

A History of Climatology at Purdue University

By Ken Scheeringa
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The roots of the climatology program at Purdue run very deep. In 1884 Henry Huston, Indiana State Chemist and Agricultural Experiment Station (AES) staff member, organized the Indiana Weather Service, one of only three such state programs in existence at the time. He directed the service for several years and is regarded as the “father” of Indiana’s cooperative observer network.

In 1896 Huston enlisted the help of the new Indiana Section of the USDA Climate and Crop Service of the Weather Bureau to publish the observers’ data in a monthly bulletin. The Weather Bureau integrated the Indiana Weather Service into the federal program and soon, similar weather networks were established in other states.

Huston was an observer, setting up the Purdue weather station on the south grounds of the AES building. He was observer even after being named Director of AES and served until he left Purdue in 1903. The next two Indiana State Chemists, William Jones (1903-1917), and E. Proulx (1917-1925), also were station observers. After that, AES Farm Director Harry Reed then took data until 1939, followed by Thomas Hall (1939) and George Lehman (1939-1953) of the Ag Chemistry Department.

In 1949 new Agronomy professor, Jim Newman, required weather data for his corn hybrid testing program. The station thermometers had been relocated to the AES building’s roof in 1916 but the rain gauge remained at ground level. Newman expressed dismay that the thermometers were unrepresentative of ground conditions and unsuitable for field comparisons. In 1953 he recommended relocating the weather station to the Purdue Agronomy Farm. The AES Director turned over the weather station to Newman, who relocated the station east of the Agronomy Farm buildings.

In 1973 a supplementary automated version of the station was designed at Purdue for this location and was possibly the first microprocessor-based weather station in the world at the time. The weather station remained there until 1987 when it was moved to its current location away from the building area. Weather observers at the Agronomy Farm have included Jimmy Martin (1953-1978), Lamar Biggs (1979-1987), Jeff Fields (1987-1999), and Steve Zachariah (1999-present).

In 1953 the Weather Bureau announced a new federally funded state climatologist program. Through his work on the AES NC-26 technical committee, Newman was able to gain approval for a new state climatologist position in the Purdue Agronomy Department. Larry Schaal, the first Indiana State Climatologist, arrived in January 1956. Analysis of climate data for publication, response to data requests, and a greatly expanded *Indiana Weekly Weather and Crop Bulletin* were important accomplishments of the new state climate program. That work included placing all past Indiana climate records on more than 2 million IBM punch cards.

In 1958 Newman began teaching courses in agricultural meteorology and climatology, completing the triangle of teaching, research, and extension in the climatology program. That same year Congress authorized a new agricultural weather service. After testing the concept in a few southern states, Congress expanded the new service to Indiana. In 1966 Walt Stirm began the service as the new agricultural advisory meteorologist for Indiana in cooperation with two agricultural weather forecasters at the Indianapolis Weather Bureau. The premier product of the new service was twice daily agricultural weather advisories released to news media and the public based on weather data collected from a statewide agricultural weather station subnetwork.

At Purdue more positions followed. In 1967 Newman worked on a university committee to secure four meteorology teaching positions in the Department of Geosciences, along with two new climatology positions in Agronomy. Bob Dale arrived in Agronomy in 1967 to teach statistical climatology while micrometeorologist Roger Shaw came in 1972. Paw U [\[\[Is this name correct?\]\]](#) replaced Shaw in 1980.

In the 1970s Congress merged the state advisory services into regional centers, and in 1977 Agronomy began hosting the federal Midwestern Agricultural Weather Service Center (MAWSC) to serve Indiana, Michigan, Illinois, Kentucky, Ohio, and the Missouri boot heel. Original staff members were Walt Stirm, Warren Bruns, Albert Peterlin, and Jim McIntyre. Others who served later included John Kotke, Jim Daniels, Jeff Andresen, Jeff Logan, and John Wright. In 1995 MAWSC was terminated at Purdue when the National Weather Service closed the centers to fund other projects.

Federal support of the state climatologist program was terminated in 1973. The Indiana position was continued half time by Purdue. Larry Schaal continued until Newman was appointed to the Purdue position in 1978.

Newman was state climatologist for ten years, retiring in 1988. Ken Scheeringa was then appointed by Agronomy as Acting State Climatologist, continuing in this role for 17 years. Scheeringa had joined Agronomy in 1974 as research agronomist under Dale. In 1977 Scheeringa became meteorology assistant to Newman and the MAWSC staff, and later worked for Rich Grant in the Applied Meteorology Group in the 1980s and 1990s.

Dev Niyogi was appointed Indiana State Climatologist when he joined the Agronomy Department in 2005. Today, climatology is enjoying a resurgence at Purdue as Niyogi has implemented a vigorous land surface processes research and climatology services program.

Sources:

Professor Jim Newman

Annual Report of the Purdue Agricultural Experiment Station (1890-1939)

Purdue *Debris* (1891-1900)

Faculty and Staff Roster (1970-1982)

WSSRD – online cooperative station histories

The History of Indiana Agriculture Weather Program

An expanded online version of this history is planned at <http://www.iclimate.org>