BREWERS GET ADVICE ON SUSTAINABLE PRACTICES IN MANUFACTURING CRAFT BEER.

Good beer requires good water, which is one of the reasons why the East Carolina University Center for Sustainable Energy and Environmental Engineering (CSEEE) helped put on the Sustainability in Manufacturing Craft Brewing Conference Tuesday in Uptown Greenville on June 18^{th} , 2019.

About 30 people attended the conference, which the CSEEE helped put on through a Pollution Prevention grant from the Environmental Protection Agency. The NCEast Alliance, N.C. Biotechnology Center and Greenville-Pitt County Convention and Visitors Bureau also participated in the event that was designed for current brewers, home brewers and those interested in opening a brewery in the future. The goal was to give those attending information on reducing the environmental footprint of their craft brewery businesses, of which one of the biggest byproducts is wastewater.

Uli Bennewitz, considered the father of North Carolina's craft brewery industry when he founded the Weeping Radish in 1986, said his business had three wastewater systems, something he did to adhere to regulations that he said were quite new at the time. "We seem to regulate instead of educate," Bennewitz said. "I worry we sometimes push the regulatory side of it like crazy." He encouraged craft brewers to cooperate with each other in the battle between sustainability and profitability. "We were hammered on fire codes," Bennewitz said. "We had to spend \$135,000. Very little was left to spend on other environmental things. We built from scratch and made every mistake in the book."

But Bennewitz set the stage for what was to come after helping push new legislation for the creation of the craft brewery industry that was designed to help tourism. The number of craft breweries in eastern North Carolina has grown from just six a decade ago to more than 34. There's more than 300 in the state, according to the N.C. Craft Brewers Guild. "What started out as that little tourism thing is now a \$1 billion industry," Bennewitz said. With such a growing industry, sustainable practices are needed, which is why organizers put on the conference.

Michael Regan, secretary of the N.C. Department of Environmental Quality, said craft brewers have been on the front lines pushing for improved water quality, knowing that clean water is a key ingredient to making good beer.



Michael Regan, Secretary of the NC Department of Environmental Quality speaks at the Sustainability in Manufacturing Craft Brewing Conference. ECU's Center for Sustainable Energy and Environmental Engineering helped organize this conference.

"You have been on water quality so much, you go above and beyond what we're asking for," Regan said. He called the brewers partners in helping create a better North Carolina. "We want to sustain jobs, sustain the economy and sustain the environment and make this an industry that is sustainable for years to come," Regan said.

Dr. Tarek Abdel-Salam, director of the CSEEE, told brewers that energy assessments were available through the Waste Reduction Partners. An audit would provide a summary of energy savings opportunities as well as financial resources available to help implement an energy saving plan.



Dr. Tarek Abdel-Salam, Director of the ECU Center for Sustainable Energy & Environmental Engineering (CSE3) offers insight into sustainable practices at the conference

"We have a team of well-experienced engineers that will recognize your energy consumption," he said. John Chaffee, CEO of the NCEast Alliance, said craft brewers have helped lead city revitalization efforts in small and medium-sized towns. He said brewers have helped bring in restaurants and other businesses to breathe life into once struggling areas, creating jobs and adding to the quality of life. "And, we like that part," Chaffee said.

Bennewitz said craft breweries have come along during a time in which people are craving local products and services. He said the sustainable steps he has done in his business weren't about him but about the future generation, which he said has true passion to carry on the industry. "We need to look at the long term," Bennewitz said. "It's not going to benefit me. It's going to benefit the next generation."

For more information on ECU's Center for Sustainable Energy and Environmental Engineering, go online to www.ecu.edu/cs-cet/sustainability/.

For more information about the event, go online to http://blog.ecu.edu/sites/cet/2019/06/18/brewers-get-advice-on-sustainability/

The event was also featured on the news channel WITN. To access the news item, please visit the following website: https://www.witn.com/content/news/East-Carolina-beer-industry-discusses-sustainability-in-manufacturing-511484392