### Recycling Online



### Fill 'er up

by Roger Guttentag

By the time you read this column, we should be in the middle of the holiday season that stretches between Thanksgiving and New Year's Day. One way Americans seek to enhance their holiday experience is through the consumption of (hopefully good quality) wine. And this has become a growing trend not only during the holiday period. According to the Wine Institute, a trade organization representing the California wine industry, the U.S. surpassed France in 2010 as the leading wine-consuming nation based on sales of approximately 330 million cases, or about 4 billion bottles. That is a lot of glass, since that that is still the preferred container material for wine. A large percentage of that glass is currently recycled through municipal recycling systems. However, the energy cost for manufacturing and transporting these containers has been increasing. For this reason, there are two possible wine packaging futures that are now being explored. One approach being considered assumes that the current wine distribution system remains unchanged, and that the solution is a lighter alternative to glass. The aseptic packaging manufacturer Tetra Pak, for example, has posted on its website a 2006 report prepared for it by Franklin Associates that claims to show that aseptic packaging has the smallest environmental and greenhouse gas impact as a wine container system when compared to PET or glass. The other approach challenges the assumption that the distribution of wine packaging must be one way only by developing business models that demonstrate the economic viability of reusable wine bottles.

# Wine refilling business examples

Kind Vines (KV)

KV is an Arizona-based wine retailer that describes its product as a zero waste wine that is marketed using a refillable glass bottle. Currently, the company purchases its wines in bulk in California and then packages them locally for retail sales. Customers pay a deposit on the container which is refunded when the bottle is returned. The returned bottles are then washed and refilled locally in Arizona. The container labeling is screened on the bottle to facilitate the washing process. One interesting feature of the KV site is an analysis showing the mileage savings and CO<sup>2</sup> emission reductions achieved through their distribution methods.

Swords Select (SS) Rewine (RW)

These wine shops are based in Australia and provide a variety of wines in refillable containers. The SS retailing process is similar to KV's. The customer buys a wine and pays a deposit on the container. The deposit is refunded after the container is returned. According to the SS's website, their bottles and closures are specifically-designed to allow everything to be washed for reuse. A short video on the Fair Companies website provides a clear explanation on how this system works.

RW takes the refilling process one step further by giving the customer the option to refill their empty wine container at the shop. According to RW, the customer just needs to rinse out the container before bringing it in for refilling. Alternatively, the shop sells a refill kit that allows the customer to buy wines in larger quantities and refill their own containers at home.

## Refilling on a larger scale

Wine Bottle Renew (WBR)
WBR is a new California-based company
that began operations in 2010 with finan-

### Web Address Directory

Wine Institute Statistics
Wine Bottle Renew
Tetra Pak – LCA for Different Wine
Container Systems
Environmental Defence – Refillable Wine
Bottles in Ontario (CN)

Kind Vines

Rewine

Government of Newfoundland and Labrador (CN) – Wine Bottle Recovery Okanagan Purchasing Group Swords Select

Fair Companies – Swords Select Video

http://www.wineinstitute.org/resources/statistics http://winebottlerenew.com

http://tinyurl.com/TetraWine

http://tinyurl.com/EDWine http://www.kindvines.com http://www.rewine.com.au

http://tinyurl.com/NFWine http://okanaganpurchasinggroup.com/ http://www.swordsselect.com.au/ http://tinyurl.com/FCSSWine cial investments from various wineries to develop a bottle sorting and washing facility. WBR's overall goal is to provide for wineries an economical and environmentally-superior alternative to purchasing new containers. A state-of-the-art sorting line is being used to ensure that collected bottles can be properly segregated by style and manufacturing mold. A short video on the company's home page provides a clear overview on their business goals and process. Click on the link to the news section to also access recent business articles that provide additional details on WBR.

Okanagan Purchasing Group (OPG)
The OPG is a consortium of small wineries located in the Okanagan region of British Columbia that was formed in July 2010. One of the purposes of the OPG will be to determine if a wine bottle reuse system can be put in place to replace the current practice of single container use and recycling.

Ever Green Environmental
Corporation (EEC)
A June 2010 press release from the govern-

ment of Newfoundland and Labrador describes a new industrial investment into the EEC by the Solid Waste Management Fund of the province's Multi-Material Stewardship Board (MMSB). The purpose of this investment is to develop the capacity to reuse 500,000 wine bottles, or approximately 20 percent of the total wine bottles that are estimated to be imported annually into the province. The process for achieving this is described as an integrated industrial line for cleaning, delabeling and sorting a very large variety of wine bottles. Unfortunately, there was no discussion of this project on the MMSB's website as of this time.

#### Final thoughts

The bottom line question is: Will wine bottle reuse on a large scale prove to be financially viable? There is reason to believe it can be based on the arguments made in a May 2011 report by Environmental Defence, a Canadian environmental organization. The report, "Refillable Wine Bottles in Ontario: Cases for Reuse," notes that while beer bottles are routinely reused about 15

times, wine bottles are still single use. The report goes on to state that there are four reasons for why wine bottle reuse should be considered a superior packaging option. First, the environmental footprint, especially with respect to greenhouse gas emissions, would be much smaller since the energy and material impacts of manufacturing new glass is avoided. Second, refillable glass wine bottles would be cheaper on a perlife-cycle-unit basis even when the cleaning costs are factored into the analysis. Third, it would stimulate the creation of new jobs that would be required for handling these containers during the refilling cycle and, finally, it would enhance the social image of the wine industry as being environmentally responsible while providing a product customers want. Hopefully, the companies profiled in this column as well as new ones to come will prove these arguments to be correct.

Roger M. Guttentag is a recycling and solid waste consultant located in Harleysville, Pennsylvania. He can be contacted at (610) 584-8836 or rguttentag@comcast.net.