Research Weather Network

USDA-ARS Application Technology Research Unit
OARDC, Wooster, OH

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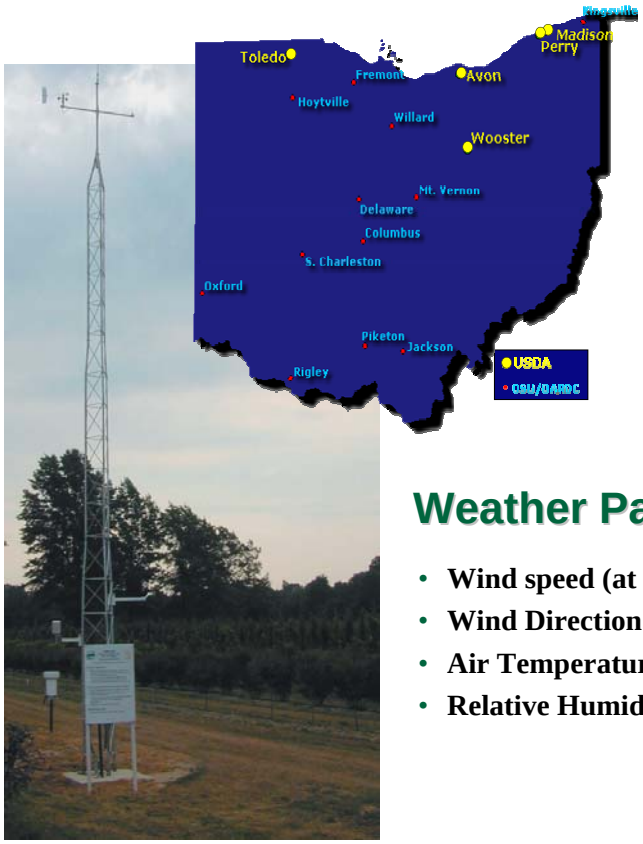


Weather is among the key factors in managing nursery field operations. In recognition of this, and as part of cooperative field research programs, the Application Technology Research Unit of USDA/Agricultural Research Service (ARS), in cooperation with local production nurseries and Ohio State University's (OSU) Ohio Agricultural Research Development Center (OARDC), has developed a research weather network to monitor local weather events that directly impact issues related to the nursery industry.

Weather Parameters

- Wind speed (at 33 feet)
- Wind Direction (at 33 feet)
- Air Temperature
- Relative Humidity
- Precipitation (Rain and Snowfall)
- Solar Radiation
- Atmospheric Pressure
- Soil Temperature (2, 4, and 8 inch depths)

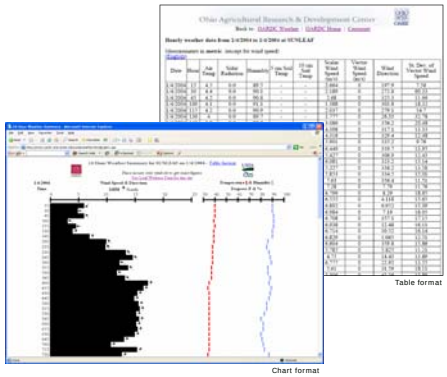
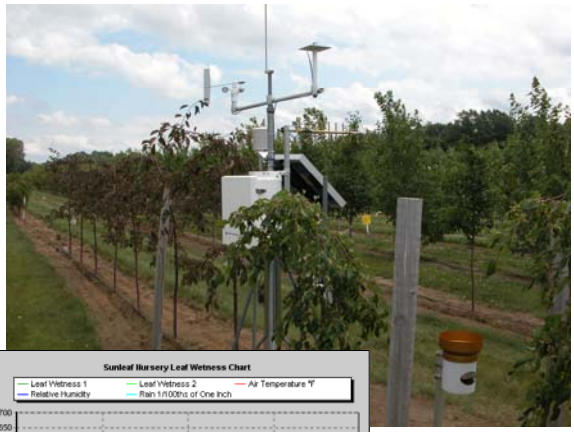


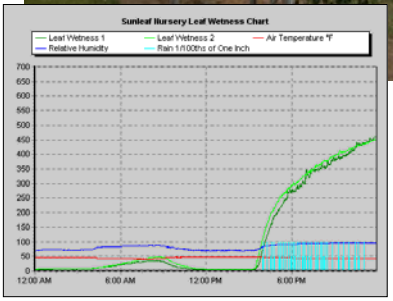
Table format

Chart format

Online Data Access

Measurements are accessible as 15 minute average values updated every 3 hours to an online website at
http://www.oardc.ohio-state.edu/usdaweather/





Applications

- Determine susceptibility to the infection and spread of disease in nursery crops.
- Studies on soil insects, spray efficacy on nursery crop diseases, nursery crop phenology, and plant conditioning.
- Archival records of conditions during completed spraying or other operations.
- Records of weather conditions during past growing seasons.
- Water management and irrigation scheduling.
- Forecasting insect or disease onset, dormancy entry or emergence based on degree-day calculations and research data.
- Pest management applications based on weather-triggered alerts.