

FARMING

noun. [farm-ing]

The art of losing
money while
working 400 hours
a month to
feed people who think
you are
trying to kill them.

Georgia Drip
Irrigation
Information
September
2023



Working with Florida Agriculture

- To help improve and protect water Quality

- We are a World Wide Conservation Organization
- We own 500,000 plus ag acres across America, so we practice what we preach.



It's A Priority

Better crop performance, improved soil health, and cleaner air and water.



RIGHT SOURCE

Matches fertilizer type to crop needs.



RIGHT RATE

Matches amount of fertilizer to crop needs.



RIGHT TIME

Makes nutrients available when crops need them.



RIGHT PLACE

Keeps nutrients where crops can use them.

Best Management Practices

- For the purposes of the Florida Department of Agriculture and Consumer Services' Best Management Practices (BMP) program, a BMP is defined by law as a means, a practice or combination of practices determined by the coordinating agencies, based on research, field testing and expert review, to be the most effective and practicable on-location means, including economic and technological considerations, for improving water quality in agricultural and urban discharges. According to Section 373.4595(2)(a), Florida Statutes, BMPs for agricultural discharges must reflect a balance between water quality improvements and agricultural productivity.
- **“Presumption of Compliance”**

What Are Agricultural Best Management Practices?

Categories of practices include:

- **Nutrient management** to determine nutrient needs and sources and manage nutrient applications (including manure) to minimize impacts to water resources.
- **Irrigation management** to address the method and scheduling of irrigation to reduce water and nutrient losses to the environment.
- **Water resource protection** using buffers, setbacks and swales to reduce or prevent the transport of sediments and nutrients from production areas to waterbodies.

BMAPS
BASIN MANAGEMENT ACTION PLANS

REQUIRES NUTRIENT LOAD REDUCTION BY
FLORIDA DEPARTMENT OF ENVIRONMENTAL
PROTECTION

EXAMPLE:

SUWANNEE BMAP

TMDL REDUCTION: 4,075,935 lb-N/yr

Ag is responsible for 80% of the reduction

The second issue is now **SB712** which was passed this year and focuses on water quality. The new statutory language: *“At least every 2 years, the Florida Department of Agriculture and Consumer Services (FDACS) shall perform onsite inspections of each agriculture producer that enrolls in a Best Management Practice (BMP) to ensure that such practice is being properly implemented. Such verification must include a collection and review of the BMP documentation from the previous 2 years required by rules adopted pursuant to subparagraph ©2 including, but not limited to, nitrogen and phosphorus fertilizer application records, which must be collected and retained pursuant to subparagraphs ©3, 4 and 6.”*

SUCCESS IN USING THE 4R's

Right Source

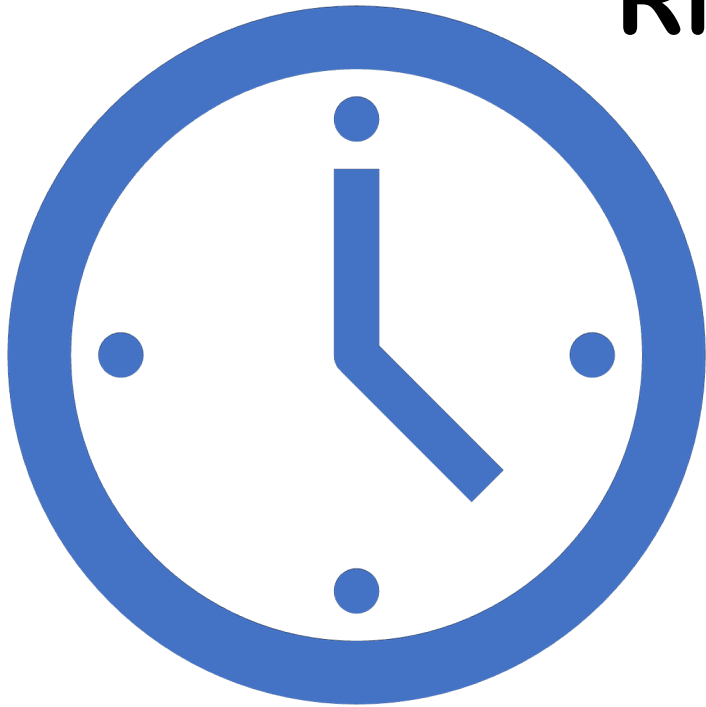
Right Rate

Right Time

Right Place

PLUS

Right Irrigation



Drip Irrigation / Fertigation

- Spoon feeding the nutrients, conserving water – keeping all in the rootzone
- Irrigation Management is NUTRIENT Management





