PURDUE UNIVERSITY | Indiana State Climate Office

PURDUE MESONET

Host a Station

The **Purdue Mesonet**, managed by the Indiana State Climate Office, is a statewide network of weather stations that monitors Indiana weather and delivers climate data, tools, data visualizations, and resources to enhance Indiana's prosperity and decision-support needs.



The Purdue Mesonet aims to have a station in every Indiana county. In addition to securing funding to expand and sustain the network and data services, we are always seeking site hosts for stations.

Weather Station Includes

- Air temperature sensors (4 heights)
- Humidity sensor
- Rain gauge
- Pyranometer (sunlight)
- Anemometer (wind speed and direction)
- Soil moisture and temperature (4 depths)
- Datalogger
- Solar panels
- Battery
- Cellular modem
- 33 foot (10 meter) tower

Site Requirements

- Located on relatively flat, open terrain (~1 acre) representative of the surrounding area
- Free of obstructions (e.g., bushes, fences, tree rows, or structures) within a distance of at least 10× their height in all directions
- No pavement, crops, or tree lines within 100 ft (30 m); ideally in natural vegetation or grass.
- Soil should be typical of the area and historically undisturbed
- Not situated in a topographic low or high point that may bias temperature or wind
- Not near irrigation systems, ponds, or lakes that could affect humidity or soil moisture
- Accessible year-round by vehicle

Installation Costs

- Weather Station ~$40,000
- Security Fencing ~$5,000
- Personnel ~$30,000

Network Sustainability

- Program support: $11,400 per station per year to sustain the stations and services of the network
  - Staff
    - Field technicians
    - Database/online tools programmers
    - Program manager
  - Services
    - Regular station maintenance and calibrations for accurate data
    - Quick Troubleshooting
    - Data quality control and assurance
    - Public access to data via website
    - Maintenance and creation of value-added online products and tools

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