



## Weather data when and where you want it

By Jack Payne, jackpayne@ufl.edu, @JackPayneIFAS

wenty years ago, the Florida Automated Weather Network (FAWN) launched on the premise that weather information from the airport isn't good enough for the grove or any other area where livelihoods depend on dew points and wind speed.

## INFORMATION IN THE GROVE

University of Florida Institute of Food and Agricultural Sciences (UF/ IFAS) Extension has long recognized that perhaps no one relies on this information more than citrus growers do. So UF/IFAS Extension brought



weather stations closer to the grove. Today, Extension has 42 weather stations on public lands in rural areas to take the temperature of your region.

In the past five years, Extension has installed 200 weather stations on private farms, ranches and groves. Sites include Florida Citrus Company, Hancock Citrus, Southern Gardens and the groves of Bobby Barben and Marty McKenna.

That means we can give you readings on rainfall in your neighborhood.

We don't do this alone. In addition to station hosts such as Consolidated Citrus and Deseret Cattle and Citrus, the Florida Department of Agriculture and Consumer Services and the state's water management districts partner with us. The Farm Bureau has been a valued past financial supporter and continues to testify to FAWN's importance when it's time to renew state funding.

## **MAKING THE MOST OF DATA**

We're looking ahead to the prospect of delivering data so local that you can consider your farm its own microclimate. UF/IFAS forecasts that someday your smartphone will essentially give you a weather map of the row you're working in.

The technological challenge is how to harness the growing mountain of data. FAWN measures dozens of weather indicators every 15 minutes 24/7. We'll need to combine the right pieces of that data with information from other sources such as the National Weather Service to make FAWN even more useful.

Fortunately, that's just what UF/ IFAS research and Extension do. We deliver discovery to you in usable form. Kati Migliaccio, the new chair of the UF/IFAS Department of Agricultural and Biological Engineering, uses FAWN data to drive the phone apps she developed to help producers of avocados, citrus, cotton, strawberries and turf decide when and how much to irrigate.

Before a forecasted freeze, citrus agent Chris Oswalt makes the rounds collecting leaves from groves and feeding the info into FAWN to help growers make freeze-protection decisions.

The information can be just as valuable after the fact. We had a spike in FAWN use after Hurricane Irma as producers sought to document crop damage for relief agencies.

During hurricane season, everyone, not just farmers, pays a little more attention to the weather. FAWN pays attention all year. Individual agents occasionally go on vacation, but Extension never does.

The future of FAWN includes other parts of UF, not just IFAS, gleaning useful grower data. For example, the Emerging Pathogens Institute may use FAWN data to determine how to limit your employees' vulnerability to heat stress, a huge challenge in a climate like ours.

Extension brings UF to you. Usually it's IFAS that has your solutions, but Extension finds what you need among UF's 16 colleges and thousands of faculty members.

The spread of UF/IFAS FAWN stations means you can carry us around with you in your pocket. Extension meets you where you are. If you're like most people, that's increasingly on your smartphone. It's part of our 24/7 commitment to production agriculture.

Jack Payne is the University of Florida's senior vice president for agriculture and natural resources and head of the UF Institute of Food and Agricultural Sciences.