made to crops that often overlap calendar years, therefore, I have always provided application data based on crop year and as much as possible calendar year for everything else. This is the only way to present applications if there is to be any sort of evaluation of recommendation as compared to applications

Thank you for the opportunity to participate in this process and all the hard work that you have put in to get to this point.

Respectfully,

Scott Stephen

A handwritten signature in blue ink that reads "Scott Stephen". The signature is written in a cursive style with a horizontal line underlining the name.

Scott Stephen  
Soil Scientist, CCA, NRCS-TSP  
Agrimanagement, Inc.  
[scott.stephen@agrimgt.com](mailto:scott.stephen@agrimgt.com)  
509-949-8843