



# NATIONAL DROUGHT MITIGATION CENTER

The National Drought Mitigation Center, based in the School of Natural Resources at the University of Nebraska-Lincoln, was established in 1995 to help reduce vulnerability to drought. The Center works with states and tribal governments across the United States and with national governments around the world to develop better drought risk management strategies related to monitoring, early warning, and planning. The NDMC also maintains an extensive website with resources for monitoring, assessing impacts, planning, and K-12 education. <http://drought.unl.edu>

## Monitoring

The National Drought Mitigation Center is home to the U.S. Drought Monitor, a weekly map that shows where and how badly drought is affecting the country. The U.S. Drought Monitor is produced in partnership with the U.S. Department of Agriculture, the National Oceanic and Atmospheric Administration, and about 350 expert observers around the country. U.S. Drought Monitor authors synthesize data from many different indicators as well as condition reports from around the country each week to produce the map. Since it was first launched in 1999, the U.S. Drought Monitor has become the main focal point for discussions of drought in the media and in policy making circles. Drought relief for agricultural producers is now based in part on what the U.S. Drought Monitor says, and some states use it to trigger responses to drought. Many other countries have expressed interest in developing a state-of-the-art system similar to the U.S. Drought Monitor, and the Center advises them not to overlook the critical role of the community of drought observers who provide data, impacts and commentary to the authors each week.

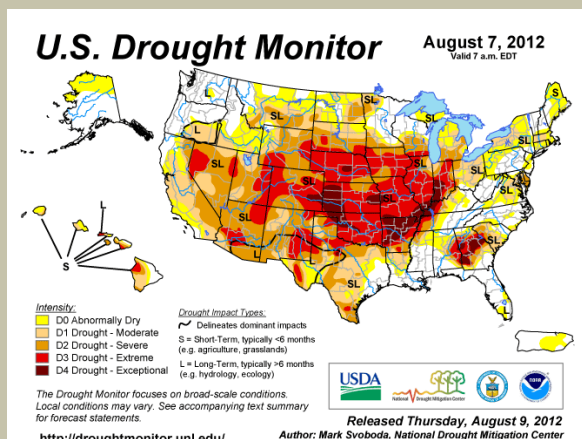
*U.S. Drought Monitor:* <http://droughtmonitor.unl.edu>

The NDMC has also developed the Vegetation Drought Response Index (VegDRI), which incorporates remote sensing, climatic, and biophysical data into a map showing drought's effects on vegetation.

*VegDRI:* <http://vegdri.unl.edu>

The Daily Gridded Standardized Precipitation Index, developed by the NDMC and the High Plains Regional Climate Center, is calculated at the station level and updated daily.

*Daily Gridded SPI:* [http://www.hprcc.unl.edu/maps/current/index.php?action=update\\_product&product=SPIData](http://www.hprcc.unl.edu/maps/current/index.php?action=update_product&product=SPIData)



## Impacts

The NDMC launched the Drought Impact Reporter in 2005 as the nation's first comprehensive archive of drought impacts. The web-based tool maps impacts culled from media reports, government agencies, and volunteer observers. In addition to agricultural impacts, the Drought Impact Reporter tracks impacts on energy, tourism and other business, health, the environment, water supply and quality, and fire, and also tracks policy responses, from local burn bans and water restrictions to widespread governmental drought disaster declarations. A recent partnership with the CoCoRaHS volunteer precipitation observing network has yielded an influx of ground-level impact reports. *Drought Impact Reporter: <http://droughtreporter.unl.edu>*



*Trees are turning brown on hillsides in Madison County, Missouri. Farmers are hauling water to livestock because ponds and creeks have dried up. Corn is being chopped for silage or baled for hay. At least 50 percent of producers have been feeding hay since July 1. Submitted to the Drought Impact Reporter, July 2012.*

## Planning

The Center has published drought planning guides for different groups, including state and national governments, ranchers, and communities. Researchers from the center have consulted all over the world on drought planning. They advocate a risk management approach – knowing how drought affects each major sector, identifying particularly vulnerable sectors or groups, and determining how to reduce impacts. Another key component is establishing monitoring and reporting, so that decision-makers will have as much early warning as possible when drought emerges.

*Managing Drought Risk on the Ranch: <http://drought.unl.edu/ranchplan>*

*Drought Ready Communities: <http://www.drought.unl.edu/Planning/PlanningProcesses/DroughtReadyCommunities.aspx>*

*Drought Planning Resources by State: <http://www.drought.unl.edu/Planning/PlanningInfoByState.aspx>*



*Climate Masters participants learn about farming operations at a tour of Robinette Farms.*

## Education

In addition to a “Drought for Kids” section on the website, the NDMC has over the years increased the number of drought-related activities that it offers to groups. Favorites include “Water Banking” and “Meteoropoly,” games that the Center devised, as well as activities involving tree rings, sponges, and water. They can be calibrated for age and circumstance (such as whether or not it's OK to make a little splash). The Center is also a partner in a community education program for adults, Climate Masters, which teaches people simple ways to reduce their carbon emissions.

## Staff

Donald A. Wilhite founded the NDMC in 1995 and led it until 2007, when he became director of the University of Nebraska–Lincoln's School of Natural Resources. Michael J. Hayes, a climatologist who has been with the NDMC from the beginning, has been the director since 2007. Since then, the Center's research activities have been organized into three Program Areas: a Monitoring Program Area led by Mark Svoboda, a Planning and Social Science Program Area led by Cody Knutson, and a GIScience Program Area led by Brian Wardlow, who has recently moved to a position within the School of Natural Resources. The expertise of the 16 faculty and staff members at the NDMC includes climatology, geography, geological engineering, anthropology, rural sociology, human dimensions, history, community and regional planning, community development, environmental education, journalism, GIS and remote sensing, and information technology.

