One of my cousins has been a bartender for long enough that at family gatherings our relatives have stopped asking when she's going back to nursing school. She never did seem that interested in the medical profession. Works for me. While I might ask someone else for help if I needed the Heimlich maneuver, I'd unhesitatingly go to this cousin for advice on cocktails. Seeking to better her knowledge of her chosen profession, she's a regular on the craft distillery tour circuit. She'll even plan trips to far-flung cities to get a taste of the gins, whiskeys, rums, piscos, baijiu's, and sometimes moonshine!

She and I both like gin, and lacking any true knowledge of the subject on my own, I follow her advice on gin brands unfailingly. This last Thanksgiving, she surprised me by changing course, telling me to avoid a gin we'd been drinking together for years. "They're no good anymore," she said. "It's been coming out cloudy." As always, I took her advice.

Customers expect crystal clear, water white gin. Image Credit: Flickr User **Graeme Maclean** (CC BY 2.0)

Gin Manufacturers Depend on Color Quality Control to Ensure Brand Consistency

Brand consistency is important for gin manufacturers. Distilleries distinguish themselves by their proprietary mix of botanicals[1] and distillation process. So when a distillery accidentally deviates from its formula, it loses the essential essence of its brand. This can happen through variation in raw materials, such as botanicals or neutral spirits. Botanicals can vary widely[2], with different suppliers, crop year, or batch. Cloudiness can occur in distilled spirits[3] from imperfectly filtered water, fusel oils, or the use of activated carbon filters. As long as these differences are noticeable to consumers, they have the potential to cost a company business.

Companies who produce inconsistent gin stand to lose sales. Customers who've developed a loyalty to that particular gin blend will be disappointed and may consider trying a different company's product. Similarly, new customers who notice unexpected colors or cloudiness may not even give that gin a chance. Either way, gin companies are losing more than a single sale when QA is not bulletproof. According to Gin Foundry's 2016 survey[4] 62% of customers expect to always be asked what type of gin they'd like in their cocktail at the bar. In addition, 56% of customers always ask for a particular brand of gin when ordering gin and tonic. Both of these numbers rose from 2015's survey. These numbers are strong indications that customers buy gin based on established preferences. Alcohol purchases can be reflexive, the result of habit, and so customers who choose a different brand may stick with that brand for life.

Transmission Spectrophotometers Objectively Assess the Color of Gin

For these reasons, color and haze quality control is essential for gin manufacturers. That's why manufacturers employ transmission spectrophotometers and haze measurement instruments to detect any deficiencies before any batch is bottled and shipped. These instruments objectively assess the color and haze of transparent liquids, like gin.

Quality control is as essential for small craft distilleries as for large manufacturers. Image Credit: Flickr User **Brandon O'Connor**(CC BY 2.0)

Simple Instruments Allow Easy Workflow Integration

While it may seem complicated, in practice the operation of these instruments is simple. The first step is calibration. Every eight hours, the instrument is calibrated, to ensure measurement accuracy. In modern machines, like HunterLab's Vista, calibration is accomplished with a single touch of a button.

Once calibrated, technicians select the standard they wish to measure samples against. For a company that only makes one product—gin—there will only be one standard to choose from. Companies distilling **more than one liquor** can choose from a number of standards saved in the instrument's memory.

From there, technicians place a sample of gin in the instrument's sample compartment. The instrument measures the sample and displays the results as compared to the selected standard on its screen. If the sample's results are within the company's tolerance, it passes the test. All of this takes about three seconds.

With earlier instruments, these steps would need to be repeated twice: once to measure color with the transmission spectrophotometer, and again to measure haze with a separate instrument. However, as both measurements can be assessed using the same principles, it isn't necessary to perform them with two separate instruments. HunterLab's Vista can measure both color and haze simultaneously. This saves distillers time and frees up benchtop space in their quality control labs.

The ease of use, small footprint, and cost-efficiency of HunterLab's Vista makes it an ideal choice for gin manufacturers looking to improve their quality assurance processes. To learn more about how Vista can help keep your gin clear and on-color, contact our friendly, knowledgeable sales professionals today.

1. "The Production of Gin," 2017, **http://www.ginvodka.org/history/ginProduction.asp**
2. "A day in the life of a quality control officer," 2015, **https://talesofthecocktail.com/in-depth/day-life-quality-control-officer**
3. "Cloudy Spirit," 2015, **http://homedistiller.org/distill/dtw/cloudy**