

MU Weather Stations Provide Real-Time Data Across The State

MONROE CITY, MO.

Monroe City boasts the newest of the state's automated real-time weather stations operated by University of Missouri Extension's Commercial Agriculture Program, said Pat Guinan, MU Extension assistant professor of climatology.

Located at the Capt. Ben Smith Airfield on the south edge of city limits, the weather station records variables including temperature, relative humidity, wind speed, wind direction, solar radiation, soil temperature and precipitation. There are 30 automated weather stations in the network. The Monroe City station is one of 19 stations in the network that provide real-time data.

The weather stations record information important to the agriculture community and collect historical weather information for the National Weather Service and others, providing data for numerous meteorological, agricultural and hydrological research projects.

One of the most-used agricultural applications is for making spraying decisions based on real-time wind speed and wind direction information. Other agricultural applications of Missouri's network include farm chemical application recommendations, irrigation sched-

ules, planting and insect advisories. Advances in wireless communication and acquisition of grant funds have provided the opportunity to report weather conditions every five minutes over the Internet.

The Missouri network, which is a type of weather network that meteorologists call a "mesonet," was established in 1992 with four automated weather stations. Three were in northwestern Missouri and one in the south-central part of the state. By 2000, the mesonet had expanded to 21 stations. They are comprised of hardware and sensors including 3-meter towers and dataloggers. Some stations have supplemental sensors to observe fuel moisture (an indicator of wildfire risk), soil moisture, leaf wetness and barometric pressure.

For more information from the Missouri Climate Center through the MU College of Agriculture, Food and Natural Resources, go to www.climate.missouri.edu.

Data from each of the weather stations is available online at www.agebb.missouri.edu/weather/stations.

For real-time weather from the Monroe City station, go to www.agebb.missouri.edu/weather/realtime/monroe.asp. △



Monroe City has the newest real-time weather station in Missouri. University of Missouri Extension's Commercial Agriculture Program operates 30 stations across the state, including 19 that provide real-time weather data.

Photo credit: University of Missouri Extension



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