About the Midwestern Climate Information System

The Midwestern Climate Center disseminates climate information through the Midwestern Climate Information System (MICIS). This interactive, computer-based, dial-up data source provides economically and environmentally important climate information in a timely, easy-to-access manner.

MICIS provides access to real-time climate information focused specifically on the needs of a nine-state midwestern region. By combining current data collected systematically throughout the region with a variety of historical databases and research models of important physical processes, MICIS produces innovative information products. This information is presented in the form of maps, tables, and text. The number of products, their specificity to the Midwest, and their flexibility make MICIS a unique source of climate information.

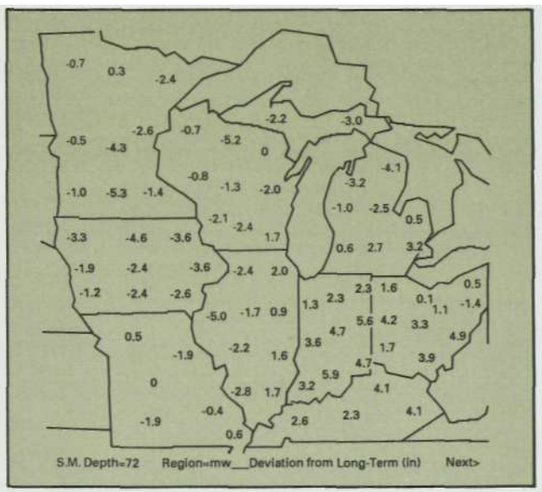
Regional coverage. Information and data are available primarily for the states of Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, Missouri, Ohio, and Wisconsin. Some products provide information for specific locations, while others cover sub-state areas, full states, or the entire nine-state region. Limited information is also available for North and South Dakota, Nebraska, Kansas, New York, Pennsylvania, Vermont, and southern Canada.

Timely climate data. Data from dozens of climate reporting stations in each state are transmitted to MICIS daily. Therefore data from significant events occurring "yesterday" are incorporated into all MICIS information products "today," resulting in rapid estimates of the impacts of climate events.

Special climate products. In addition to general-use, weather-related products, MICIS delivers specialty products designed for the needs of agriculture, including soil moisture estimates and risk assessments of potential corn and soybean yields. These products are developed by combining the MICIS climate database with models developed elsewhere. The crop yield assessments, for instance, are based on weather-driven crop development models.

Extensive on-line "historical" databases. Daily climate data are available at more than 1,500 weather reporting stations in the nine-state MICIS region; for many stations, data are available as far back as 1948 or earlier. Data from 300 to 400 of these stations are entered into the MICIS database daily. Reports from the remaining stations are included in the MICIS database monthly.

Modem and electronic mail access. MICIS is designed to be accessed by telephone using a personal computer, a modem, and a communications package. Users can also access the system through national communications networks such as BITnet and NSFnet.



MICIS map showing soil moisture at a depth of 6 feet throughout the nine-state midwestern region

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Midwestern Climate Information System

For more information about the Midwestern Climate Information System, write or telephone:

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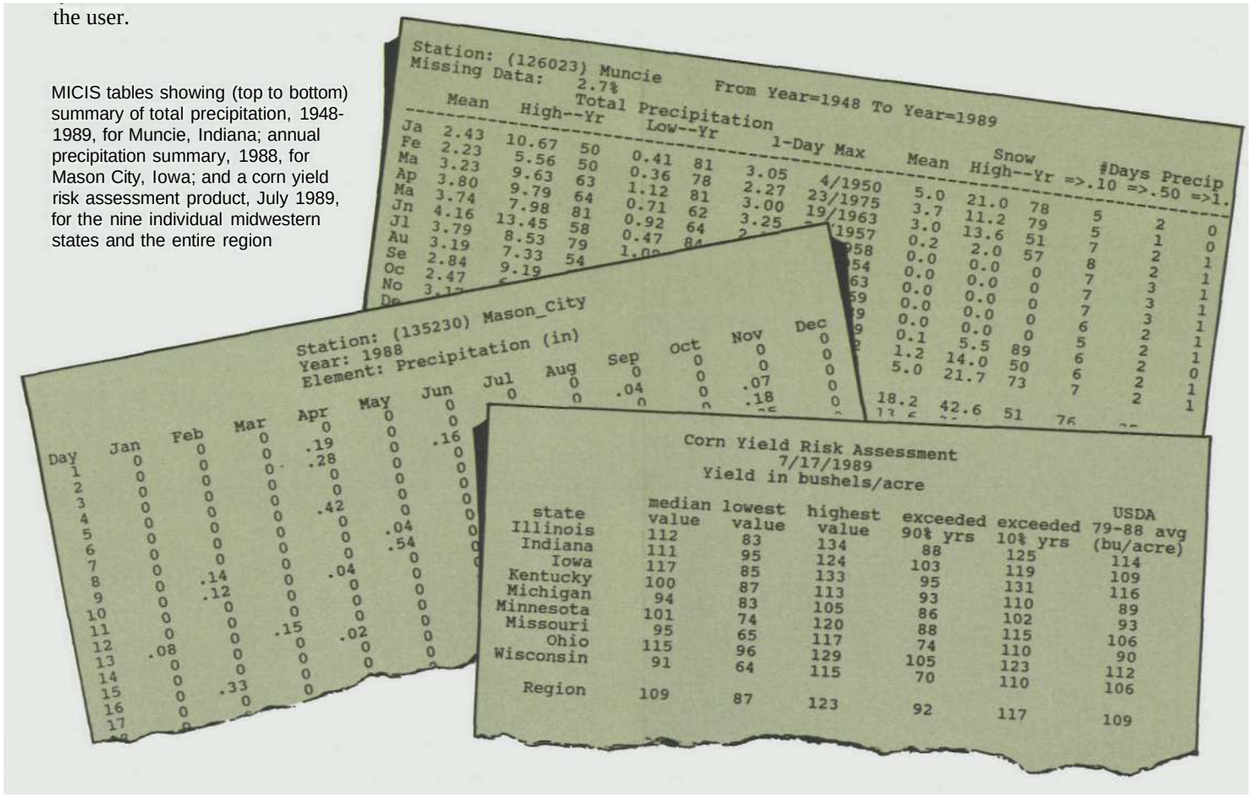
1990

