

1994 Land-Grant Tribal Colleges & Universities RESEARCH

Background

Tribal Colleges and Universities' (TCU) Land-grant research programs seek to understand and solve problems facing Tribal communities in areas such as nutrition, health, the environment, economic and community development, and youth development. Research that specifically addresses Tribal issues provides the best science-based foundation for uplifting Tribal communities, while also providing models for successfully working with other institutions and researchers throughout the U.S. Ultimately, TCU research informs best practices that protect the environment, create jobs, and increase economic prosperity in Tribal communities and within Tribal Nations.

Protecting the Environment

Fond du Lac Tribal and Community College's (Minnesota) Environmental Institute provides research that helps Tribal leaders address the potential impact of mercury on both the Fond Du Lac Reservation and in the St. Louis River watershed in upper Minnesota. The St. Louis River watershed is a large and diverse ecosystem with mining impacts near its headwaters & reservoirs that flow into Lake Superior. Their land-grant research investigates the microbial connection to mercury in the sediments of six tributaries to the St. Louis River. Working with their Land-grant partner, University of Minnesota students are trained in state-of-the-art genetic sequencing, field sampling, data analysis, and dissemination. Research findings will inform Tribal and state leaders on how to protect this vital waterway.



Increasing Economic Prosperity

Dine College (Arizona-New Mexico) is working with New Mexico State University to increase agricultural productivity and economic profitability and strengthen the Navajo Nation's food and fiber systems. This research project enables Dine College students to enhance field research skills, conduct livestock market research, and develop small business models. Meat and wool quality of Navajo sheep herds were evaluated, and the data showed opportunities for improvement. As a result of the research, producers improved the quality of wool within their herds and the average carcass weight increased by 50 percent. Navajo producers increased profits, supported local jobs, and strengthened local food systems.

Strengthening Food Sovereignty

College of the Muscogee Nation (Oklahoma) is researching the potential for reintroducing and growing two traditional Mvskoke foods back into the Tribe's diet. *Orko* is the Mvskoke word for the pawpaw tree and *Cvse* is the Mvskoke word for pumpkin. Since the tribe's beginning, pawpaws have been a staple in Native American diets, including for the Mvskoke. The tree produces a large yellow-green to brown sweet fruit that tastes like custard of banana, mango, and pineapple. In addition, the fiber of the tree was used to weave ropes and nets. *Este Cate Cvse* or Indian Pumpkin is also an important traditional food for the Mvskoke. CMN is identifying the best techniques for growing pawpaw and pumpkin at scale, researching the dietary and nutritional significance of each plant, and developing traditional food recipes that are nutritious and appealing. The reintroduction of traditional foods will help lower the incidence of diet-related diseases, thereby reducing societal health care costs and increasing economic productivity.



The Tribal College Research Grant Program

The Tribal College Research Grant Program helps TCU Land-grant institutions (1994 institutions) become centers of scientific inquiry and learning for remote and rural reservation communities. Funding from USDA's National Institute of Food and Agriculture allows them to address the questions that matter to these communities, such as protecting reservation forests and monitoring water quality. Projects may help a tribe improve bison herd productivity, discover whether traditional plants can play a role in managing diabetes, or control invasive species. Grants support partnerships that ensures that other federal and Land-grant research entities can share resources and knowledge with the 1994 institutions. In addition, grants places an emphasis on training students in science.

For more information on TCU Land-grant research, contact John Phillips, jphillips@aihec.org.