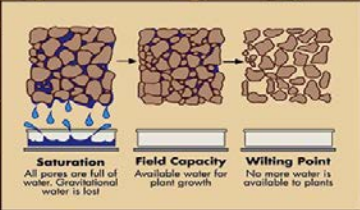
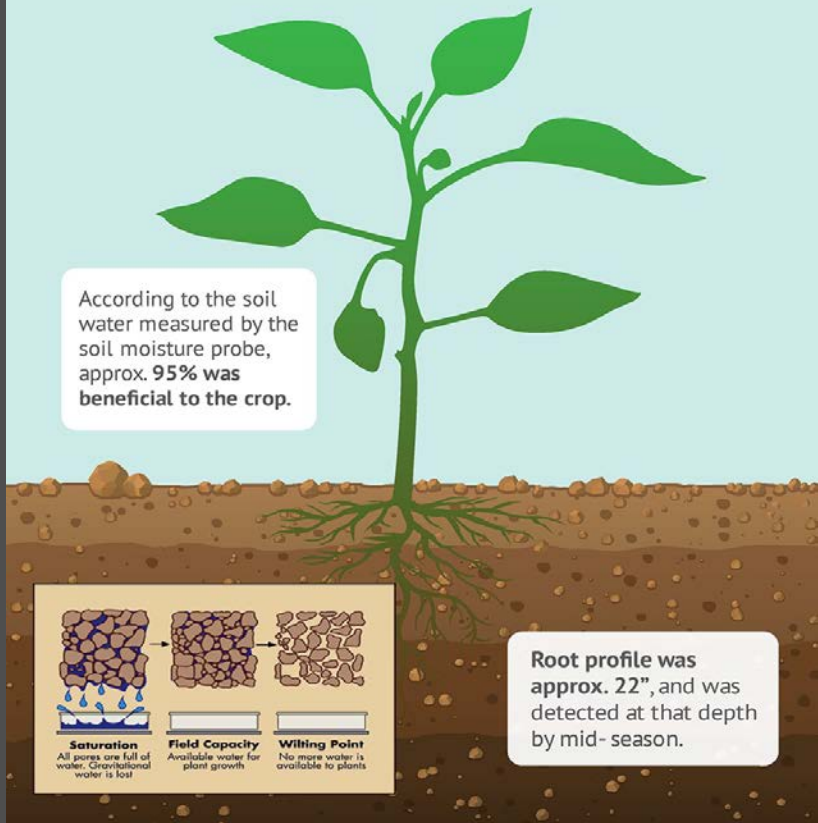


Water savings
with probe use



Savings in
fertilizer use

According to the soil water measured by the soil moisture probe, approx. 95% was beneficial to the crop.



Root profile was approx. 22", and was detected at that depth by mid- season.



