



Sustainable Growth

By Matthew Hoffman

Winegrowing certification program helps preserve & protect water resources

Wine, like all agricultural products, is dependent on the availability of clean and plentiful water for several viticulture functions, not the least of which is vineyard irrigation. Stewardship of this resource has long been a priority among Lodi winegrowers, and sustainable water management is a key component of the Lodi Rules for Sustainable Winegrowing certification program. The program is hosted by the Lodi Winegrape Commission and accredited by Protected Harvest, a nonprofit organization that certifies sustainably grown crops. This article will explain how Lodi's sustainable winegrowing certification program works and what certification means in terms of water management.

The Lodi wine region is home to 750 growers farming more than 100,000 acres of wine grapes. Situated in the Central Valley directly east of the San Francisco Bay, Lodi is a historical winegrowing region and produces about 20% of California's annual crush. Its Mediterranean climate is well suited for wine grape production, with warm, dry summers and cool, wet winters. Sandy soils, such as Tokay Fine Sandy Loam, are widespread. Zinfandel is its flagship variety, with almost 40% of California's Zinfandel coming from Lodi vineyards. It is well known for "old vine" Zinfandel wine. More than 75 different wine grape varieties are farmed in Lodi. More than 80 wineries are in operation in Lodi and the number is growing.

The Lodi Rules program has grown since its launch in 2005. As of 2014, more than 30,000 acres are certified. During that year, certified acreage grew by 3,385 acres. About 20% of Lodi's acreage is certified sustainable. This growth reflects positively on the program and is a measure of success and relevance.

Certification Methods

Lodi Rules certification is awarded annually to individual vineyard blocks based on implementation of 101 practices, including 14 that address water

management. Throughout the year, growers implement sustainable practices, which are documented in detail. Prior to harvest, an independent auditor verifies implementation by examining farm records and the vineyards themselves. Wineries making wines from certified grapes and printing the seal on labels maintain strict chain-of-custody records to demonstrate that at least 85% of the wine originated from certified grapes.

The Lodi Rules program comprises two key components. First are the 101 sustainability standards. These farming practices were collaboratively developed by a team of Lodi growers, scientists and viticulturists. These practices are the backbone of the program and are organized into six chapters: business management, human resource management, ecosystem management, soil management, water management and pest management. All standards have been accredited by Protected Harvest. Growers accumulate points by adopting practices to varying degrees. To qualify for certification, growers must accumulate at least 50% of the total points available in each chapter and at least 70% of the total points available overall.

The second key component of the Lodi Rules is the Pesticide Environmental Assessment System (PEAS). PEAS is a model used to quantify the impact of pesticides on the environment and humans. The PEAS model generates an Environmental Impact Unit (EIU) for each pesticide, which is based on acute risk to farm workers, dietary risks from acute and chronic exposure to people who consume the product, acute risks to small aquatic invertebrates, acute risk to birds, and acute risk to bees and other natural enemies of pests. The EIUs for the pesticides used in each vineyard per year cannot exceed 50.

Sustaining Water Resources

The Lodi Rules program dedicates a chapter to sustainable water management. Included are 15 practices with the goal of helping growers maintain healthy and productive vineyards while simultaneously conserving

water and preserving water quality.

Practices in this chapter include, for example, installing flowmeters on wells and pumps to monitor irrigation water use and conducting a distribution uniformity test of a drip irrigation system, which helps maintain even irrigation rates across an entire vineyard. Growers also can score points toward certification by determining the soil's water-holding capacity, which is useful when making decisions about how much water to apply through irrigation.

Practices that contribute to water quality and availability also are included in other chapters. Notable examples include vernal pool and riparian habitat management practices in the ecosystem management chapter. Growers can score points by preserving vernal pools when establishing a new vineyard and planting vegetative buffer strips around vernal pools and rivers or streams. A second example includes the water monitoring practice in the soil management chapter. Points toward certification can be scored by testing water quality annually and adjusting nutrient plans accordingly to avoid excessive nitrogen application. Overall, Lodi Rules growers have a strong record of adopting sustainable water management practices.



