

Join MO DIRT!



Educating citizens on soil health and the reciprocal soil-climate interactions across the state.



2015
International
Year of Soils

Visit MO DIRT at
modirt.missouriepscor.org
to find out about our programs,
training sessions, data entry,
and events!



MISSOURI
EPSCOR



DONALD DANFORTH
PLANT SCIENCE CENTER
DISCOVERY | COMMUNITY | IMPACT

Science Education and Outreach
Donald Danforth Plant Science Center
975 N Warson Rd.
St. Louis, MO 63132
Phone: 314-587-1436
Fax: 314-587-1536
E-mail: MODIRT@danforthcenter.org



Missourians
Doing Impact
Research Together

Educating citizens on
soil health and the reciprocal
soil-climate interactions
across the state



MISSOURI TRANSECT

modirt.missouriepscor.org

MO DIRT Missourians Doing Impact Research Together

MO DIRT Missourians Doing Impact

Research Together, is a new state-wide program of the Missouri Transect, aimed at educating citizens on soil health and working with them to assess a distinct set of soil properties and how these properties are influenced by microclimate and climate in the state.



The Missouri Transect project was established through a \$20 million National Science Foundation EPSCoR grant in 2014 (www.epscormissouri.org; award IIA-1355406). This project aims to study and predict the impact of climate change on agricultural productivity and natural habitats in Missouri, and how communities are likely to be affected by and respond to the challenges of a changing climate. The lead institution of this project is the University of Missouri-Columbia with the following partners: Donald Danforth Plant Science Center, Saint Louis Science Center, Saint Louis University, Lincoln University, Washington University, the University of Missouri at Kansas City and St. Louis, and the University of Missouri Science and Technology.

SPECIFIC GOALS

- To educate citizens on soil science, soil-climate interactions and the soil-plant interface
- To create public awareness of soil threats and conservation actions
- To train citizens on data collection, analysis, and reporting of soil properties
- To conduct soil surveys with particular emphasis on soil respiration and soil carbon
- To maintain a web-based portal for MO DIRT participants
- To contribute valuable data to scientists involved in Missouri Transect research.

Soil Science Curriculum

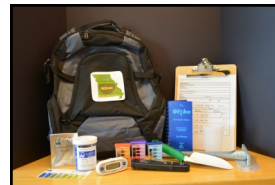
A new school curriculum includes hands-on activities for K-12 students on soil properties, soil organisms, soil health, and soil-climate interactions. Teachers receive training and a manual with background information, protocols, worksheets and other resources. This



program offers weekly activities for the whole academic year including hard to obtain materials.

Citizen Science Soil Health Surveys

High school students, landowners, farmers, science clubs, life-long learners, and all citizens committed to research are invited to conduct soil surveys to collect and contribute data that will help scientists understand how soil health and soil-climate interactions are affected in the state.



High School Scientists

High school students specifically are invited to conduct independent research projects related to soil-climate interactions with the guidance of mentors.



Enrichment activities

Soil science activities are offered at agricultural educational field days, Earth Day events, summer camps, schools, etc. These activities are designed to promote the “living soil”, the “breathing soil”, MO DIRT, World Soil Day, and International Year of Soils.



Web-based portal

A Web-Based Portal is available to access educational and training materials, to post experiences with MO DIRT and to enter educational and research data.

