



Since 1998, the **Florida Automated** Weather Network (FAWN) has been providing growers with accurate. by-the-minute meteorological data that can help them prepare for freezes, schedule irrigation, and understand long-term climate patterns. FAWN's cold protection and irrigation tools have been especially useful for Florida's citrus growers.



HELPING FLORIDA'S AGRICULTURE INDUSTRY SAVE WATER AND MONEY

Florida Agriculture

Florida's agricultural industry produces \$160 billion economic impact and **2.5 million** jobs.¹

Florida crops **Occasionally** require irrigation for cold protection in the winter, and optimization of water use is critical in Florida due to increasing competition for limited water supplies.

Cold Protection

1.8 billion gallons of water per hour are required to protect Florida's citrus crop from cold.²

In a cold winter season, use of FAWN tools can save 14 hours of irrigation per week -25 billion gallons of water, or \$13 million³

In a warm winter season, use of FAWN tool can save 4 hours of irrigation per week - 7 billion gallons of water, or \$3.8 million.³



Citrus Irrigation Scheduling

Growers testing FAWN's Citrus **Microsprinkler** Irrigation



Scheduler tool used approximately 20% less water

Potential annual **Savings** for small citrus growers (100 to 500 acres) are \$3,300 to \$16,500; for

large growers (1,000 to 5,000 acres), \$33.000 to \$165.000.4

Potential annual savings for large corporate citrus operations are at least \$330.000.⁴

Making an Impact

62% benefited from using FAWN tools by reducing costs/increasing dollar returns, reducing water usage, and/or saving crops from severe damage, or livestock from harm.⁵

Source: Jackson, J.L., K. Morgan, and W.R. Lusher. 2019. Citrus Cold Weather Protection and Irrigation Scheduling Tools Using Florida Automated Weather Network (FAWN) Data. UF/ IFAS EDIS publication SL296. http://edis.ifas.ufl.edu/ss509.

- 1. Economic Contributions of Florida's Agriculture, Natural Resources, and Food Industries, 2019, https://fred.ifas.ufl.edu/extension/economic-impact-analysis-program/
- regional-economic-analysis/

2. Cost to apply one acre with one inch of water: \$14.17.

- 3. Cold winter season requires up to 20 nights of cold protection; warm winter is up to 2 nights. 4. Estimated cost of irrigation per acre per year: \$166; 20% savings would approximate to \$33
 - per acre per year

5. FAWN User Survey, 2022 (N=73)