



GLOBAL
RESEARCH
ALLIANCE

ON AGRICULTURAL GREENHOUSE GASES

CROPLAND RESEARCH GROUP (CRG): United States Update - 2023

CRG – Co-Leader: Hero T. Gollany
US Department of Agriculture
Agricultural Research Service

GRA-CRG Meeting
On-Demand Recording
January 2023




Hero Gollany

❖ ***Direct contribution to GRA-CRG***

1. *Research Group Co-Chair: Online workshop under the German G7 presidency.*
 - *A GRA-CRG Seminar.*
 - *Contributed to two CRG newsletters.*
 - *Prepared reports.*
 - *A new initiative on Soil Carbon Sequestration as a Co-editor of a Special Issue of Frontiers in Soil Science.*
2. *Network Participation (GHG meta-analysis)*
3. *Network Participation in the Special Issue of Conservation Ag.*



❖ **Direct contribution to GRA-CRG (cont.)**

4. *MAGGnet database*: 381 experiments from 23 countries. Dr. Liebig is seeking resources for an online platform to  serve as a repository for meta-data uploads and downloads.
5. *Cropland Literature Database* (KSU): funded by the Institute of Museum and Library Services (IMLS) for 2022-2025.  

❖ **Indirect contribution to GRA-CRG**

1. *USDA – NAL*: houses a collection of resources & databases such as AGROCCROSS, a network of ARS databases networks.

USA Update

Activities/Accomplishment since 2022 meeting

❖ *Indirect contribution to GRA-CRG (cont.)*

2. *USDA - NIFA, Funding for climate Research*

1. CAP and CAFF (Climate-smart Agriculture for Future Farms) grants for universities.
2. NIFA- Provided a series of “global meet” webcasts including (Climate Change 101) and many others on YouTube.

3. *USDA - NRCS, Climate Hubs*

1. Financial assistance to 155,000 producers, managers, and forest landowners. These services resulted in 41,647 contracts in AMA, CSP, and EQIP.



USA Update

Activities/Accomplishment since 2022 meeting

3. *USDA - NRCS, Climate Hubs (cont.)*

2. NRCS provided ~\$1M for 6 Climate Hub-sponsored collaborative projects supporting the development and dissemination of climate-change related data and information. These new projects are in addition to ~ \$2M of ongoing projects.
3. Developed and delivered 4 regional climate townhalls meeting to support the provision of science-based information to agency cooperators. (> 577 attendees).



USA Update

Activities/Accomplishment since 2022 meeting

4. USDA-Agriculture Innovation Mission for Climate ([AIM for Climate](https://www.aimforclimate.org/)).

AIM for Climate focuses on increasing and accelerating investment in climate-smart agricultural innovation with emphasis on methane reduction, emerging technologies, and agroecological research.

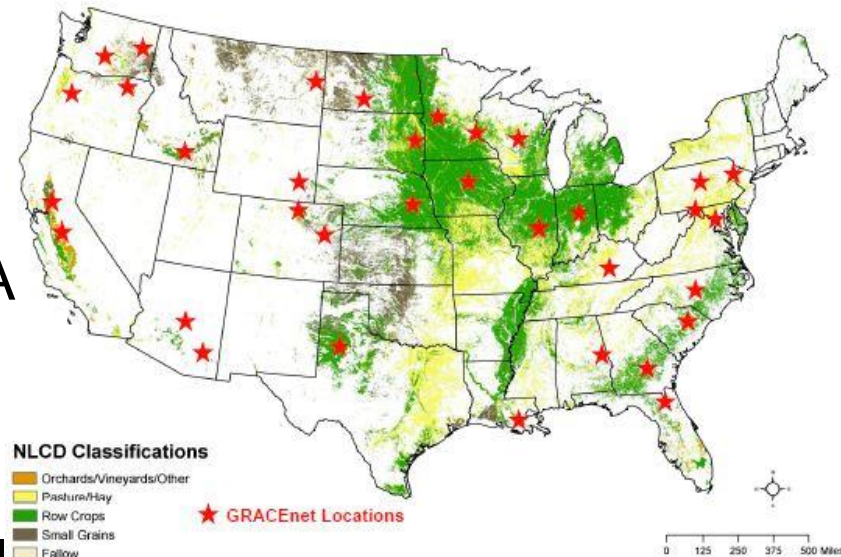
May 8-10, 2023, Summit in Washington, D.C. Supported by the Foundation for Food and Agriculture Research (FFAR).



<https://www.aimforclimate.org/innovation-sprints/>.

Examples of how cropping system carbon neutrality is being advanced

- Research is conducted at the USDA-ARS GRACEnet (Greenhouse gas Reduction through Agricultural Carbon Enhancement network) and LTAR sites to reduce the C footprint. A barrier to C neutrality under the dryland production system is water availability.
- USDA-NRCS obligated \$501M on all climate mitigation practices, including cover crops (EQIP: \$309M; CSP: \$192M) to increase SOC.
- Growing interest in private corporations (companies, agricultural associations) regarding neutral carbon agricultural production systems and MRV.



Research and Capability Opportunities

- *Research opportunities related to cropping system carbon neutrality for the CRG and Networks, possible funding*
 1. Priority topic 1: Landscape management of nutrients to reach cropping system C neutrality under dryland cropping system.
 2. Priority topic 2: Intercropping or cover cropping legumes to reduce N fertilizer and herbicide use.
- **Capability Opportunities:**
 1. CLIFF-GRADS.
 2. Borlaug Fellows (USDA - FAS).



GLOBAL RESEARCH ALLIANCE

ON AGRICULTURAL GREENHOUSE GASES

CROPLANDS RESEARCH GROUP:

USA Update - 2023

Thanks for your attention



United States Department of Agriculture
Agricultural Research Service

hero.gollany@usda.gov