Illinois State Water Survey
Miscellaneous Publication 119

About M I C I S Products

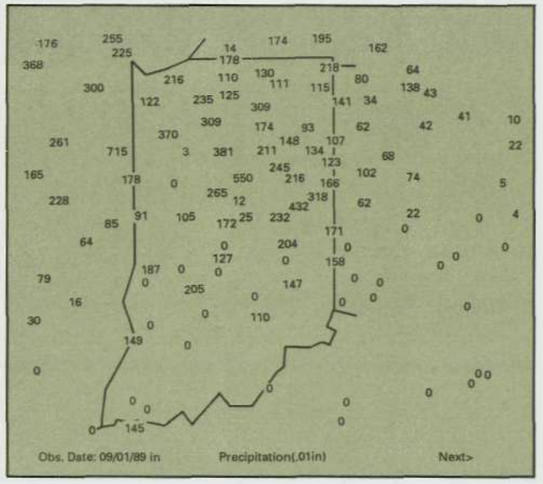
Information products are designed to serve the specific needs of MICIS users, and approximately 100 different products are now available. New products are developed and added to the system on a continuing basis.

Maps and tables for current and historical climate data. Daily maximum and minimum temperatures, precipitation, and snowfall data are available for a large number of stations. In addition, wind, humidity, air pressure, and cloud-cover data are available for a smaller number of stations. MICIS can also provide other climate variables derived from these primary variables, such as degree-days, potential evapotranspiration, and solar radiation. Daily data can be combined for weekly or monthly periods or for any other time intervals selected by the user.



MICIS tables showing (top to bottom) summary of total precipitation, 1948-1989, for Muncie, Indiana; annual precipitation summary, 1988, for Mason City, Iowa; and a corn yield risk assessment product, July 1989, for the nine individual midwestern states and the entire region

Crop yield scenarios. The CERES-Maize and SOYGRO crop development models are used to produce risk assessments of corn and soybean yields. These products incorporate weather data for the present growing season up to the current day and use data from the historical record to produce a large number of different potential outcomes for the weather during the remainder of the growing season. This allows the model to produce a realistic range of yield outcomes. These model results are updated weekly during the growing season and provide an objective assessment of potential yield outcome, both before and after the first U.S. Department of Agriculture estimates in mid-August,



MICIS map showing precipitation for the state of Indiana on September 1, 1989

Climate summaries for individual towns and cities. These include summaries of precipitation averages and probabilities, temperature averages and probabilities, length of the growing season, and degree-days.

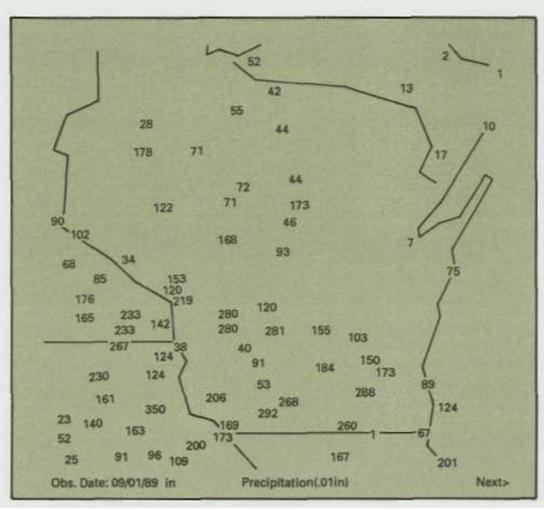
Climate atlas. Maps of long-term average climate statistics are available, such as maps showing the average date of the first fall freeze for states or areas. Several hundred useful climate statistics are available in the atlas.

Soil moisture products. Current climate data are combined with a model of the soil-water balance to produce estimates of current soil moisture conditions in the agriculturally important top 6 feet of the land surface.

Summaries of current drought conditions. These products include the latest values and historical values of the Palmer Drought Index and Crop Moisture Index.

Water resources data. Present river levels and flows, reservoir levels, and lake levels are available.

Long-range forecasts. As a service to its subscribers, MICIS provides the latest National Weather Service long-range forecasts for the following periods: 3 to 5 days ahead, 6 to 10 days ahead, and 30 and 90 days ahead.



MICIS map showing precipitation for the state of Wisconsin on September 1, 1989

Subscriptions

MICIS is a subscription-based service available to individuals, businesses, and public and private organizations and agencies. Several user options are available. Subscription rates and options are outlined separately