Science Societies

Societies weigh in on climate change

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While global agriculture accounts for nearly a quarter of greenhouse gas emissions worldwide, when sustainable agricultural practices are put into action, farmed soils have the potential to be a significant carbon sink. Photo courtesy of NRCS Oregon.

While climate change is not a new issue, when Democrats took control of the U.S. House of Representatives after the 2018 mid-term election, they sent the clear message that climate change was going to be a priority. Just days into the 116th Congress, the U.S. House Select Committee on the Climate Crisis was formed and charged with delivering climate policy recommendations to Congress.

A select committee is established for a limited period to perform a special purpose. Select committees are usually investigative in nature rather than legislative. The Climate Crisis Committee was given the authority to investigate, study, make findings, and develop recommendations on policies, strategies, and innovations to achieve reductions in pollution and other activities that contribute to the climate crisis.

Early on, the Committee held hearings on several climate change-related topics including manufacturing, infrastructure, agriculture, and emissions. Then in September, the Committee released a “request for information”, or RFI, soliciting input from stakeholders on a broad range of issues related to climate change and potential policy solutions. The Committee will use the input from the RFI to develop policy recommendations that are expected to be submitted to relevant House committees in March of 2020.

The ASA, CSSA, and SSSA Science Policy Office selected three questions from the RFI where the expertise of our members would be of greatest value.

We asked all Society members to weigh in with their suggestions and feedback. We also sought input specifically from the Society divisions, sections, and communities that have a climate focus. We received dozens of comments from Society members that were formulated into the Societies' response to the Select Committee.

Members Point to Soils, Sustainable Practices, and Research Investment

It will come as no surprise that the role of soil in addressing climate change was raised by many members. While global agriculture accounts for nearly a quarter of greenhouse gas emissions worldwide, when sustainable agricultural practices are put into action, farmed soils have the potential to be a significant carbon sink.

Principles such as low or no tillage, cover crops, land applications of manure or biosolids, and precision agriculture could produce the double effect of pulling carbon out of the atmosphere and building healthier soils. Soils with increased organic matter also retain more moisture, which can lead to less irrigation and provide greater resiliency against droughts and floods.

The comments also addressed the challenges that limit wider adoption of sustainable practices. Incentive structures are needed that offset short-term financial risks and encourage adoption of sustainable practices that build soil in the long term. Adjusting the guidelines for the Conservation Reserve Program will ensure that farmers have the proper incentives to move underproductive land into conservation.

Finally, the Societies stressed the need for continued investment in research that could help improve climate resiliency. Research into soil ecosystems, irrigation strategies, diverse cropping systems, biofuel production, and nitrogen management were identified as key areas that could help producers better prepare for and manage the realities of farming in the face climate change. In addition to these specific research topics, the comments emphasized the need for continued research and extension support that will not only generate new information, but also get that information into the hands of the producers who need it.

ASA, CSSA, and SSSA members know that agriculture can and should play an important role in addressing climate change and that there are actions that could be put into

practice *right now* that could make an impact. While climate change certainly won't be solved by one Congressional Committee, with your engagement and expertise, ASA, CSSA, and SSSA will continue to be a voice for our sciences in addressing these pressing challenges. The full Society comments can be viewed here: **https://bit.ly/2E7hmWb**.

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