



Maryland Food System Resiliency Council

Environment & Production Subcommittee
June 9, 2022 1:00pm-2:00pm

1. Welcome

2. Group Discussion

- Invited Speakers:
 - Alisha Mulkey (Program Planning and Evaluation Executive Secretary, State Soil Conservation Committee Maryland Department of Agriculture)
 - Cleo Braver (Board Member and Representative for Pesticide Education Network)
 - A. The report under discussion: [Maryland Healthy Soils Report](#)
 - B. What are some considerations to examine while thinking about healthy soils to healthy foods?
 - 1) From a department standpoint healthy soils was the focus of the legislation, and food resiliency is not mentioned. However the healthy soils initiative framework builds in resilience farm systems, biological activity, carbon sequestration, and how we consider healthy soils as part of the state's overall climate change strategy.
 - 2) The department investigated how producers determine operational decisions, specifically in land management and conservation that can be employed regardless of the crop being grown.
 - 3) One goal of the healthy soils program is to be available to all producers in the State, including recommendation development programmatically and administrative changes to expand the program



- breath and funding in the coming fiscal year, so all producers can consider how soil health is a part of their land management techniques specific to their operations.
- 4) Another goal is to ensure programs are available to all types of producers, undertaking program development tailored specifically for producers who were not able to participate in other programs.
 - 5) The committee examined a number of practices that expand beyond cover crops and no till practice (i.e. pastured animal production) but further examination is needed for soil health benefits with organic production (healthy soil = healthy plants = healthy people)
 - 6) Objective measurement is needed - MDA has committed to begin examining outcome based measurement (i.e. carbon), but for the council's interest, nutrient density could be a measurable outcome. This was a robust conversation undertaken with the advisory committee, with interest noted for the department and at the state, but there was no scientific consensus on the metrics. This is an opportunity for academia to develop standards.
- C. Was there anything specifically geared towards small farmers?
- 1) There is nothing specifically mentioned in the recommendations for small scale farmers, however programs (for example) the Healthy soils competitive fund does not indicate a participant acreage requirement.
- D. Nutrient management plans utilization: currently nutrients are put on the soil based on their nutrient plan, which is agnostic in the plan of the type of nutrient (i.e. chemical fertilizer, compost, manure, food waste). The state soil chemist examines the nutrient amendment for



nitrogen and phosphorus: What are the benefits of bio-based nutrients amendments? Was this topic discussed?

- 1) Elimination of synthetics was not discussed in general, but the committee demurred from organic because of a perceived concern with availability of organic inputs. Currently organic inputs are available but are expensive, which is why there is a need to incentivize.
 - 2) Another consideration is not being involved in production methodologies since the goal is to measure outcomes.
 - 3) Farms subject to a nutrient management plan are not prescribed synthetic or organic material for nutrient application, but the following items must be documented (1) what is the crop, (2) what is the anticipated yield, (3) how that crop's nutrients meets the nitrogen needs (requires a manure or chemical analysis). Annual implementation report requirements must be met (details what nutrients were used, at what amount, and what source).
 - 4) Additionally when the healthy soil committee examined the idea of more organic materials (compost, manure, food waste, etc) access and equipment were discussed. How can equipment be made available?
- E. Tom Croghan's letter to the Post about the Committee's work:
<https://www.washingtonpost.com/opinions/2022/04/15/maryland-opts-business-usual-not-helping-fight-climate-change/> 40% of eligible land use cover crops, most land is leased in Maryland, How do we engage the land owner in this conversation?
- 1) Tenant farmers who lease land usually have the right to make production decisions, per Maryland Department of Ag and FSA regulations. FSA requires the land owner to sign a limited power of



- attorney to allow tenant farmers the ability to make applications for FSA programs. For example, in the Maryland Department of Ag conservation cost-share assistance program, farmers must get permission from the land owner to commit (the farmer incurs 100% of the upfront cost and is also the recipient).
- 2) There is a direct connection between soil health, plant health, and human health, the key of the interconnectivity is increasing the amount of organic matter in the soil, using opportunities to reduce food waste by recycling food scraps and fostering more relationships to promote soil health. Studies suggest organic matter is related to soil health (University of Maryland completed a study that indicated about 61-64% of organic matter is carbon).
- F. The purpose of this council is food resiliency, this council was implemented during the COVID-19 pandemic. Regenerative Ag and soil health is an important factor because of supply chain disruption with fertilizer input, and exports are becoming expensive, lowering the ability to purchase because currency is devalued. This idea leads back to local and regional supply chains, strengthening one supply chain so there is parity with the other. Regenerative Ag will need to be part of this as it will be economically beneficial. We need to bring the supply chain closer (looking at our processing capacity in Maryland).
- G. Nutrient focus (meaning to keep nutrients on the farm, and not in the Chesapeake Bay) led to the development of many best practices. The specific nutrients we should focus on are nutrients that promote soil health, and biodiversity which benefits the system's ability to hold on to nutrients while improving the health of the soil and the food that is produced (this intersects with the soil health advisory committee and food system resiliency).



- H. Another area of concern relates to an increase in fossil fuels cost (both for fertilizer and diesel) for farms and distribution facilities. Examination of the overall system to gradually decrease the need of these inputs, is a needed first step to improve system resiliency. Another system is Agroforestry, this system creates a complimentary system that can better maintain its own health, and overtime decrease the need for external inputs.
- I. Overall there is support for regenerative Ag, but the science behind the outcomes (i.e. crop production, economic value, etc.) is still coming. Regenerative Ag is a rapidly changing landscape. How do we incentivize regenerative practices or facilitate market stability to help farmers start the process?
- J. Website shared: <https://www.masonsheritage.com/> example given when considering the input cost of organic grain production

3. Next steps and adjourn

- Please begin drafting recommendations for the 2022 Nov 1st report
- Next E&P Subcommittee Meeting - continued discussion with Ed Huling on regenerative ag and economics