Irrigating cranberries by phone

By GAIL OBERST For the Capital Press

PORT ORFORD. Ore. -Nick Puhl, 29, hadn't intended to be a cranberry grower. After training in computer numerically controlled machining — known as CNC — he went to work building helicopter, jet and car parts.

But in 2009, when his father, Ron, lost a series of farm managers, he moved back home to Port Orford to help manage Cape Blanco Cranberries. Part of the farmland has been in his family's hands since the early 1900s. His father put in cranberries in 1992.

"They needed me, so I came back," Nick shrugged. He brought with him skills he picked up from the CNC world. Today, those modern innovations save time for workers at Cape Blanco Cranberries, his family's company, but they also improve the crop's quality, reduce water use and save time.

Among those innovations are gadgets that allow Nick to control his pumps from his cell phone. Nick can check water, soil and weather conditions during the growing season at a website that gathers and stores the data relayed from the beds



Gail Oberst/For the Capital Press

Nick Puhl, 29, brought his technical know-how to his family's Port Orford, Ore., cranberry farm, helping save money, water and time by controlling irrigation using his smart phone.

and pumps. He can then decide which beds need water — each pump controls about 5 acres of irrigation. From anywhere in cell range, with a swipe and a tap on his smart phone, he can turn on the appropriate pump - and viola! Water saved, cranberries happy.

This was especially handy during the 2017 growing season, a dry and hot one during which water became scarce.

Cranberry growers typically capture rainwater throughout the year in ponds that are used for irrigation during spring and summer, and for flooding and floating the berries during harvest. Even wet Cape Blanco, with an average annual rainfall of about 76 inches, saw a water shortage, Nick said.

Water conservation, as well as his father's foresight to build larger storage ponds, got them through the summer.

So happy were his eight varieties of cranberries in 2017 that harvest lasted into December, the peak of the cranberry-eating season. Nick took a moment to be proud: "Nobody else delivers fresh-picked, fresh-packed cranberries this time of year."

Specific watering practices,

among other innovative techniques, allow the cranberries to remain on the vine longer, developing a deep red color, higher sugars and lower acids.

The south coast's mild climate provides a longer growing season and promotes the berry's color and flavor. On Dec. 19, when Nick harvested his last beds, the temperature had been in the high 40s and 50s all week. Wisconsin, which grows more than 60 percent of the nation's cranberries, typically ends harvests in mid-October and was already below freezing on Dec. 19.

With financial and technical help from the Natural Resources Conservation Service and its Environmental Quality Incentives Program — known as EQIP — Cape Blanco Cranberries has installed upgrades on nine pumps for 45 of his 80 acres split between Bandon and Port Orford. An automated system, which can cycle water on and off as needed based on temperature readings, can reduce water and energy use by up to 50 percent, according to Eric Moeggenberg, the district conservationist for the Coos and Curry county NRCS office.

The pumps also monitor their own efficiency checking the pressure and flow, then report it back to a data-collection and irrigation control website. When he sees a pump problem, Nick can fix it immediately. Before, problems might have gone unnoticed, wasting water.

"We're pretty fortunate that I know how to do that sort of thing," Nick said. He's not stingy with his skills. The extra time allows him to do extra work for other farmers and machinists on computer-controlled machinery for their beds and machinery.

The radio or computer-controlled pumps and irrigation are not the farm's only innovations. The Puhls are also replacing old vines the perennials can last up to a century — with new vines that are DNA-certified, adding more value to their fruit, and better production.

For more information about the data-collection website and software. MeasureTek, visit www.MeasureTek.com. For information about EQIP, visit www. nrcs.usda.gov, or your local Soil and Water Conservation District office.





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