Wines bearing the Lodi Rules seal

Strides for Sustainability

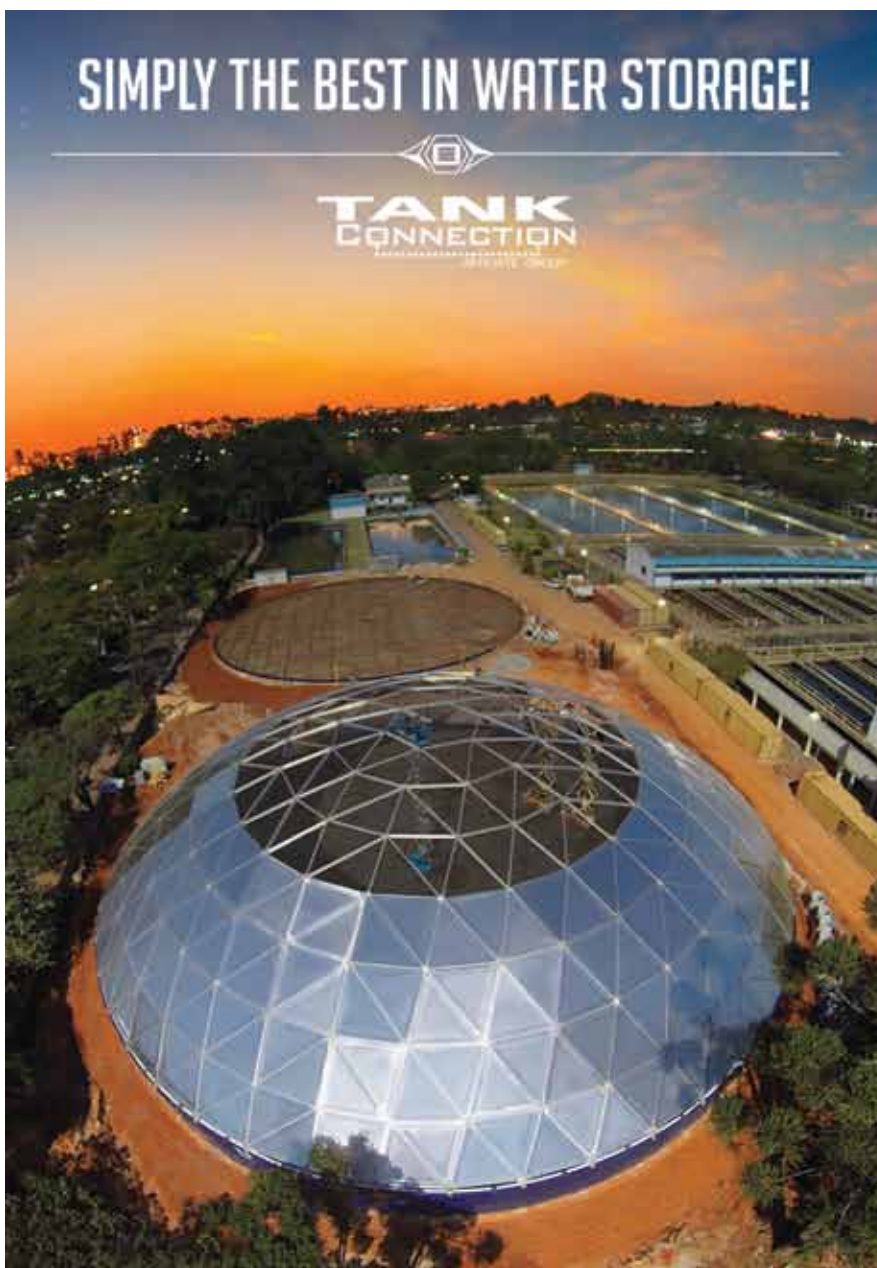
The Lodi Winegrape Commission, Protected Harvest and certified growers strive to maintain the program's rigor and legitimacy. In a world where consumers are looking closely at food and beverage labels, the Lodi Rules program provides assurance for consumers.

Research from the University of California, Davis, demonstrated that the Lodi Rules program has helped the region make tangible strides toward sustainability. Growers perceive the Lodi Rules to be successful in achieving a number of goals, including

improving consumer perception of the Lodi region, improving wine grape quality, reducing risk of agriculture's negative impact on the environment and human health, improving wildlife habitat and biodiversity, and improving Lodi's relationship with regulatory agencies. Furthermore, the research provides insight into whether the Lodi Rules program has achieved one of its fundamental goals: support grower implementation of sustainable farming practices. Lodi Rules-certified growers implement a considerably greater number of sustainability practices compared with uncertified growers. Such research validates the certification program's effectiveness and goes a long way toward supporting the claim that wines made from certified-sustainable grapes are set apart from others.

The Lodi Rules seal on wine labels represents farmers making strides to achieve sustainability. Visit www.lodirules.com for more information about the Lodi Rules for Sustainable Winegrowing certification program and a list of certified vineyards and wines bearing the Lodi Rules seal. **w&wd**

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