

## SUSTAINABILITY OVERVIEW

### SUSTAINABILITY IN OUR VINEYARDS

Chateau Ste. Michelle pioneered vinifera grape growing in Washington State's Columbia Valley and is a leader in modern day viticultural research and sustainability. Chateau Ste. Michelle is committed to using sustainable agricultural practices in all of the winery's 3,500 vineyard acres in Washington. Some of the winery's current sustainable practices in the vineyards include reducing soil erosion through the planting of beneficial cover crops; safe, controlled spraying using soft pesticides (such as biodegradable oils, soaps, and plant extracts), and conducting and participating in ongoing research on environmentally-friendly methods of pest control.

Chateau Ste. Michelle's aggressive sustainability program at Cold Creek and Canoe Ridge Estate vineyards focuses on three main areas in which our viticulture staff continually analyzes and fine-tunes operations: pest, soil and plant, and water management.

#### PEST MANAGEMENT

- Maintaining and expanding the registered virus-free mother block.
- Increasing the use of environmentally friendly pest control agents and increasing reliance on soft materials such as biodegradable soaps, oils, and plant extracts.
- Using extensive field monitoring to make sound pest management decisions in an Integrated Pest Management (IMP) approach.
- Using low-impact vehicles such as ATVs throughout the vineyards to increase fuel and work efficiency.

#### SOIL AND PLANT MANAGEMENT

- Reducing soil erosion through a green cover of beneficial native grasses and cereal grains, which also provide habitat to attract beneficial insects to the vineyards.

#### WATER MANAGEMENT

- Using weather stations and soil moisture-measuring probes to monitor water use and eliminate wasted water in the vineyards.

These practices helped Chateau Ste. Michelle's Cold Creek and Canoe Ridge Estate vineyards earn third party sustainable certification for LIVE and Salmon Safe in the fall of 2009.

#### LIVE (LOW INPUT VITICULTURE AND ENOLOGY)

LIVE is a non-profit organization that offers third-party sustainable certification through the International Organization for Biological Control, which promotes the use of sustainable, environmentally safe, economically feasible and socially acceptable control methods. LIVE uses international standards of sustainable viticultural and enological practices in both wine-grape and wine production. These practices are based on an independent 3rd-party-verified checklist system consisting of required and prohibited elements, as well as numerous ecological options.

For more information on LIVE visit [www.liveinc.org](http://www.liveinc.org).

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### SALMON-SAFE

Erosion and runoff from hill side vineyards can bring silt into streams, reducing the ability of native salmon to spawn and thrive. The Salmon-Safe program helps vineyards protect and restore salmon habitat by planting trees on streams, growing cover crops to control run-off, and apply natural methods to control weeds and pests. Vineyards that meet the program's rigorous standards earn certification and are able to use the Salmon-Safe label. The Salmon-Safe label on a bottle of wine means the grapes used in that wine were grown using healthy practices that keep Pacific Northwest rivers clean enough for native salmon to thrive. Salmon-Safe certification standards are a part of LIVE certification.

Chateau Ste. Michelle will add the LIVE and Salmon Safe certification on its Cold Creek and Canoe Ridge Estate single vineyard wine labels starting with the 2009 vintage.

For more information on Salmon Safe visit [www.salmonsafe.org](http://www.salmonsafe.org).

### CONSERVATION IN OUR WINERY

Chateau Ste. Michelle also continually works to exercise sustainable practices in the winery. Conservation efforts include reduction of energy consumption, water conservation and solid waste reduction and management. Chateau Ste. Michelle is a Washington state certified EnviroStar business.

### ENERGY CONSERVATION

**STARS (SELECTIVE TARTRATE REMOVAL SYSTEM)** In March 2010, Chateau Ste. Michelle implemented a STARS unit, which uses electrodialysis technology instead of cold stabilization to reliably remove tartrate salts from wine. Cold stabilization is the most common practice used by wineries to remove tartrates in wine, however, the refrigeration involved in this process required large amounts of energy to run. By contrast, the STARS unit conserves electricity and natural gas and reduces energy consumption by up to 95%.

**LIGHTING REPLACEMENT PROGRAM** In 2009, more than 40 lighting fixtures were replaced with T8 fluorescent bulbs which require no warm-up time and maintained a cooler operating temperature at the winery. This also reduced wattage by about 50%. Chateau Ste. Michelle plans to replace more fixtures in the future.

### WATER CONSERVATION

**HEAT EXCHANGER** In January 2010, an enhanced heat exchanger was introduced. As wine comes from cool temperatures in tanks, the heat exchanger works to warm up the wine prior to bottling. The water used to warm the wine is re-circulated, thus reducing water consumption from the previous system by almost 100%, and decreasing natural gas consumption as well.

### WASTE REDUCTION AND MANAGEMENT

Chateau Ste. Michelle recycles glass, paper, cardboard, pallets, stretch wrap, cell phones, batteries and fluorescent bulbs. The winery recycles more than 168 tons of glass, 5 tons of mixed paper, 47 tons of cardboard and 10 tons of stretch wrap every year.

In March 2008, Chateau Ste. Michelle began using new shipper partitions made from 100% recycled paperboard. The new partitions use 50% less material than before, which saves trees and energy and reduces greenhouse gas emissions and solid waste.

