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Dear Chair Jones, Vice Chair Klopfenstein, and Ranking Member Brent,

Thank you for taking the time to read my testimony in support of House Bill 568. My name is Dr. Jim Ippolito, the Rattan Lal Endowed Professor of Soil Health and Soil Fertility within the School of Environment and Natural Resources at The Ohio State University. I have been with the university since July 2023. I hold degrees in Plant Sciences – Agronomy (BS; University of Delaware, 1989), Soil Fertility/Chemistry (MS; Colorado State University, 1992), and Environmental Soil Chemistry/Quality (Ph.D; Colorado State University, 2001). I have been involved with soil health since 1991, when many of us called this field of study “environmental soil quality” or simply “soil quality”. These terms have morphed into the currently accepted term “soil health”.

I have written over 180 peer-reviewed manuscripts, over 100 non-refereed articles, and have presented almost 400 times at local through international venues. Many of these works have had a soil health focus, either directly or indirectly. The work from myself and my team, as well as others in this space, tell us that the benefits of creating and maintaining healthy soils includes but are not limited to:

- increasing soil organic matter content which can lead to,
- increased water retention that can help crops weather droughty periods (e.g., like we experienced over the 2024 cropping season in Ohio),
- enhanced microbial activity that leads to
- greater nutrient cycling and turnover that feeds crops,
- increased soil nutrient retention, and
- reductions in erosional losses.

These positive attributes surrounding soil health can also lead to lower producer inputs while either maintaining or enhancing yields, and thus overall leading to increased producer profitability. House Bill 568 will promote what Ohio producers care about most: maintain their livelihood now and for generations to come.

Like many others, I also believe in supporting both Ohio and US producers in maintaining productivity while protecting against on-farm losses (either nutrient, monetary, or other). I currently work on a multitude of projects focused on productivity, protection against on-farm losses, and soil health, including:



- Soil health alterations across agricultural fields as a function of erosional losses;
- Water quality, soil health and regenerative agriculture: A nexus for sustainability;
- Soil health comparisons between agroecosystems and CRP: bridging the soil health gap
- Organic amendment effects on soil health in agroecosystems and grazing lands;
- Improving soil health in drastically disturbed lands;
- Soil health quantification under varying agroecosystem management practices (i.e., cropping intensity and various cropping rotations, no till, minimum till, etc.), grazing regimes, and naturally revegetated areas.

These above projects are aimed to quantify soil health and find what I call the “sweet spot”, where soil health (and profitability) is maximized and soil/nutrient losses are minimized across agricultural practices. Furthermore, these above projects are supported by grant dollars from entities such as the Conservation Partners Program, the USDA-NRCS, USDA-ARS, US-EPA, funds provided by The Ohio State University, and from western US locations where I used to work (i.e., Colorado Department of Agriculture; Colorado Department of Public Health and Environment; Colorado State University; a Congressional Earmark for Colorado State University). Funds for these projects total well over \$30 million USD.

More importantly, what House Bill 568 will create is a program similar to other successful Bills across the US. In particular, I was intimately involved in the passing of Colorado House Bill 21-1181 (https://leg.colorado.gov/sites/default/files/documents/2021A/bills/2021a_1181_enr.pdf). Ohio House Bill 568 is very similar to Colorado House Bill 21-1181, bringing together individuals to promote soil health, regenerative agriculture, conservation practices, etc., all in an effort to create sustainable agroecosystems and enhance on-farm productivity for generations-to-come of Ohioan producers. Specifically within Colorado, we created subsets of task forces to tackle numerous issues surrounding soil health within the state, including sub-task forces focused on science and practice, policy, connections between the state Department of Agriculture and Conservation Districts/personnel, etc. We performed all of these functions essentially from the ground up, involving numerous producers across the state who helped drive positive change with respect to soil health and sustainable agroecosystems. I worked tirelessly in this space from mid 2019 through when I came to OSU in July 2023; this work continues today, and is highly successful in saving tomorrow’s agricultural resources. The Colorado program currently has ~400 producers enrolled, along with ~ 35 research-focused fields. Thus, I bring first-hand knowledge to the state of Ohio with respect to how House Bill 568 can be highly successful for enhancing soil health while maintaining yields and supporting Ohio producers. I am willing to work alongside others to ensure Ohio’s agroecosystems maintain high functionality for generations to come.



I encourage you to support HB 568. This bill will bring together not only Ohio producers and other stakeholders to identify needs, challenges and opportunities, but will help join forces with others states (e.g., like Colorado who has been through this process) to provide guidance and support to Ohio producers moving forward.

If you have any questions, please feel free to contact me using the letterhead information above.

Sincerely,

Dr. Jim Ippolito

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