

## **Citizen Science Opportunities using Personal Weather Stations**

Having access to current weather information has never been easier. There are over 2,000 weather information “apps” available for my Android phone! But, the data the “app” uses is only applicable if there is a weather station or observer at the location you need data for! Volunteer monitoring efforts provide essential data for NWS and NOAA, and also other outlets such as The Weather Channel, Weather Bug and Weather Underground. But, the value is much broader as this data is used to monitor the potential for pests and diseases in crops, water quality and water use, and the effects of the changing climate. For this presentation, I will cover the various ways your audience can participate in weather data collection. From simple manual precipitation gauges to more sophisticated instrumented weather stations, they can join the network of 1000s of other enthusiastic citizen science participants and contribute to data collection. Participants may become a member of the volunteer monitoring efforts of CoCoRaHS, the Community Collaborative Rain, Hail and Snow Network, founded by the Colorado Climate Center at Colorado State University. I’ll also describe the Citizens Weather Observation Program (CWOP), and the technology needed to contribute to this project. Finally, I’ll wrap up with a summary of the different equipment available for those who want to have their own personal weather station to learn about meteorological science.

### **Steve Marquie**

For over 25 years, Steve has worked for Michigan State University BioSystems & Ag Engineering Department. Additionally, he was the Field Operations Manager for Enviroweather Program, the state Mesonet weather station network at MSU. Throughout his career, he enjoyed working with a broad range of technology and explore uses through new applications. As of 2022, Steve retired from MSU and started ClimaTEQ, to assist others with environmental monitoring needs. He is an amateur radio operator and lover of music, and a good beer.