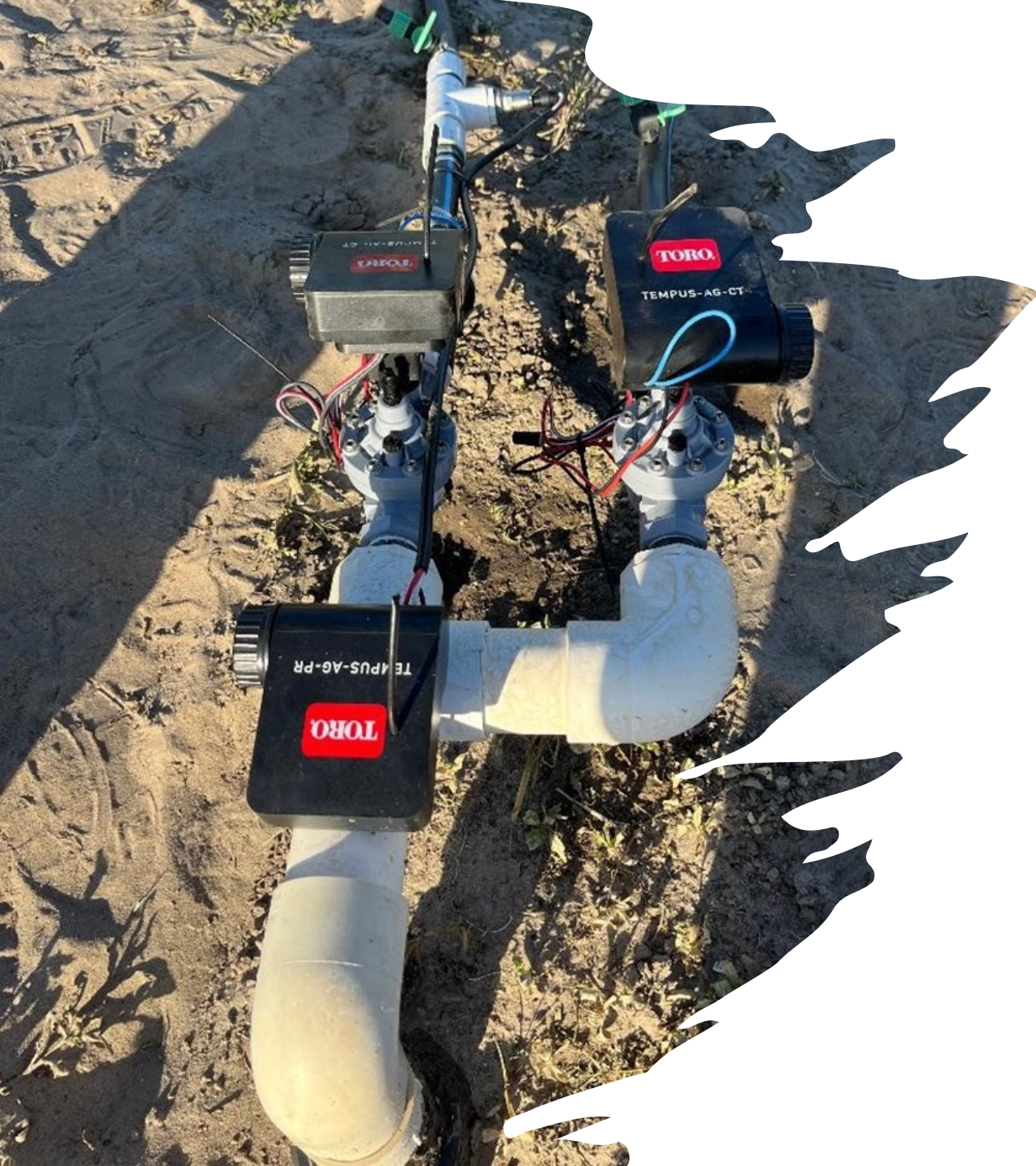
Soil Moisture Probe & Weather Station in Watermelons

- Soil moisture, soil salinity, and soil temperature readings give a complete picture of what's happening in the soil profile.



