

# The LCBO Lab proves there is safety in numbers



The LCBO Lab tests 25,000 samples each year from more than 80 countries for label accuracy, sugar, alcohol and caffeine content, contaminants, such as carcinogenic ethyl carbamate, and allergens like sulphites.

Thousands of products tested every year protect customers

Ontario's Liquor Control Board of Ontario (LCBO) is one of the world's largest buyers of wine, beer and spirits. Although "beverage alcohol" (the industry term for everything from big-brand vodka to local products), specifically wine and beer, is also sold in grocery stores, the LCBO remains a provincially run one-stop shop for a curated collection of more than 28,000 products. And with that, comes clout – and enormous responsibility.

Enter The LCBO Lab. The LCBO's state-of-the-art quality-assurance testing facility – including a team of more than a dozen chemists, sensory testers and lab technicians; impressive-looking testing instruments and a large library of samples – is headed by Dorina Brasoveanu, Director of Quality Assurance. LCBO President and Chief Executive Officer George Soleas is a Lab alum, having been instrumental in the growth and innovation of The Lab during his roles as Director and Vice-President of Quality Assurance, and Senior Vice-President of Logistics & Quality Assurance.

## RIGOROUS TESTING

As with many LCBO departments, The LCBO Lab is nestled in the organization's Head Office, a building near Toronto's waterfront. It's the site of rigorous tests – more than 600,000 a year on at least 25,000 product samples from 80-plus countries – for label accuracy, sugar levels, alcohol and caffeine content, contaminants such as carcinogenic ethyl carbamate, and allergens like sulphites. Brasoveanu explains, "The team ensures the products we offer for sale are safe to consume, comply with federal and provincial regulations and meet the LCBO's requirements for composition, packaging and labelling."

In fact, The LCBO Lab is an industry benchmark used by other Canadian liquor jurisdictions and beverage-alcohol producers. That means that when the LCBO approves a product



Donna Brasoveanu, the LCBO's Director of Quality Assurance.

for sale – meaning it meets Health Canada's regulatory standards – other retailers know they, too, can confidently sell the product.

## ANALYTICAL INSTRUMENTS

Ultimately, LCBO consumers are protected under the brand's Safe & Informed Consumption mandate. "The Lab operates under a quality management system that is ISO 17025 accredited and ISO 9001 registered," Brasoveanu says. "This ensures that the analytical results produced by our laboratory are accurate, reliable and can be used internationally."

The Lab is divided into several stations that each test for different components. Technicians use electric bottle openers that would be the envy of any enthusiast to stage dozens to hundreds of wines for testing at a time; there tend to be fewer beers, spirits and ready-to-drink (RTD) products, and The Lab teams use different machines for each.

Next, test tubes are filled and loaded into one of 25 analytical instruments, and chemists run tests to determine alcohol concentration (to check if the actual content matches what appears on the label and that it doesn't exceed applicable limits); contaminants, whether naturally occurring or introduced through the manufacturing process; additives, such as sulphites, synthetic dyes and artificial sweeteners; consistency, including testing for wine faults (oxidization, corked wine, fizz from

secondary fermentation, light or heat damage) and, ultimately, label accuracy.

Quality assurance is about more than the safety of a product, however. "Our experts also equip Ontarians with the knowledge they need to make positive drinking choices for their health and well-being," says Brasoveanu. "And a large part of that involves ingredients that are watchouts for many consumers: sugar and caffeine."

"Sugar levels don't always correlate with the sweetness perception," she adds. "The LCBO Lab developed The Sweetness Algorithm based on measured residual sugar and acidity levels in wine. This algorithm allows us to describe the level of perceived sweetness – the taste sensation that consumers will encounter when tasting a wine."

## SWEETNESS INDICATOR

After testing, The Lab assigns each wine a sweetness indicator – found on shelf tags under products and in online descriptions.

For example, a wine with 12 g/L of residual sugar and a low acidity would be considered Dry, she explains, whereas the same wine with 12 g/L residual sugar and a higher acidity would be considered Extra Dry.

When it comes to caffeine, many consumers are unaware that high levels of stimulant can mask the effects of alcohol, making the person



The team at The Lab includes chemists, sensory testers and lab technicians.

## TESTING BY THE NUMBERS

**\$3.5-billion** worth of products sold annually

**621,939** tests the LCBO Lab ran in 2020

**30** tests performed on wine products

**25,338** products tested in 2020 by the LCBO Lab

**25** tests performed on beer products

feel more alert and increasing the risk of overconsumption. That's why The Lab tests products to make sure they contain a maximum of 30 mg of caffeine per serving.

So, what happens when levels are too high, or when The Lab finds contaminants? "In these instances," says Brasoveanu, "the product is denied for sale, and we work with the supplier on options to address the findings and ensure that the product can be reformulated or corrected to meet regulatory requirements."

That's good news for consumers

buying beer and wine in Ontario grocery stores. The LCBO Lab is also responsible for quality assurance at these points of sale. It's all part of the organization's Spirit of Sustainability social-impact platform, of which The Lab plays a major part. The LCBO's website outlines its commitment to safe and informed consumption, part of its Good People pillar. Through its packaging reviews and influence on industry standards, The LCBO Lab also contributes to the platforms Good Planet and Good Partnerships pillars.