



Senate Finance Committee

May 15 2018

Chairman Oelslager, Vice Chair Manning, Ranking Member Skindell and Members of the Ohio Senate Finance Committee.

RE: SB 299

I am Ronald Wyss. I am here today representing the Lake Erie Foundation. Our mission is to create and maintain a healthy Lake Erie now and forever as defined by drinkable water, recreational contact and edible fish. I want to thank you for your time and commitment to our great State. I served a term as Hardin County Commissioner and fully understand the sacrifices you make in public service. I also want to thank you for allowing me to speak to you representing the Lake Erie Foundation at this hearing. We are here as a proponent for the funding of SB 299.

I am a lifetime farmer with a diversified grain and vegetable operation. I was President of Wyss Inc. where we manufactured and distributed the Wyss Flex-a-tube air diffuser. We worked with cities, industries and engineering firms across the country improving the economics of wastewater treatment. I served on the Ohio Phosphorus Task force 1 and 2. I also served on the OEPA Technical Advisory Group on water quality.

We all want clean healthy water for our communities and our own families. It is a non-partisan issue. The question is, how do we accomplish that without causing extreme inconvenience for any particular business or entity? This Bill is an outstanding start, but we will need to do more in order to be successful. We also will need to provide farmers with resources to implement the practices that will reduce phosphorus runoff.

We have been working for over a year to craft solutions that accomplish that task. We have had meaningful conversations with many organizations including persons at Ohio State University, Ohio Department of Agriculture, Ohio Department of Natural Resources, Ohio EPA, USDA Agriculture Research Service at Beltsville MD, Ohio Farm Bureau, Ohio Dairy Association and multiple other commodity groups. We want to create win-win solutions by creating partnerships with all concerned. We have contacted US Senators and Representatives asking them to fund research and to support the agricultural community.



The recent OEPA mass balance report (*1) clearly indicates that agriculture runoff is by far the largest source of nutrient loading entering the western basin (80%+). We must find a working solution to support farmers as they transition to practices that will reduce runoff. The recent White Paper by nine respected Ohio scientists (*2) prioritizes several management practices that will have the most impact on reducing nutrient runoff. We agree with them. The top priorities are listed below:

1. Soil test all acres and apply nutrients at the agronomic rates as recommended by The Tri State Fertility Guide.
2. Place nutrients in the ground 4 to 6 “ deep so they will not be washed into streams.
3. Employ water management practices.

This Bill follows the recommendations of top Ohio scientists and is a great start towards helping farmers reduce phosphorus loading. With mandates on soil test levels it would be even better.

The first priority—Soil Tests and agronomic application rates.

The cost of soil testing has dropped drastically with technology innovation. With the recommended 3 year testing regimen, the cost is about one dollar per acre. Commercial fertilizer users purchase fertilizer and it will actually save them money to not apply fertilizer where they already have adequate Soil Test Phosphorus (STP) levels. The economic return is immediate. The Tri State Fertility Guide recommends no more applications of phosphorus when the soil test reaches 40 PPM. Current reporting from soil test companies indicate more than half of Ohio acres have adequate phosphorus levels now. Think of the money that farmers could save by testing at 2.5-acre grids and using variable rate application equipment. This is a win-win.

Soil tests are also inexpensive for livestock growers but they are in a different position. Historically, the recommendations for manure application were nitrogen based which allowed phosphorus applications three to five times the crop needs. This constant over application of phosphorus has led to fields with soil tests as high as 400 PPM and even over 1000 PPM. Those fields are currently described as **legacy fields**. The Grand Lake St Marys watershed is an example of this historical application regimen. The distressed watershed classification still allows continued application of manure until the soil test exceeds 150 PPM. There have been small reductions of loading at GLSM, but not enough to foresee the removal of the distress watershed anytime in the near future.