Soil Moisture
Probes in
Mature Trees

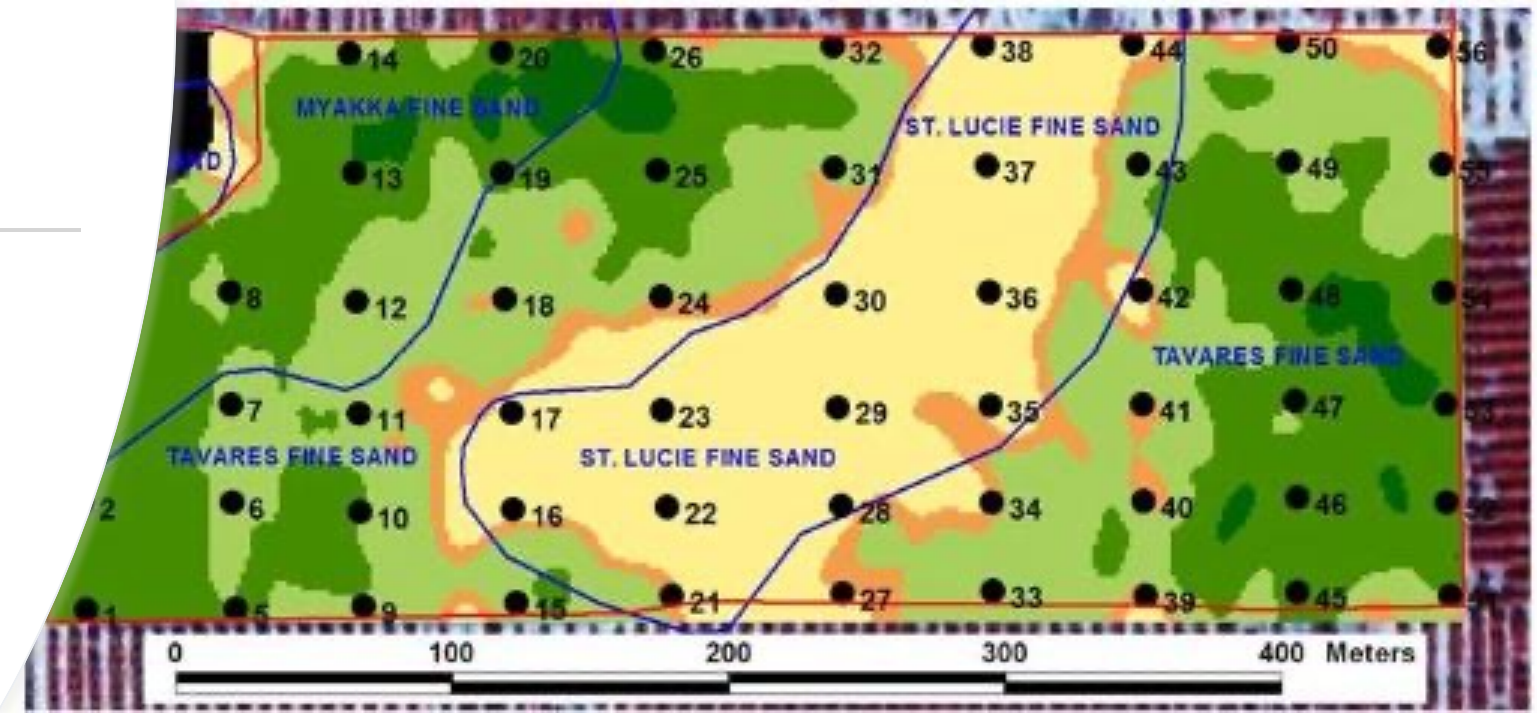
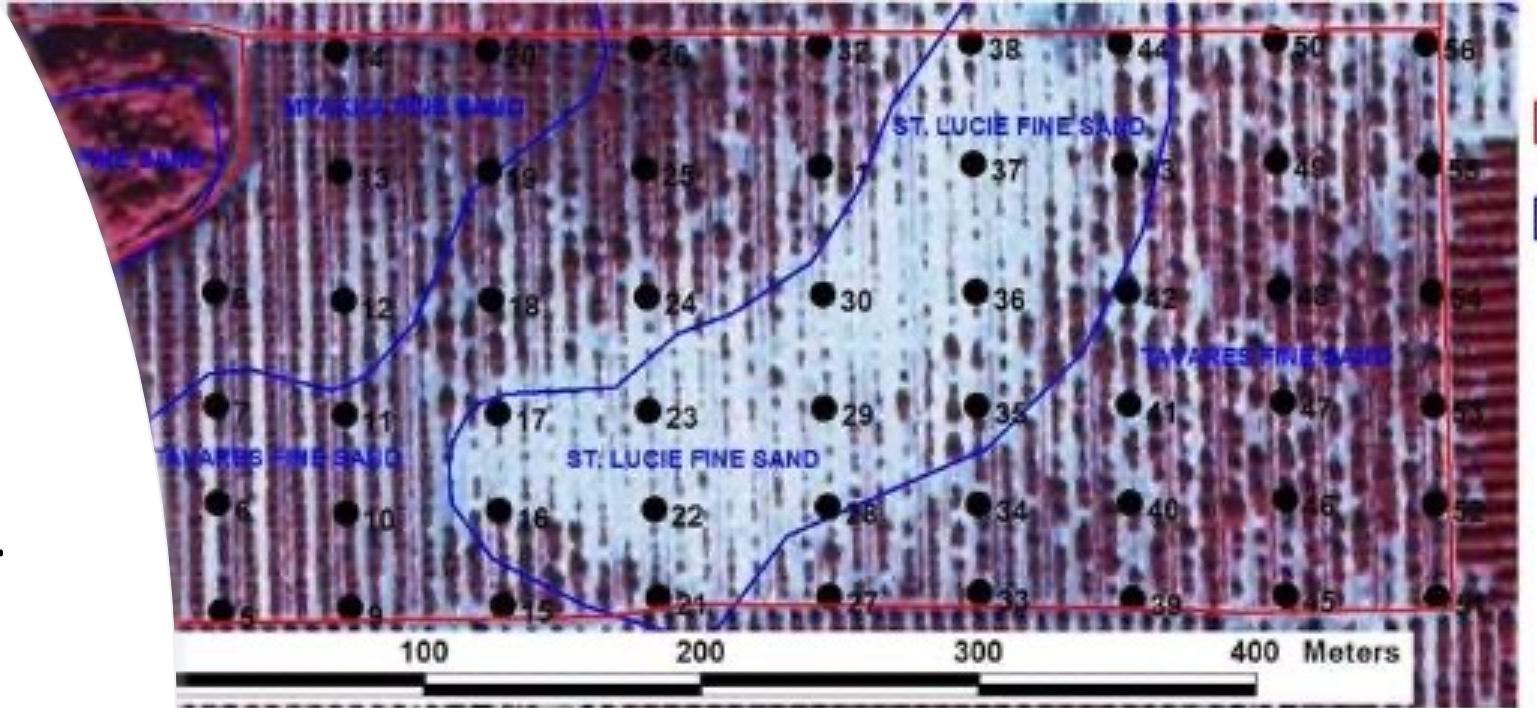




