Good nutrient balance quite valuable

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By Victor Cabrera: Ag Sense

A mass nutrient balance plan could be more effective than monitoring wells in dairy farms.

All New Mexico dairies are required to have a permit from New Mexico Environment Department, which among other things, requires dairy farms to install wells to monitor groundwater nutrient quality. These monitoring wells are unpopular among dairy producers because they are expensive, need maintenance, do not yield clear information, might contribute to groundwater contamination, and might not pinpoint the actual source of contamination, if any.

The dynamics of the aquifers including groundwater movement and volume is still a not well-understood science. It is highly difficult to ascertain nutrient water quality impacts from surface activities by sporadic (time and space) measurements. This fact, together with evidence that previous land uses might be influencing today’s measurements, makes this technique, in many cases, misleading and uncertain. In addition, there is a valid claim that the construction of monitoring wells opens a direct pipeline between the surface and groundwater, introducing a higher risk of direct contamination.

On the other hand, a mass balance of nutrients in a whole dairy farm system can be a more efficient and effective venue to assess a farm’s nutrient environmental status. A nutrient balance finds out the amount of nutrients remaining in the farm, if any, by subtracting the quantity of nutrients leaving the farm from the quantity of nutrients entering the farm. This balance is time sensitive and when performed with solid and validated data has no room for inconsistencies.

Dairy farmers have lab tests of their feeds and they weigh each ingredient in their herd’s diets, consequently, they know the quantity of nutrients in feed entering the system on a daily basis. They have daily milk tests and validated data has no room for inconsistencies.

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