PRECISION FERMENTATION®

Hudson North Cider Company

BACKGROUND

The team at Hudson North Cider Company takes a classic approach to cider making. With a commitment to sourcing apples from local growers in NY and a mission to preserve Hudson Valley trails and beyond, Hudson North produces a mix of ciders based around a standard fermentation that is the core of production. As the Quality Assurance Manager, Brian Fairfield oversees the tracking of production and ensures the sensory results of the finished products.

PRODUCTION AND SENSORY CONCERNS

With production space limited, this core cider has been hitting the limit of production capacity at around 80,000 gallons of cider a year while also exhibiting subtly inconsistent sensory qualities between batches. Brian and the team at Hudson North found the last 25% of attenuation sluggish, taking as many as 5-7 days to reach terminal gravity. To address this, they used common wisdom to inform the timing of nutrient additions. These were made to help manage yeast health with two goals: to speed overall production time, and to avoid the formation of sulfur and other off-flavor compounds that form during fermentation. With each batch of apples being different, each fermentation had unique reactions, giving varied results. This is no small problem for Brian, since “at 7,000 gallons per batch, every batch is a big deal!” Once they received the BrewIQ, Brian started attaching it to every fermentation he could to collect data and assess.

ADJUST PROCESS

After monitoring multiple fermentations with real-time data from the seven metrics tracked by BrewIQ, Brian noticed changes in a new metric the team hadn't previously considered: conductivity. While gravity had typically been the measurement used to track and time nutrient additions, the team found they were able to see changes in nutrient levels – additions as well as absorption by the yeast over time – reflected in the continuous tracking of conductivity. Because of the variability of the sugar and natural nutrient in the juice from one batch to the next, nutrients were consumed at different rates without the Hudson North team being able to track these rates by gravity alone. By employing the BrewIQ system, Brian and the team can time nutrient additions based on threshold levels reflected in conductivity.

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>
> *— Brian Fairfield, Quality Assurance Manager*

RESULTS

Since implementing this new process, Brian stated that Hudson North is saving anywhere from 4 days to a week of tank time for each fermentation, allowing the total time in the tank to shrink from an average of 18 days to an average of 10 days. "Before, we probably were only able to push out 7,000 gallons per month, max. Now, we're able to double that." But they aren't just saving time, their product is more consistent, making quality control easier. The added impact of adjusting nutrient timing has been avoiding the formation of off-flavors altogether, allowing for additional time savings during conditioning with better sensory outcomes overall. "In my opinion, every single batch we're making is a better product," says Brian.