Automation Systems

- Allow you to fertigate and water by zones
- Reduce excess nutrients
- Conserve water

Grid Sample –
soil type and
pH




Water Quality is our **END GOAL**





COST SHARE PROGRAMS

FDACS works with multiple partners, including the U.S. Department of Agriculture's Natural Resources Conservation Service, FDEP, water management districts, and soil and water conservation districts, to provide funding to assist producers in implementing Best Management Practices. FDACS prioritizes the use of cost share funding for projects and practices that provide the greatest benefits to water resources.





• **Mobile Irrigation Labs Provide Cost-Free Agricultural Irrigation Evaluations**

- Mobile Irrigation Labs (MILs) provide free, site-specific irrigation expertise in analyzing irrigation systems and educating agricultural property owners on how to improve the efficiency of their water use. The MILs provide recommendations on the improvement of existing irrigation systems and equipment and educate their customers and the general public on water conservation, irrigation planning and irrigation management.

TNC partnership with IFAS Extension Agents

New soil moisture probes are expected to save water for irrigation, keep nutrients out of groundwater and save money for farmers.

The Nature Conservancy and researchers at the University of Florida with funding from Mosaic Company, Inc. have started monitoring water levels in soils for Southwest Florida farmers who will be able to access the data via a digital dashboard.

“The whole key is the soil moisture probes are a great tool for the ag industry to manage their irrigation which in return manages their nutrients because you are not pushing the nutrients out of the root zone of the plants,” according to David Royal, Florida Nutrient Stewardship Project manager.





TEAM EFFORT

**TO MAKE A
DIFFERENCE**



The Nature Conservancy



Protecting nature. Preserving life.®

***Working with Florida Agriculture
To help Improve & Protect water quality***

QUESTIONS

Thank You

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