Current manure soil test recommendations currently allow applications to continue until Soil Test Phosphorus (STP) levels reach 150 PPM. Many in the industry call this the “**environmental**” level. Historical research and current edge of field studies confirm that phosphorus runoff increases with soil test levels. (*3) We do not believe there is anything environmental about a 150 PPM STP. The current Phosphorus Risk Index will allow applications to continue at 400 PPM. This is illogical.

We also believe that it should be mandatory for everyone to soil test before application of nutrients and that the soil test results should be automatically downloaded to a central database that is only available to Ohio Department of Agriculture and the Ohio EPA. This information would be privately held and not identify owners. It could be made available to researchers in order to develop logical recommendations for remediation and allocation of resources.

The second priority—placement of nutrients below the ground.

Research clearly demonstrates that placement of nutrients below the surface of the ground reduces runoff. (*2)

Phosphorus in commercial fertilizer is highly soluble. When it is spread on the surface of the ground with broadcast equipment it is highly susceptible to run off. Inserting it into the ground 4” to 6” deep greatly reduces runoff. The equipment to do this is expensive and is much slower than broadcasting fertilizer. Providing support to farmers and commercial fertilizer dealers through cost share or grant programs would be of significant value. These funds could also be used as matching funds for national USDA or GLRI programs.

Phosphorus in Manure is slightly less soluble than commercial fertilizer. Application of manure on the surface is also risky. That was clearly demonstrated by the fish kills last summer when manure was applied at recommended rates. Providing placement toolbars for manure is not a significant change from current total equipment required or speed of operation. Just use a different toolbar. They are expensive, but not very expensive when total costs are amortized over the life of the equipment. We support cost share programs to finance the adaptation of sub surface placement of manure. There are USDA programs that fund can be used as matching funds.

We request that all funds allocated by these programs require application of nutrients agronomic rates.



The Third Priority—Control Erosion

NRCS Programs are available to farmers now. Filter Strips grass waterways and blind inlets. Agencies are working to gain participation.

The Manure Conversion Moonshot Project.

This is an initiative of the Lake Erie Foundation. There are too many farms with more nutrients than they have acres that can utilize those nutrients. This surplus of nutrients is the direct result of too many animals in a geographic area. This results in the over application of manure and very high phosphorus runoff. It is not an Ohio problem. It is a nationwide problem with almost every State having at least one example of this situation. For Ohio the first example is Grand Lake Saint Marys. In fact, It is a worldwide problem. (*3) Other States that are more directly impacted by this situation are North Carolina, Pennsylvania, Maryland, Virginia, Florida, Arkansas, Iowa, Texas, Utah, and Washington.

We believe the solution to this problem is to cost effectively convert the high water content, low value manure to a high value dry product that can be transported to the fields that need the nutrients to reach there agronomic goals. Through our pursuit of this project we have found there is a significant amount of research and innovation occurring across the nation. Although significant effort is being expended across the nation, there is limited communication and even less sharing of information. We are working to get national support for this program. We envision a panel to work with participants in the US and around the world to develop technologies to cost effectively convert manure to products that can be distributed to fields that need additional nutrients. The goal is to reduce costs by innovation, technology; scale of manufacturing and using advanced manufacturing.

The new pork processing facility in Coldwater Michigan will require expansion of hog production. Ohio State experts have stated that there will be 100 new 2500 head production barns built each year for 5 years. That would add 750,000 hogs. There have been only about 300,000 hogs in the Maumee watershed for the last 20 years. This extra nutrient loading that will be applied at rates 3 to 5 times the agronomic rates needs to be acknowledged.



Again we offer our support of SB 299. We request that all participants that receive funds through this program comply with applying nutrients at the agronomic rates as recommended by the Tri State Fertility Guide.

Thank you for your time and attention. I am available for questions.

Ronald Wyss
Board Member, Agriculture Committee Chairman
Lake Erie Foundation

*1--Ohio EPA Mass Balance Report 2018

*2—Summary of Findings and Strategies to Move Toward a 40% Phosphorus Reduction—A White Paper

*3—Managing agricultural phosphorus for water quality protection: principles for progress