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Philly Craft Brewers Agree: Being Green is Part of the Culture!

Beer. A trade that was once as much of an art as it was a business, has turned into an industry. The passion and love that went into brewing which was once a given, has fallen victim to corporations whose only aim is to please its shareholders. Along with the loss of beer as a craft is the saddening reality that macro brewing companies use large amounts of energy with little regard for where that energy comes from.

However within the last twenty years, the beer industry has seen a renewed interest in the craftsmanship of beer as well as a wakeup call to the damaging effects of using such obscene amounts of energy. Craft breweries like Sierra Nevada of Chico, California and Samuel Adams of Boston, Massachusetts have been leaders in this revival of the trade, having founded their companies in the late 1980's. These pioneers have introduced beer drinkers to the endless possibilities of beer flavor, not just a mass produced, pale, bland, light adjunct lager which has been the dominant style of beer for decades. Along with the revival of taste, these companies are aware of the detrimental effects of utilizing large amounts of electricity derived from coal-fired power plants and are actively employing techniques to mitigate that.

As more and more are made aware of the sub-par ingredients used in macro beers (sometimes referred to as MillerBudCoors), and exposed to different variations, the movement grows and at the present shows no sign of slowing down. Still the craft beer segment only makes

up 8% of the industry market share. With lots of room to grow, the craft beer industry will continue to expand going into the future and the founders are making sustainability a priority.

Mentioned earlier, brewing beer is extremely energy intensive. In order to understand why breweries are so dependent on energy it is important to understand the process in which beer is made.

Brewing beer is easy; all it calls for is four ingredients. Water, a grain (usually malted barley), yeast and hops. The brewing process is as simple as the recipe list.

- Malted barley is soaked in hot water to create fermentable sugars. (Malting simply refers to a dried out grain).
- After the “mash” is made, it is boiled and hops are added for seasoning (hops are flowers and also contribute to aroma and act as a natural preservative).
- After the mash has boiled and cooled, yeast is added to begin fermentation.
- The yeast turns the sugar into alcohol and produces carbon dioxide as a byproduct.

Although the brewing process is relatively straightforward, it requires a lot of energy. “Mashing” or the process of mixing the malted barley in water requires heavy equipment as batches are often brewed in large quantities; these batches are not able to be stirred by hand. Victory Brewing located in Downingtown, PA is opening a new brewery in the upcoming year that will be able to brew in 200 barrels (bbl) or 6,200 gallon batches, effectively doubling their current production of 93,000 bbl’s per year and enabling production of about 200,000 bbl’s per

year. That may sound like a lot but compare that to the giant macro breweries like Anheuser-Busch who produce over 120 million bbl per year.

Finding ways to improve efficiency are not only in the best interest of the environment but also in the best interest of the company from an economic standpoint. Finding the cheapest, most sustainable form of energy is a way to save money and the environment.

Not surprisingly, a trend of sustainable practices has emerged and become sort of an “unspoken law” among the craft brewing movement. In fact, in 2010 Sierra Nevada was awarded the “Green Business of the Year” by the EPA.

Sierra Nevada owner, Ken Grossman said “Most of Sierra Nevada’s very early energy efficiency projects were driven by economics, but as our production grew, I started to pay more attention to the fact that we, like all breweries, are a large consumer of resources in the forms of gas, electricity, and water. In addition to my general sensibility about saving resources, we had the opportunity to save precious dollars as well.”

Companies founded more recently respect and adhere to this notion of sustainability. In short, being green has become the norm.

Sustainably Trends in the Greater Philadelphia Area

Earth Bread and Brewery – Philadelphia (Mt. Airy), PA

In Philadelphia, among the top cities in the nation for craft beer, being green is as popular as it is important. Peggy Zwerver, co-founder of Earth Bread and Brewery in Mt. Airy said “being green is just the right thing to do... being in the restaurant industry we (Peggy and Co-founder/husband Tom Baker) thought it was necessary to prove that a restaurant, an industry notorious for its environmentally unfriendly practices, could be responsible and not make a big footprint.” Earth Bread and Brewery is among a handful of breweries in the greater Philadelphia Area who are committed to respecting the environment. Earth Bread and Breweries main contribution to being green comes from their choice of vendors. Products ranging from cleaning solutions to toilets to light bulbs to straws and cups all come from handpicked companies that are devoted to being green. Earth Bread and breweries tables were recycled from Victory Brewing Company, located in Downingtown Pennsylvania and their chairs were bought at an auction. They also compost about 80% of their waste. From the initial construction to the day to day operations, Earth Bread and Brewery is committed to being green.

Victory Brewing Company – Downingtown, PA

Speaking of Victory Brewing, a company recognized nationwide for tasty beers including Hopdevil, Headwaters and Prima Pils has also adopted the idea of environmental responsibility, among the initiatives taken include implementing effective energy generation and conservation measures.

Madeline Rice, of Victory said that “Sustainability is an important issue and investment for both of the owners, Bill Covaleski and Ron Barchet. Many of the programs such as composting and recycling are cost neutral and in some cases more profitable than sending items to a landfill.”

