

Discovery Farms Research Site Data and Conditions Available Online!

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The Discovery Farms partnership with the United States Geological Survey (USGS) allows research to be performed with many advances in technology. One benefit of this technology is the centralized, web-enabled database in which all of the data are stored.

Data acquired from the research stations are relayed via a combination of spread-spectrum radios and telephone or cellular modems to USGS computers where the data are stored in the National Water Information System (NWIS) database. This database has the ability to automatically display information on a web site. In general, the data on the web is updated twice per day. The “real-time” data can be viewed up to 31 days before the present date and can be presented in either graphical or tabular form in multiple formats. Selected daily values can also be viewed for the entire period of record at a site. The following link can be used to access most of the Discovery Farms research sites: <http://waterdata.usgs.gov/wi/nwis/current?type=flow>

Here is an example of 31 days of discharge for one of our research sites:

The available parameters viewable for stream, waterway, and tile sites are commonly:

Gage height (depth of water in the water control device)

Discharge (volume of water flowing through the water control device)

Water temperature

Other parameters that may be viewable include:

Soil moisture content at 10, 20, 30, and 50 centimeter depths.

Soil temperature at 2, 5, 10, 20, 40, and 80 centimeter depths.

Holding the shift key down while clicking multiple available parameters allows the user to compare multiple graphs for a given time period simultaneously. The list of available parameters at each site may vary depending upon the equipment installed.

From the USGS website previously annotated, Discovery Farm weather station data installed at research sites may also be accessed. Near the top, left portion of the page, you will see a pull-down menu labeled “Predefined displays.” Select either *Wisconsin Precipitation Table* or *Wisconsin Other Parameter Table* then click the “go” button to obtain weather station data from available locations.

The available parameters viewable for weather stations are commonly:

Precipitation

Air temperature

Relative humidity

Average, minimum, and maximum wind speed

Wind direction

Solar radiation.

Soil moisture content at 10, 20, 30, and 50 centimeter depths.

Soil temperature at 2, 5, 10, 20, 40, and 80 centimeter depths.

Again, the list of available parameters at each site may vary depending upon the equipment installed.

For ease of access to Discovery Farms specific data, the Discovery Farms website will have a page to direct link research sites to their USGS parameters. This information can be found at:

<http://www.discoveryfarms.org/corefarms/datasites.htm>

An important note must be made that data obtained from these sites is only provisional because it has not been checked for accuracy, as it is published to the web by an automated program. The following USGS Provisional Data Disclaimer should be read before accessing this data.

Provisional Data Disclaimer:

Recent data provided by the USGS in Wisconsin ~ including stream discharge, water levels, precipitation, and components from water-quality monitors~are preliminary and have not received final approval.

Most data relayed by satellite or other telemetry have received little or no review. Inaccuracies in the data may be present because of instrument malfunctions or physical changes at the measurement site. Subsequent review may result in significant revisions to the data.

Data users are cautioned to consider carefully the provisional nature of the information before using it for decisions that concern personal or public safety or the conduct of business that involves substantial monetary or operational consequences.

Information concerning the accuracy and appropriate uses of these data or concerning other hydrologic data may be obtained from the station manager, whose name is shown on the single station data summary pages, or from the USGS surface-water specialist in Wisconsin care of the webmaster email alias Wisconsin NWISWeb Maintainer.