A GROWER'S STORY

Best Management Practices
Water Conservation

Watermelon and potato growers work to implement best management practices in order to use water more efficiently. Learn more about the grower's journey.

UF IFAS UNIVERSITY of FLORIDA

Center for Public Issues Education

BMPs FLORIDA AGRICULTURE

Growers Alan Jones and Adrian Land work to use water effectively and efficiently by implementing best management practices (BMPs) on their farms.

Jones Potato Farm, located in Parrish, Florida, is a family-owned and operated business. The farm produces potatoes, green beans, citrus and cattle.

"We grow about 2,500 acres of potatoes annually, 1,200 acres of green beans, 800 acres of citrus and have a cow-calf operation," said Alan Jones, owner and operator of Jones Potato Farm.

Jones said he wants to use tools that will ultimately have a lasting effect on not only his operation, but other facets of agricultural production. Jones implements as many BMPs that work for his operation as possible in order to decrease the effects farming may have on the environment.

"We implement BMPs that have downstream effects," Jones said. "Not only is it what is good for me, it's good for the environment, and it's good for the community."

Jones said every operation is different, just like every human is different. Each operation has its own set of nutrition and water requirements. On his operation, Jones uses float wells as a tool to monitor the operations water tables.

"Float wells basically monitor your water tables, and with the indicator rod, it will show you where your sufficient water table is," Jones said. "In Florida, what we're seeing is that it gives us a range of how wet or dry the soil is."

Jones said the tables are easy to monitor and gives the farm manager real-time data in the field versus having to check a device. He considers his BMPs to be a part of a management system that includes integrated pest management, soil moisture monitoring, and an extensive soil management system that utilizes precision agriculture to get the most out of their operation.

"The soil management system requires grid sampling and analysis of data that maps our soils, basically, and gives us the data to understand all our different soil types," Jones said.

Jones said not all practices he implements are necessarily BMPs recognized statewide, but while they are not tried and true, the practices do have an impact on the environment and his operation.

"We are trying to make a positive impact on our water, soil, environment and energy," Jones said.

He said the more data a farmer has enables the farmer to make better decisions. Jones said he tries to record as much data as possible from each year of experience.

"You only get one lesson a year when you're farming, maybe two, a fall and

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-Alan Jones, Potato Grower

a spring," Jones said. "You have to try to develop as much data as you can and real-time data to allow you to make the proper decisions."

Jones has worked with extension agents to host field days on the farm to show other growers the practices they have implemented. Soil management and precision farming are two applications he said are applicable to almost any agricultural operation.

Adrian Land is a seventh-generation farmer whose operation is located in the Suwannee River Valley area. He and his family grow watermelons in both Lafayette and Suwannee counties. Land said he also produces beef cattle, hay, tons of cover crops and sod.

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-Adrian Land, Watermelon Grower

Land said when he started growing watermelons, he was using overhead irrigation and old rainbow travelers to water his crops. After attending a conference where he was introduced to drip tape, he decided to try to slowly implement the practice.

"I tried 10 acres the first year and 20 acres the second year, and it really seemed to work," Land said. "By year three, I was 100 percent drip irrigation."

Land said the switch to drip irrigation created tremendous water savings for and aided heavily in the efficiency of the operation. He said he began working with University of Florida (UF) Institute of Food and Agricultural Sciences (IFAS) extension agent Bob Hochmuth, as another major step toward efficiency.

"I let him come out and do some dye tests with some students at UF, and he convinced me we were over irrigating, over fertilizing, and overdoing everything." Land said. "We cut our water consumption, because of IFAS, back by about 90 percent in terms of water usage."

Adrian said another one of the most beneficial BMPs he has implemented is soil moisture probes. He said the probes do save some water, but, more importantly, they give the grower critical timing.

"It tells us exactly what we're doing," Land said. "I farm over about 40 miles, and it's impossible to be in every place."

Land said the soil moisture probes alone changed the water pattern of his farm. He said because of the probes, he is able to water at peak hours and get the crops exactly what they need when they need it.

"I would advise anyone that farmed, anywhere really, but especially in the state of Florida with our population growing at the rate it's growing, to use BMPs," Land said.

The photograph on page two is of Alan Jones and courtesy of Leslie Jones. All other photographs are from Adobe Stock.

ABOUT OUR RESEARCH

The UF/IFAS Center for Public Issues Education in Agriculture and Natural Resources partnered with the Florida Agriculture Best Management Practices program to document grower and extension agent experiences with BMPs. The PIE Center is also conducting research to understand the impacts of BMPs on local growers throughout the state of Florida.

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