

THE OGALLALA WATER COORDINATED AGRICULTURAL PROJECT: OPTIMIZING WATER USE FOR AGRICULTURE AND RURAL COMMUNITIES

Meagan Schipanski

Assistant Professor
Colorado State University
Fort Collins, CO
Meagan.Schipanski@colostate.edu

Jonathan Aguilar

Assistant Professor
Kansas State University
Garden City, KS

Allan Andales

Associate Professor
Colorado State University
Fort Collins, CO

Jose Chavez

Associate Professor
Colorado State University
Fort Collins, CO

Isaya Kisekka

Assistant Professor
Kansas State University
Garden City, KS

Danny Rogers

Professor
Kansas State University
Manhattan, KS

Daran Rudnick

Assistant Professor
University of Nebraska-Lincoln
North Platte, NE

Joel Schneekloth

Water Resources Specialist
Colorado State University
Akron, CO

Tim Shaver

Associate Professor
University of Nebraska-Lincoln
North Platte, NE

Jason Warren

Associate Professor
Oklahoma State University
Stillwater, OK

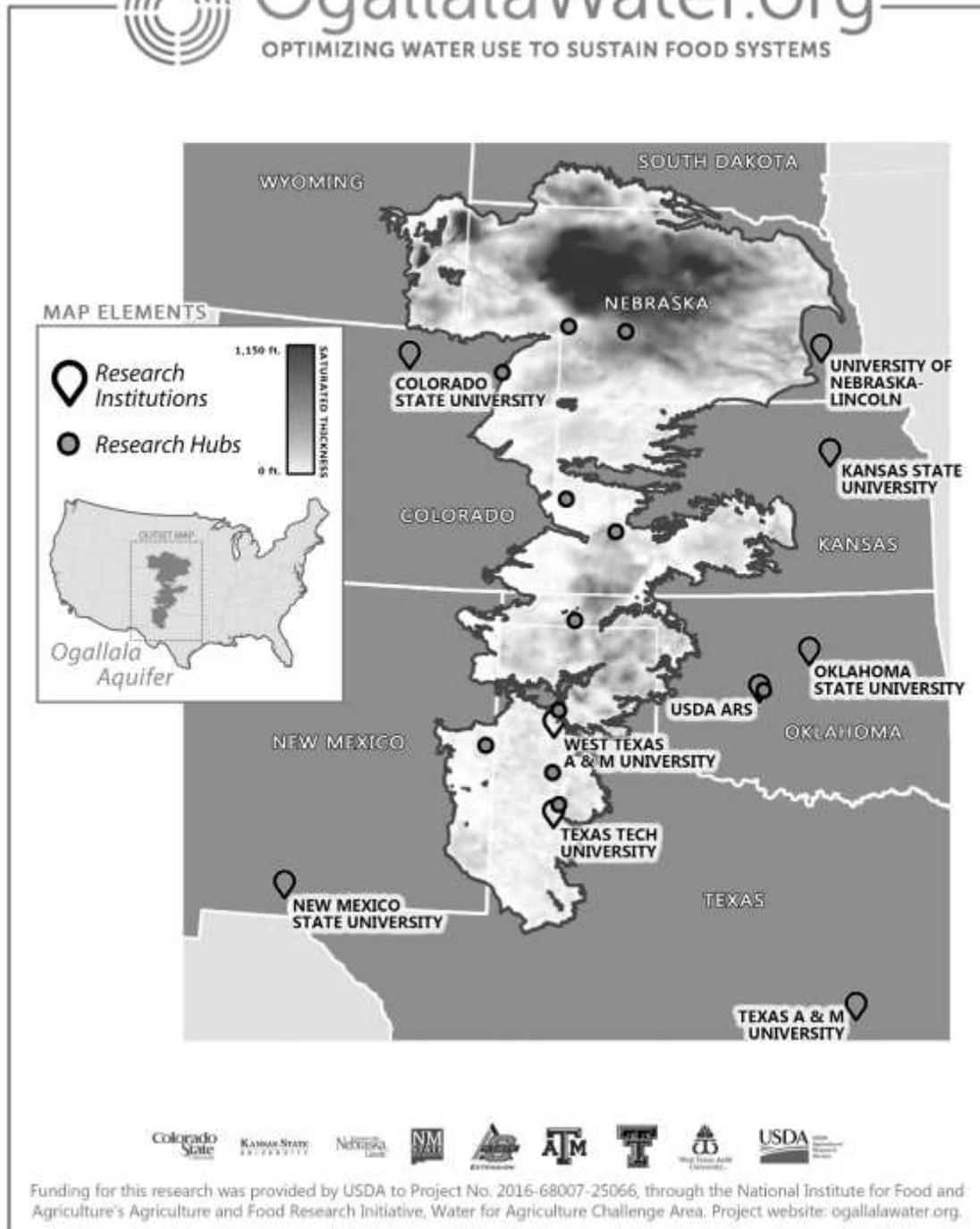
The Ogallala Aquifer underlies eight states and supports about 30% of U.S. agricultural crop and livestock production. The quantity of available groundwater and groundwater level changes over the past 50 years are relatively well understood. Recharge rates vary across the Ogallala Aquifer Region (OAR) where sustainable use is an option in northern regions and water quality can be a greater concern than water quantity. In contrast, declining groundwater levels are inevitable in parts of the central and southern OAR where recharge rates do not match the water demands of agricultural crops. This regional variation requires different management strategies and each state differs in groundwater management approaches. Difficult questions are facing producers and rural communities across the OAR—what are the most promising crop and water management options on the horizon? what is the value of groundwater today or in the future? what are potential strategies to transition to reduced groundwater dependence in regions facing declining capacity?

The Ogallala Water Coordinated Agricultural Project (CAP) is a 4-year USDA-NIFA funded effort to link research and outreach efforts across the OAR to address these difficult questions. The project started in 2016 and includes more than 40 scientists from 9 institutions and 6 states across the OAR. We are collaborating with research, producer, and industry groups to develop and identify cutting edge crop, soil, and water management approaches, technologies, and tools. Field research efforts are based at 6 hub sites on the aquifer and focus on irrigation technologies, limited irrigation strategies, and soil and dryland management systems. We are also linking modeling efforts to evaluate the economic and water use impacts of management and policy options for local groundwater management groups to help OAR communities plan for the future.



OgallalaWater.org

OPTIMIZING WATER USE TO SUSTAIN FOOD SYSTEMS



The locations of Ogallala Water CAP participating institutions and research hubs across the variability in aquifer saturated thickness.