As part of its sustainable efforts, Victory converted an abandoned Pepperidge Farm building into their current brewery, rather than knocking it down and building new. Victory also utilizes solar energy, having over 345 photovoltaic panels installed by SunPower Builders of Collegeville, PA. SunPower Builders installs residential and commercial solar photovoltaic systems for electricity generation. These solar panels produce approximately 82,000kWh electricity each year, although this number is small compared to the amount of electricity needed for brewing, every bit counts. Energy production and consumption can be seen on a monitor inside their restaurant. Beer enthusiast, Connor McGuckin said “Having the ability for customers like me to see energy output, easily displayed on a screen is a huge plus. It helps raise awareness to those unaware of the amount of energy breweries use.”

Victory also is aware of the amount of waste produced. Victory produces about 25,000 pounds of spent grain daily, which is then given to local farmers who used the grain as feed for their animals.

At their new brewery in Parkesburg, PA, Madeline said “skylights throughout the facility allow for minimal use of artificial lighting during daytime hours and are complemented by high efficiency light fixtures for when in need. Upgraded insulation throughout, including, in the

walls and roof, and around all piping and brew vessels help keep energy usage down, as does the state-of-the-art cooling systems for climate control and process chilling, which requires less than half the energy of standard systems.”

In February 2014, Victory was awarded the 2014 Sustainable Agriculture Business Leadership Award by the Pennsylvania Association for Sustainable Agriculture (PASA). Victory has proven that they are also committed to being environmentally friendly.

Yards Brewing Company – Philadelphia, PA

The first 100% wind-powered brewery in Pennsylvania, Yards Brewing Company, another well respected brewery, is conscious of its impact on the environment and has taken action to minimize it. Gina Vasoli of Yards directed me to their companies “extra yard” webpage and apologized for not having concrete numbers. “We are in the process of formulating a comprehensive annual sustainability report.” The report will provide the public with a greater understanding of their environmental practices. Like Victory, Yards also sends their spent grain to local farmers where it is used as livestock feed. Their cardboard packaging is certified by the Sustainable Forestry Initiative and their bar countertops are recycled bowling lanes.

Other Trends

Cans vs Bottles

Another trend developing in the craft beer industry is the migration from bottles to cans. Mobile canning companies have emerged in response to the shift and provide smaller companies without the capital to buy a bottling line, the ability to get their product out without having to spend tens of thousands of dollars on equipment. Round Guys Brewing Company, Located in Lansdale, Pennsylvania uses a mobile canning company.

John Genter, Manager at Exton Beverage located in Exton, PA said “cans are 100% recyclable and can be used over and over again. From a packaging standpoint, cans provide for a smaller footprint than glass bottles, and are lighter and easier to transport than bottles, lowering transportation emissions. Bottles also require paper labels. Not to mention cans provide the benefit of protection from light and oxygen.”

John later admittedly told me that the benefit of cans over bottles really is minimal and the greenest way to enjoy beer is to fill a reusable growler from your local brewery or buy a kegerator and purchase your beer by the keg.

Sustainability elsewhere in the country

On the west coast, sustainability is just as important, if not more important to brewers. Stone brewing company located in Escondido, California, also employs techniques similar to those discussed earlier including solar energy, composting, and taking advantage of spent grain. Stone also has electric car charging stations on site and has a water reclamation program that prevents large amounts of waste water from entering the sewer system. Other breweries like New Belgium Brewing Company from Fort Collins, CO, and Bells Brewing Company from Kalamazoo, MI also are renowned for their sustainable practices.

Conclusion

Beer is one of the many industries currently taking steps to minimize fossil fuel dependence. Similar to the beer industry, agriculture is a large user of energy. As agriculture became industrialized in the 1900's, the use of heavy machinery increased and with that came a dependence on fossil fuel, fertilizers, pesticides and large amounts of water. The sustainable agriculture movement has taken hold and local farms like Wyewood Farms in Honeybrook, PA and Pennypack Farms in Horsham, PA are great examples of local businesses aware of the depleting fossil fuels and the importance of sustainability headed into the future.

Whether it stem from economic motives or a sense of duty to protect the environment, a trend of sustainability has come upon the craft beer industry and is not going anywhere. If you stop and think about it, it makes sense. Why pay a fortune for electricity derived from fossil fuels

that are rapidly depleting, when you could install some solar panels or wind turbines on site and produce your own energy renewably? It makes sense and in the future as fossil fuels become more scarce, sustainable practices will become more and more frequent.

The craft beer industry is one of rich culture and appreciation for art which extends to an appreciation of the Earth, the one and only resource of all our great beer! Philadelphia is a leader in terms of cities with the most sustainable breweries, which is something to be very proud of.

Sources

Earth Bread and Brewery

Peggy Zwerver – Email: info@earthbreadbrewery.com

Victory Brewing Company

Madeline Rice – Email: madeliner@victorybeer.com

Yards Brewing Company

Gina Vasoli – Email: gvasoli@yardsbrewing.com

Exton Beverage

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Sierra Nevada

Ken Grossman

Quoted from book –

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