

era “CV” logo on top of an arch that appears to mimic the shape of the gate. John says they chose copper rather than gold because it’s the “working man’s metal.” The new packaging is distinctive, attractive and conveys a product worth far more than its \$20 suggested retail price.

Three new Concannon Vineyard wines sport this handsome new look: 2014 Monterey County Char-

donnay, 2014 Paso Robles Cabernet Sauvignon and 2013 Livermore Valley Petite Sirah. All can be found on supermarket shelves nationwide.

Concannon isn’t alone in a label redesign harkening back to the days of Prohibition. Big House Wines, another Wine Group brand, just announced new packaging that showcases the personalities of the Prohibition era. Most of them did time in prison, (“the big house”),

for serving their fellow citizens a banned substance.

As we approach the 100th anniversary of Prohibition, let’s take a moment to appreciate the contributions of brands like Concannon, which managed to endure despite manmade and natural obstacles. When your ancient motto, in early Gaelic, means “wisdom without compromise,” it’s hard to do anything less.

April Freeze Damage in Mid-Atlantic Region BY JANICE CESSNA

March temperatures in the eastern states ranged 5-to-7°F above average, decreasing cold hardiness and prematurely ending dormancy in some areas. When a vine awakens from its winter nap, the cellular cryoprotectants that sheltered it from freezing temperatures dissolve, and it gradually rehydrates. As water content increases, so does susceptibility to cold damage, particularly for swollen buds and new shoots. So an early awakening sets up a long, tense wait for the probability of freezing temperatures to lessen.

By the beginning of April, Chardonnay in the Alson H. Smith Jr. Agricultural Research and Extension Center (AREC) vineyard in Winchester, Va., ranged from bud swell to 3-inch shoots. Those at the Ohio State University (OSU) vineyard in Wooster, Ohio, had intermittent bud swell; and those at the Pennsylvania State University vineyard near State College, Pa., remained dormant. Unfortunately, on April 6 and April 10, two separate cold fronts passed through the region, bringing nighttime lows in the high teens and low 20s and pushing the decreased cold hardiness of tender buds and green tissue.

OSU Associate Professor Dr. Imed Dami reported the lowest temperature experienced at the OSU vineyard during this cold weather period was 21°F. Compared to the estimate of Chardonnay hardiness at 17°F just prior to the cold temperatures, this indicates Ohio experienced little or no damage. “We didn’t see any damage in any of the varieties that all had [subsequent] normal bud break and shoot growth,” says Dami.

Parts of Virginia weren’t so fortunate. Tony Wolf, viticulture extension specialist at AREC, summarized the

freeze event best in the April 29, 2016, Viticulture Notes newsletter: “While the degree of vine injury varied considerably by variety and vineyard location, and recognizing that it will take some time yet to fully assess the impact, my sense is that Virginia lost as much as 25% of its potential grape crop, and much of this reduction will be borne by Chardonnay, Cabernet Franc and Merlot.”

Freeze events tend to leave vineyard managers feeling a bit helpless. A number of Virginia vineyards used helicopters, wind machines, sprays and vineyard heaters or fires to combat the cold, but, so far, no one reports definitive success. These quick fixes can be expensive, inconsistent or ineffective, and most are helpful only if the actual low temperature is just below the damage threshold.

So far, no Virginia vineyard reports using irrigation, which may be because it’s a commonly misunderstood prevention method. Irrigation water must be applied for the entire duration of freezing

temperatures because the water releases a small amount of heat during application and freezing. This continuous energy transfer provides protection from damage. When irrigation ceases, so does generation of heat. If irrigation is employed, it must be in good, reliable working order. A pump failure or irrigation head clog mid-application could cause more injury than just letting nature run its course.

Really, the best freeze protection comes from selecting region-appropriate, late-ripening varieties; planting them on a site selected with freeze-reducing features like cold air drainage, proper elevation and aspect; and possibly using double-pruning to delay bud swell.



A close-up of Merlot vines damaged by frost in Virginia in May 2013.

Status of Glassy-Winged Sharpshooter and Pierce's Disease Research

BY JANICE CESSNA



The glassy-winged sharpshooter (*Homalodisca vitripennis*) is the culprit behind the spread of Pierce's disease among grapevines. The insect infects the plant with the bacterium *Xylella fastidiosa* when it feeds on the sap from the xylem tissue of a vine. [Photo by Reyes Garcia III, USDA Agricultural Research Service, United States]

In early April, the Napa Valley Register reported detection of a glassy-winged sharpshooter (*Homalodisca vitripennis*) egg mass by Napa County Agricultural Commissioner staff during a routine inspection. The viable egg mass, accompanied by roughly 50 older, non-viable masses, was found on a tree shipped from a Riverside County nursery. This discovery is the second in Napa County this year and indicates transmittance of *Homalodisca vitripennis* (*Hv*) continues to be a very real threat to the region's vineyards.

Native to the southeast Atlantic and Gulf states, the glassy-winged sharpshooter first made headlines as a problem species when it was transmitted to Southern California in the 1990s. It quickly devastated that region's wine grapes as a vector for the *Xylella fastidiosa* bacteria, which causes the incurable Pierce's disease (PD) in grapevines. California's screening and control programs contained and now limit *Hv* from spreading further within the state, but, occasionally, it slips through and makes an appearance elsewhere.

Quickly forming large populations, flying long distances, being a voracious feeder and serving as a disease vector for numerous crops make *Hv* a formidable agricultural pest both in California and the southeastern states. "[*Hv*] is an effective vector for Pierce's disease because it's more mobile than other leafhoppers that can transmit the bacteria," describes a California Department of Food and Agriculture brochure. Once established in a new area, the spread of *Hv* may be slowed using biological or chemical controls, but it's essentially impossible to eradicate.

The most common biological control is the release of parasitic *Gonatocerus* wasps, which prey on *Hv* egg masses and destroy approximately 90% to 100% of them in its second, late summer or early fall reproduction cycle. Chemical control primarily involves application of neonicotinoid pesticides to the vineyard. Pesticides generally check population growth and the spread of PD, but impacts to beneficial insects such as parasitic wasps and honeybees are increasingly controversial.

Currently, PD treatment or prevention methods don't exist. But that could soon change. Texas A&M scientists have isolated four bacteriophages that prey on *Xylella fastidiosa*, created an inoculum comprised of these predator viruses and deployed the inoculum in both *Xylella fastidiosa*-infected and non-infected grapevines. The results indicate great success in both situations. "In this study, we demonstrated the therapeutic and prophylactic efficacy for the application of a cocktail composed of four virulent phages," states the Control of Pierce's Disease by Phage report by Mayukh Das et al. "The phage cocktail reduced the pathogen levels in [infected] grapevines and prevented PD symptom development."

This research could eventually generate a commercially available PD control. Until then, the best method to prevent or control PD is vigilance, starting with *Hv*. Learn how to spot the insect at all life stages and frequently inspect the vineyard and all incoming nursery stock. Their egg masses are laid on the underside of leaves, so look carefully. If evidence of *Hv* is found at a new site, act quickly and contact the local agricultural commissioner or extension agent immediately.

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