

Water-saving technology tested at Mondavi Winery

By MIKE TRELEVEN, Register Staff Writer | Posted: Friday, June 25, 2010 12:00 am

WEDNESDAY - JUNE 23, 2010 - OAKVILLE, CA - Pieter Hoff, inventor of the Groasis waterboxx, shows off the device at Robert Mondavi Winery in Oakville on Wednesday. The motorcycle-sized device, which is left on plants for the first year, works as a water incubator and produces and captures water through condensation and rain. J.L. Sousa/Register



Robert Mondavi Winery is field testing a new, simple technology that allows young grapevines to thrive by getting needed water from the atmosphere and not from an underground aquifer.

The invention, the Groasis Waterboxx, can potentially save grapegrowers 175,000 gallons per year per acre, said inventor Pieter Hoff, 57, who lives in the Netherlands. "You are seeing a historic launch today," said Bart van Bolhuis, consulate general of the Netherlands, who attended Tuesday's unveiling at Mondavi. "The Waterboxx is low-tech and high-tech at the same time." Because it saves water and promotes reforestation, his invention is "great in fighting against climate change," Hoff said.

Mondavi Winery is part of a worldwide test of Waterboxxes. Field research is also being done in Spain, Kenya, France, Chile, Ecuador and Morocco. Other California test sites are in Palm Springs and Joshua Tree National Park.

Sitting on top of the soil, the device is filled once with water and that's the last time it has to be bothered with. After that, it collects condensation from the air and rain water.

The plastic Waterboxx is 20 inches in diameter and 10 inches tall. Grape vines poke through a hole in the center.

A wick on the bottom of the Waterboxx delivers small amounts of water to the plant. As a result, there are fewer weeds. Rodents can't destroy the box the same way they chew through a drip irrigation line, Hoff said.

Matt Ashby, director of vineyard operations at Mondavi, is already convinced the technology works. On a dry-farmed sauvignon blanc vineyard west of the winery, Ashby is using the Waterboxx where some vines had to be replaced. His only alternative to the Waterboxx would be for a tractor and driver to go through once a week with a tank of water and give the newly planted vines a soaking. The Waterboxx provides a vine's water needs for a year. Mondavi is equipping 600 young vines with Waterboxxes.

For Ashby, the question is how Hoff's technology will work in a large-scale situation.

Mondavi is replanting a nine-acre vineyard. Part of it will be dry-land farmed, but the majority will be on drip irrigation. The winery will compare the dry-farmed vines on Waterboxxes to new vines receiving drip irrigation.

Mondavi will also be using the Waterboxx technology to restore riparian habitat along the Napa River, Ashby said.

“This technology will transform the way restoration is done in the future,” said Richard Dale, executive director of the Sonoma Ecology Center.

Hoff is not yet distributing the Waterboxxes on a commercially in the United States. For now, they are being imported from the Netherlands at a cost of 10 boxes for \$275. Hoff wants to produce the boxes locally. He estimates the boxes will sell for \$14.95 each.

“I am convinced it will be a success,” he said.

Hoff was a lilly grower, exporting his flowers to 50 countries. He sold his lilly business to pursue the Waterboxx full time and has gone through 10 prototypes to get to this point.

“Every society that has not solved its environmental problems has died out,” Hoff said.