

Dairy farm uses tech to improve farming practices



LOCATION:	J&K Dairy Four miles from Sunnyside, Washington
SITUATION:	<ul style="list-style-type: none"> — Milks 3,000 cows — Farms 1,000 acres – 500 acres of silage corn double cropped with triticale, and 500 acres of alfalfa — Uses smart irrigation solutions from Valley® to control and manage pivots remotely
CHALLENGE:	<ul style="list-style-type: none"> — Complying with strict regulations and acting as good stewards — Varying terrain and soil types — Only six to nine inches of rain per year, and weather extremes — Avoiding over-watering — Reducing nitrates in soil and keeping nutrients at root zone
DEPLOYMENT:	<ul style="list-style-type: none"> — Increase soil moisture monitor usage — Use Valley® Scheduling™ to plan and execute proper irrigation — Supply necessary data to ensure good stewardship — Work with an agronomist to analyze data
EFFECT:	<ul style="list-style-type: none"> — Proper water application for varying crops, soil types and weather conditions — Time savings on record keeping and planning — Simple data provides detailed knowledge of resources and crop health



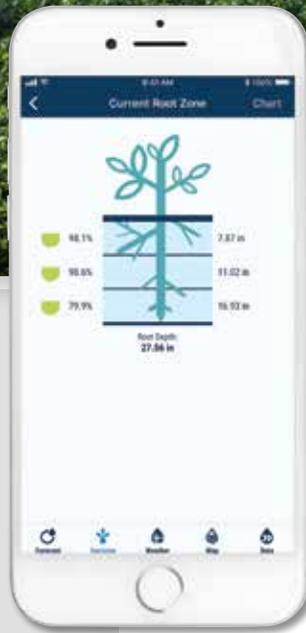
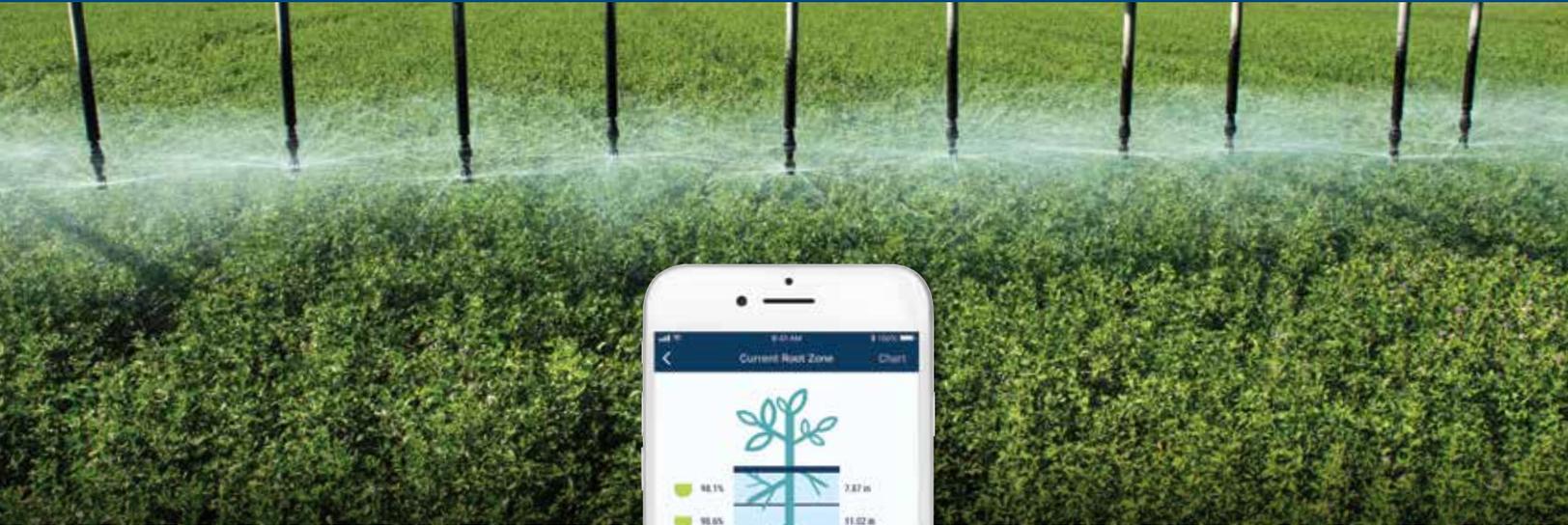
J&K Dairy is a family dairy and farming operation in the Yakima Valley in Washington. Along with their cattle and milking operation, they grow silage on about a thousand acres.

Jason Sheehan is the owner and operator of J&K Dairy. He irrigates all of his crops with 16 Valley pivots and some corners. He's been using smart irrigation solutions from Valley to control and manage them since 2016, and he recently added Valley Scheduling into the mix.

"We have some guys who work with our irrigation who have some struggles with the language," explains Sheehan, "and with remote management solutions from Valley, I can do a quick spot check on my phone to make sure everything is all set the way I want it. I also really like being able to change the end guns and boundary settings right from the edge of the field. I don't have to go to the panel to make changes."

Valley Scheduling is advanced irrigation management software that gathers data about the crop's stage of development, soil types, automatically updated weather conditions, moisture and more to provide better informed irrigation scheduling recommendations. It can be used alone or in conjunction with Valley solutions, and recommendations can be viewed online, on the Valley Scheduling app or via their remote management platform.

"It's all on one simple app, and I don't have to spend time looking other places for the information."



Keeping up with regulations, being good stewards

Like so many dairies in the area, J&K is under intense public scrutiny, and they take part in a cost-share program through the NRCS. This government program is dedicated to lowering nitrate levels in the soil and keeping nutrients at the root zone.

“By using our probes and Valley Scheduling, we can avoid over-watering,” Sheehan explains, “so we can keep our soil profile full enough to keep the plants healthy, but we’re not pushing nitrates out of the root zone. Nutrients are affected by the amount and the timing of application, and by how hard water is pushed through the soil.”

He says they are doing all they can to ensure good stewardship of resources to maintain and even improve the environment for the next generation, but with the tight regulations, they also need to be able to prove it.

“It’s important to us to conserve resources and the environment,” he says, “and we’re using technology to help us improve farming practices and make sure we’re doing things right. I can see everything right on my phone, including the soil’s water holding capacity. It’s also a bonus that we have the data to back us up.”

That data comes by combining the technology of his four soil moisture monitors with Valley Scheduling and tracking his water through reports he receives from his BaseStation3™ software.

Moisture monitoring makes a difference

Two of Sheehan’s probes are in cost-share fields, and two are in fields that have different soil types, including one that is the sandiest field on his farm.

“I had never grown alfalfa in that field before, so I wanted to track what was happening there,” he says.

He found that weather extremes made a real and immediate difference in how he applied water.

“Water usage needs go down very quickly when the temperature drops,” he says. “Using Valley Scheduling helped us see and prevent over-watering, while letting us keep up with water needs when temps went up.”

Sheehan worked closely with Dan Burgard, Principal Soil Scientist with Cascade Earth Sciences, a Valmont® company, to install his moisture monitors.

“Dan installed them, and ended up moving one of the probes to get it in the proper spot,” says Sheehan. “We were in contact every couple of weeks throughout the growing season. He was very helpful.”

J&K also works with an agronomist, who will comb through the data during the off season.

“Having that data for record keeping is a huge benefit for us,” Sheehan says. “We can make sure we’re following what’s going on out in the fields and water correctly. Along with Valley remote management software, moisture monitors and Valley Scheduling, it’s a huge timesaver.”