



Harvest, squeeze, ship and freeze

Tomasello Winery began using 1,000-L corrugated bulk shipping containers to export fruit wines to the Far East. Now, the winery also uses the IBCs for temporary freezer storage of grape juice for sweet dessert wines shipped domestically.

Lauren R. Hartman, Senior Editor

Dedicated to the production of table and sparkling wines, Tomasello Winery, Hammonton, NJ, has been actively making wines in Atlantic County, NJ, since 1933. Hearing through the grapevine, PD learns that Tomasello is saying "cheers!" to a packaging choice it made in the form of a 1,000-L corrugated intermediate bulk container (IBC) from SpaceKraft



Div. of Weyerhaeuser that's helping to extend the winery's busiest season.

The largest winery in New Jersey, Tomasello produces more than half of the state's 190,000-gal annual wine output.

Tomasello wines are also sold throughout New Jersey, Philadelphia, New York and Florida.

The winery offers 25 varietal wines, seven or eight sparkling wines and several dessert wines. But it also offers five 100-percent fruit wines that it ferments in small lots under very cold conditions to maximize fruit character extraction. Only fruit selected from specific growers is used to produce Tomasello fruit wines, including blueberry, raspberry, blackberry, cherry and cranberry, which the winery describes as being intense in their fruit character, but

balanced in their relative acidity and sweetness.

Partial to blueberries overseas

Located halfway between Philadelphia and Atlantic City, Hammonton, where the winery and vineyards reside, happens to be the Blueberry Capital of the World. Tomasello's 100-percent pure blueberry wine is made from cultivated high-bush blueberries grown on the Atlantic Blueberry Company farms.

The blueberry wine is a special favorite in Japan, so the winery was contracted to bulk-ship this wine to Japan for private-label bottling. A search for an economical bulk shipping system led Tomasello to the SpaceKraft IBCs, says Jack Tomasello, vp of the winery. The insulating properties of SpaceKraft's IBCs were especially important for wines like the blueberry variety, he says.

"We began using SpaceKraft's Export IBC container when we started shipping fruit wines in bulk to the Far East for private labeling," he points out. "The containers are recyclable and biodegradable, so they're good for shipping to Japan, South Korea, Taiwan and other countries where environmental regulations are strict and container disposal can be costly."

Made of eight plies of corrugated, the IBC provides a lot of insulating

dead-air space, he adds. "Compared to drums and other types of bulk containers we looked at, the SpaceKraft's IBCs provide far better insulation, so they protect our wines against extreme heat or cold during transit."

The 1,000-L IBC consists of three main components: an outer corrugated sleeve or shell; an inner film liner inside a corrugated cassette; and a corrugated top cap. The outer corrugated sleeve is made by a patented process that continuously winds eight plies of A-flute corrugated medium (69# linerboard and 36# medium) into a seamless shell that eliminates the manufacturer's joint, metal staples and any wood components. The Export container measures 44×44×40 in., and fits on a 44-in.-sq pallet. Designed for use in seagoing containers, the rectangular outer container has 30 tons of compression strength.

The container's inner film liner is a food-grade bag from Scholle, provided within the prefolded, corrugated cassette for quick setup. Equipped with a 2-in.-dia threaded filling fitment at the top and a 2-in.-dia buttress-threaded dispensing fitment at the base, the bag liner is made of

SpaceKraft relates a fish story about its IBCs at Westward Seafoods in Unalaska. Read about it at www.packagingdigest.com/info/westward



two inner 4-mil plies of linear low-density polyethylene film and an outer laminated ply of 2-mil LDPE/60-ga biaxially oriented nylon/2-mil LLDPE.

Shipped flat to Tomasello in the early fall, 12 to a pallet, the bulk totes are delivered to the processing floor by forklift when the fruit wines finish fermenting and are ready for shipping. Tomasello says an operator can set up each IBC in less than one minute, placing the sleeve on a pallet, inserting the corrugated liner cassette and opening the bag liner.

Operators set up the IBC next to the appropriate stainless-steel mixing tank, where a 2-in.-dia dispensing hose is connected from the tank to the inner liner's filling valve and a volumetric pump fills the container. When the container is completely filled, an operator closes the liner's valve, pulls a plastic shroud over the IBC and closes the container with a corrugated top cap. The filled container is then forklifted to the shipping department where it is labeled and strapped to the pallet. Filled containers are stacked two or three high in a refrigerated area temporarily until ready for shipment.

How about dessert?

Shipping more than 5,000 gal of the fruit wines overseas without a hitch last year, Tomasello had an idea to use the IBCs for processing and freezing juice for what the winery calls cryoextracted dessert wines. This process involves harvesting the grapes when their sugar content is the highest and pressing and



The IBC is set up next to stainless-steel mixing tanks, and a 2-in. hose is connected from the tank to the liner's filling valve. A volumetric pump fills the IBC.

freezing the juice. As the juice thaws, the sweetest, most concentrated portion thaws first, and can be fermented to produce the finished dessert wine.

The IBCs play a vital role in this process, says Jack Tomasello: "We can reuse these containers a few times under different conditions. They're sturdy. We learned that a company is using SpaceKraft IBCs for shipping frozen shrimp, so we thought of using them to store frozen grape juice for a few weeks during our busiest harvest season. Then, when the workload lightens up, we can thaw, ferment and age the sweetest portion of the

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juice for dessert wine."

For many years, he says, the winery made a limited amount of dessert wine from white Riesling and Vidal grapes that it produced in its own freezer. "The demand for the dessert wine keeps growing steadily, and our freezer space is limited," Jack Tomasello adds. "But we're in the middle of fruit country, and there's a large commercial freezer plant less than twenty-five minutes away."

When Tomasello discussed the idea over with SpaceKraft and the technical people at Weyerhaeuser, they decided that Tomasello operators should leave roughly 20 percent empty space in the IBC liners to allow for expansion of the juice during freezing.

"Our harvest season starts the first week in September and runs through the second week in October," Jack Tomasello explains. "Usually, Vidal grapes are one of the last to be harvested. But the first week of last September, when their sugar content was highest, we harvested enough Vidal grapes to yield more than one-1,000 gallons of juice."

Crushing, pressing, filling

After the winery crushed and pressed the dessert wine grapes to remove the pulp and skin from the juice, operators set up five of the bulk containers next to the press. "Arrangements were made with the freezer plant and we had a truck at the loading dock [ready]," Jack Tomasello says. "The sooner the juice is frozen, the less chance there is for fermentation to start."

The crusher has a 1-in.-dia dispensing valve, so operators used the same sized dispensing hose to connect to the container liner's 2-in. filling valve and the container filled up with wine.

For the startup of the dessert wine juice "fill," Tomasello harvested, processed, filled and shipped five SpaceKraft IBCs in three hours. Each IBC contained roughly 210 gal of juice. The truck headed to the freezer

facility, and the containers were unloaded directly to a freezer when they arrived. The juice was quick-frozen to -20 deg F. According to Jack Tomasello, the juice stays chemically inert and fresh for an extended timeframe under these conditions.

The dessert wine experiment worked out well, says Jack Tomasello. "We picked up the frozen juice containers about a month later, brought them back to the winery to

thaw. After a day or so, we threaded a faucet into the containers' dispensing valves and pierced the liners with a special SpaceKraft tool to dispense the juice."

The winery produced nearly 500 gal of the wine from more than 1,000 gal of the juice. "I think we could get five or six seasons out of the IBCs and just buy new liners every year," Jack Tomasello sums up.

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