It's ClimeTime! Regenerative Agriculture Western Washington Workshop Grows PEI's Impact!

ClimeTime is a partnership between the Office of Superintendent of Public Instruction (OSPI), the Association of Educational Service Districts (AESD) and community-based organizations with the goal of bringing climate science to the classroom. Pacific Education Institute's project, *Solutions Oriented Learning Storylines (SOLS)*, is designed to strengthen teachers' equitable climate science instruction through locally relevant storylines. The SOLS are made available on Open Educational Resources (OER) Commons and PEI provides professional learning to teachers to support their implementation.

Kale with cover crop

PEI currently offers professional learning on eight SOLS, many of which are translated into Spanish, so that teachers statewide can bring climate science into the classroom with confidence and creativity. Each SOLS is centered on Indigenous wisdom, aligned to NGSS standards, includes connections to Project Drawdown, and contains lesson plans complete with materials lists, pre-and post-assessments, related media, and science investigations.

The newest SOLS, written by local teachers and PEI staff over the last year, focuses on regenerative agriculture in Western Washington. Regenerative Agriculture, also called Conservation Agriculture, includes all farming practices that minimize soil disturbance, maintain soil coverage year-round, and manage crop rotation. While PEI already had a Regenerative Agriculture for Eastern Washington, Western Washington's farming context was different enough to warrant a new SOLS. Farms in Western Washington tend to be smaller, with more diverse crops, and their rotational grazers are more likely to be chickens than beef cattle. In addition, Western Washington's growing seasons are longer and wetter than those in Eastern Washington.

Farmers in Pierce County

To help teachers and their students understand this important climate change solution, PEI developed the Regenerative Agriculture Western Washington SOLS, as well as an accompanying virtual field trip which features three Pierce County farms and the research farm of the Washington State University Extension Service in Puyallup. During this 11-minute film, teachers hear from farmers about regenerative agriculture practices, research being done to further these practices, and the importance of farming and agricultural research careers. The farmers shared how they used cover crops, chickens, compost, and even a few Highland cows to keep their soils healthy. The farmers also explained how soil sampling, nutrient management and crop rotation can contribute to soil and crop health and limit the spread of plant diseases. Rawley Johnson, farmer at Early Bird Farm, has been quite encouraged by these practices saying, "I feel like what we're doing is working!"

Rawley Johnson, Early Bird Farm

Tara Clark, Mother Earth Farm

Another important feature of the film is introducing teachers and students to farm careers. Farmers interviewed represent owners, managers, and soil science researchers. Mother Earth Farm manager, Tara Clark, shares that she left a career in the film business in Los Angeles, to come home and work the land on behalf of her community. The future of farming, she says, "requires all kinds of minds."

The writing of the SOLS and the filming of the virtual field trip would not have been possible without generous funding from the Puyallup Watershed Initiative, as well as the partnership of the Pierce Conservation District (PCD). East Sound South FieldSTEM Coordinator, Cindy Haverkamp, was assisted in filming, photography, and film editing by Chris Towe, PCD environmental educator, as well as PCD AmeriCorps members Connor Runyan and Leika Patch. Also providing guidance and education at each farm were PCD farm planners, Alison Nichols, and Nicole Warren.

Chris Towe, Pierce Conservation District

PEI FieldSTEM Coordinators, Cindy Haverkamp and Tressa Arbow, led 12 teachers from three school districts through the professional learning in December, which included two 2-hour Zoom sessions and one 2-hour asynchronous session. During the second virtual session, the farmers featured in the virtual field trip spoke more about the value of regenerative practices, and Chris Towe spoke about how this information might be implemented in the K-12 classroom. Six STEM clock hours were provided for completion of this work.

Teachers were inspired and encouraged by this new SOLS and accompanying virtual field trip! One teacher said, “PEI units are so useful, timely, and connected to the real world.” Others shared that they are excited to integrate this unit with their work on food waste and school garden programs. This is one climate solution that is sure to “grow” in impact as we share it with more and more teachers!