

## **The Green Organic Dutchman and Caliper Foods Report Positive Results from Pharmacokinetic Study of Proprietary Water-Soluble Cannabinoid Technology**

- Study compared Caliper Foods' proprietary, patent-pending water-soluble cannabinoid technology, Caliper CBD, with CBD in a carrier oil
- Observed total bioavailability of Caliper water-soluble CBD was 4.5 times greater than CBD in a carrier oil
- Higher cannabinoid absorption was observed for Caliper CBD within 15 minutes compared to the maximum absorption of CBD in oil in 45 minutes.

**Toronto, ON and Denver, CO, September 9, 2019** – The Green Organic Dutchman Holdings Ltd. (**the “Company” or “TGOD”**) (**TSX:TGOD**) (**US:TGODF**), a leading producer of premium certified organic cannabis, and Caliper Foods (formerly Stillwater Foods), a best-in-class provider of water-soluble cannabinoid products, are pleased to unveil the results of a preliminary human pharmacokinetic (“**PK**”) study of Caliper CBD, Caliper Foods' proprietary tasteless and odourless water-soluble powder that can be added to almost any food or beverage.

TGOD intends to commercialize organic cannabinoid dissolvables in Canada beginning in December 2019 under the TGOD-Infusers line of premium cannabis products. The Company has already developed novel fast-acting formulations leveraging this technology with its lineup of organic teas, shots, chewables, and ready-to-drink beverages. In the US, Caliper Foods plans to release Caliper CBD, its own line of precision-dosed CBD dissolvables, this fall.

For this study, half of the participants were administered 30mg of Caliper Foods' water-soluble CBD powder in 8oz of water while the other half received 30mg of CBD dispersed in MCT oil. Blood samples were drawn at pre-determined times over six hours. Early data shows that the group that received Caliper CBD demonstrated faster onset within 15 minutes, with higher concentrations achieved at 15 minutes compared to the maximum concentration achieved at 45 min with the CBD in oil formulation, and a 4.5-fold higher observed total bioavailability. The CBD was largely eliminated from the body after about 6 hours for both Caliper CBD and CBD oil subjects, and a more rapid reduction was observed with the Caliper CBD subjects after 45 minutes.

Following this promising initial study, TGOD and Caliper Foods will shortly conduct a confirmatory Clinical Phase 1A PK study that will test the Caliper CBD technology formulated into TGOD's planned portfolio of products including beverages, teas, Infusers, and capsules. The study will be conducted in collaboration with a leading US academic institution.

“We are delighted with these PK results as they confirm the enhanced bioavailability and consistent absorption rates of our proprietary ingredient technology, which can infuse both CBD and THC. This study confirms that consumers absorb 4.5 times more CBD with Caliper CBD than with CBD in MCT oil,” commented Keith Woelfel, Director of R&D at Caliper Foods. “Our R&D team is working closely with TGOD on the next phase of the clinical study, which, if it confirms the PK results in additional product forms, will make Caliper Foods' and TGOD's product suites highly differentiated in terms of substantiated quality.”

“We are thrilled with the results of this preliminary PK study which demonstrate the consistency and precision of Caliper Foods’ proven proprietary technology which is already available in Colorado and which TGOD will commercialize in Canada. Based on this early data, Caliper CBD provides a higher and faster absorption level when compared with CBD-infused oil, which opens a number of possibilities for both the medical and adult-use markets. Patients and consumers are increasingly informed and savvy, and we plan to seize on the market demand for organic CBD and THC-infused products backed by data-driven science and clinical evidence,” commented Dr. Rav Kumar, Chief Science Officer of TGOD. “We are enthusiastically awaiting our Clinical Phase 1A PK results in time for Cannabis 2.0 in Canada.”

Caliper Foods’ technology consists of a suite of zero-calorie, fast-acting, water-soluble solutions that can simply and easily infuse cannabinoids into beverages, food, and other consumer goods. It is formulated to quickly absorb into the bloodstream with a predictable onset and offset, allowing these products to offer a consistent, controlled, and safe experience. While cannabinoids are naturally fat-soluble and tend to have a bitter taste, Caliper Foods’ ingredient technology eliminates the need for fat molecules to speed absorption or added sugar to mask the bitterness. As a result, it enables healthier, better-tasting products with no additional fat, sugar, or artificial flavours.

TGOD has an exclusive agreement with Caliper Foods to license the Caliper CBD’s ingredient technology, as well as other proprietary beverage and food technologies and formulations related to cannabinoid-infused consumer packaged goods within Canada and distribute to certain international jurisdictions outside of the United States.

#### **About The Green Organic Dutchman Holdings Ltd.**

The Green Organic Dutchman Holdings Ltd. (TSX: TGOD) (US: TGODF) is a publicly traded, premium global organic cannabis company, with operations focused on medical cannabis markets in Canada, Europe, the Caribbean and Latin America, as well as the Canadian adult-use market. TGOD also has organic hemp CBD oil operations in Canada, and through its wholly owned subsidiary HemPoland distributes premium hemp CBD oil in the EU. The Company grows high quality, certified organic cannabis with sustainable, all-natural principles. TGOD's products are laboratory tested to ensure patients have access to a standardized, safe and consistent product. TGOD has a planned capacity of 219,000 kgs and is building 1,643,600 sq. ft. of cultivation and processing facilities across Ontario, Quebec, Jamaica and Denmark.

TGOD's Common Shares and warrants issued under the indenture dated November 1, 2017 trade on the TSX under the symbol "TGOD" and "TGOD.WT", respectively.

For more information on The Green Organic Dutchman Holdings Ltd., please visit [www.tgod.ca](http://www.tgod.ca).

#### **About Caliper Foods**

Caliper Foods is a functional foods company specializing in the processing, manufacturing, and distribution of soluble cannabinoid-infused consumer packaged goods and ingredients. The company’s business-to-consumer arm (Caliper Consumer Goods) produces and sells its own line of dissolvable, hemp-derived CBD-infused products. Its initial CBD product, Caliper CBD, will be launching nationwide in the Fall of 2019. The company’s business-to-business arm (Caliper Commercial Ingredients), produces a proprietary suite of

application-specific formulations of water-soluble hemp-derived CBD that meet the quality control and documentation needs of experienced CPG experts. The company also has a relationship with Stillwater Brands, maker of some of Colorado's leading THC- and CBD-infused edibles brands, including Ripple dissolvable cannabinoids, Stillwater Gummy Supplements, and Stillwater Teas & Coffee.

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