Climate Change and Agricultural Science Education in the Inland Pacific Northwest

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REACCH Education Initiatives Overview

The Regional Approaches to Climate Change-Pacific Northwest Agriculture (REACCH) project brings together scientists from four institutions (UI, WSU , OSU and USDA-ARS) to develop more sustainable wheat-production systems given current projections of climate change. One of the goals of REACCH is to develop a network to improve agricultural and climate change education across the Inland Pacific Northwest. This goal is in response to the recognized need for improved agricultural and climate change literacy among future agricultural professionals and the general population.

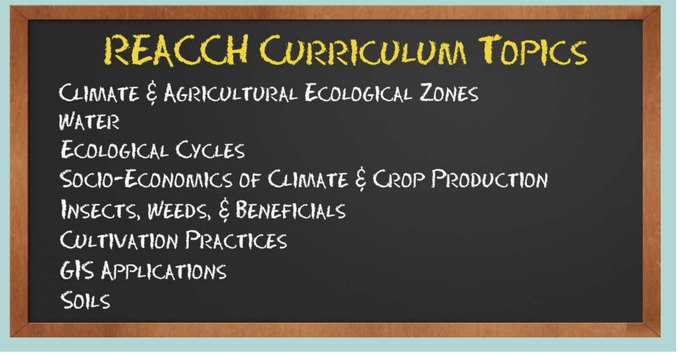
K-12

The K-12 component of this project includes hands-on teacher workshops and the development and distribution of a year-long curriculum. Additional activities include classroom visits and the development of agriculture/climate change workshops for other summer programs.

A total of 64 teachers have attended REACCH summer workshops (above) where they participated in both laboratory and field activities. Teachers help pilot and revise curriculum. Classroom visits (below) by REACCH faculty and staff have increased student exposure to the basics of agriculture and climate change.

Curriculum

Modeled after REACCH research, the high school curriculum is designed to provide science-based information on agriculture and climate science. The curriculum is hands-on, placed based and integrative. K-6 lesson plans are being developed through a partnership with another USDA-funded project and the McCall Outdoor Science School (MOSS).



Undergraduate

Undergraduate students are trained through a summer research internship program. Students are recruited from across the country and spend nine weeks conducting research at one of the three academic institutions. Over 40 students have been served through this program which provides training in field and laboratory research, preparing for graduate school, working with stakeholders and cross-disciplinary, distance communication.

Graduate

While the REACCH project originally provided funding for 14 graduate students, the program quickly grew into a network of 44, plus 9 post-doctoral researchers. Students work as part of objective teams to accomplish project goals. Graduate students are exposed to tools for engaging in interdisciplinary research and are required to integrate their research data into either extension or education-based products. Students from different institutions interact at annual meetings and graduate student retreats and present their research through an online seminar series open to all project participants. REACCH faculty-developed workshops for graduate students have included topics such as, regional agricultural history, how to find and apply for jobs and foundational GIS skills.

Summary of Accomplishments

- Over 60 teachers given new information, classroom materials and activities and tools to better teach climate change and agriculture topics
- A new semester-long, integrative, curriculum on REACCH topics available online for current and future teachers
- Over 40 undergraduate students trained in research laboratories
- 44 graduate students trained in cutting-edge, interdisciplinary research and communication

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