

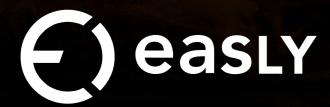


From Costly Waste to Sweet, Sweet Revenue

Province Brands Strategically Advanced Its SR&ED Refund to Bolster R&D and Accelerate Production

The company's founders saw the waste management issue propagating in the burgeoning cannabis industry and decided to do something about it >> Make beer.

While pursuing that frothy goal, they discovered that the technology they developed opened up a whole new revenue stream - and the outcome is sweet.



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Extracting Revenue

We're trying to do something for the first time, and that's not easy or for the faint of heart. To have support to try something new and hopefully benefit the economy is really great."

> Caitlin Krapf, VP of HR & Organizational Development, Province Brands Inc.

What to Do about Waste

In the fall of 2018, recreational cannabis became legal in Canada, and with it, a massive industry was born. Canadians spent more than \$2.6B on cannabis in 2020 - that's a lot of plants. Supporting this consumption requires massive facilities growing row upon row of Cannabis plants. These plants are harvested for their buds, leaving behind the rest of the plant biomass as a particularly costly waste to dispose of. "The stocks, the stems, the roots, the leaves - Cannabis producers can't just throw that waste into a dumpster out back or an incinerator. It needs to be disposed of under very specific regulations and can be very expensive," explains Travis Dafoe, Lead Brewing Engineer at Province Brands Inc..

beverage consumption. "We have to optimize the process and use the right enzymes to get just the right product to be approved by Health Canada and the Canadian Food Inspection Agency," says Sachin.

"There were so many questions that we could not find answers to. We had to develop the process and find the solutions ourselves through research. If there is no challenge, then it's not research."

Sachin Arora, Bioprocess Scientist, Province Brands Inc.

A New Kind of Brew

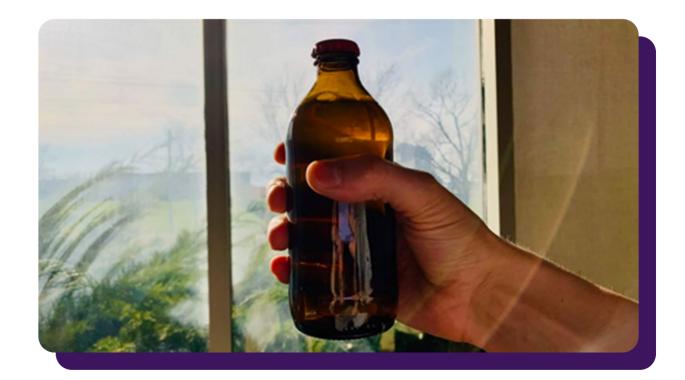
Once processed, the discarded cannabis biomass becomes an extract with unique characteristics that create a surprisingly refreshing, gluten-free beer. "The most unique thing about our Hemp Ale is that it tastes and feels like a light beer, but it has no gluten in it," Travis explains, "our extract can be used instead of pretty much all starch-based sugars usually used in brewing which inherently have gluten." The company has proven the concept of making a delicious beer from waste biomass, but along the way, they found that their extraction technology could be used for more than brewing beer. "We've produced a really good beer, and we've gotten really good feedback from people who've tasted it, but as we developed the necessary technology, we found that there are so many more applications outside of beer," says Travis.

"From day one, the company progressed with the idea of monetizing that expensive waste stream and creating the first-ever beer from cannabis."

Travis Dafoe, Lead Brewing Engineer, Province Brands Inc.

Start With a Biomass

So how does one create beer from discarded cannabis plants? According to Sachin Arora, Bioprocess Scientist at the company, "You start with a biomass; It's a chain of glucose and a chain of five-carbon sugar xylose and some other polymeric sugars. You need to break this chain down, but it's a delicate process." The extract that the company derives from the biomass needs to meet certain standards to be used in food and



Province Brands Inc.'s Hemp Ale



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Investment in R&D Brings New Opportunity

The company discovered that it could tweak processes to develop extracts with different characteristics. After creating an extract for brewing beer, the researchers at the company began experimenting with making extracts for other uses. "We've developed a process and are fine-tuning and tweaking it to find more applications for our sugar extracts," says Sachin, "as one of the applications, our sugar extract has been converted to a sugar syrup that is an alternative sweetener with a lower glycemic index than glucose." In 2020 the global market size for alternative sweeteners was \$8B CAD, and it's estimated to increase to \$11.8B by 2027, driven by consumer demand and regulatory motivators like sugar taxes. Caitlin Krapf, the VP of HR and Organizational Development at the company, sees the alternative sweetener market as a big revenue driver for the company. "There's a lot of excitement around alternative sweeteners as many companies don't want to use white sugar in their products. We see ourselves falling in with other sugar alternatives like honey or stevia," says Caitlin.



traditional waste streams from other companies and making sugar extracts from them." The company is working with Easly to advance its SR&ED refund and secure the capital needed to fine-tune its processes and accelerate production. "The funding we received from Easly supported a lot of our research in the first half of the year (2021). Everything from acquiring biomass for experiments to purchasing lab supplies and testing," says Caitlin, "it freed up funds so we could focus on getting our product to market."

"We wanted an option that would make things more reliable so that we could count on funds coming in when expected. Easly does just that for us."

Caitlin Krapf, VP of HR and Organizational Development, Province Brands Inc.

Success is Sweet

Province Brands's R&D led the company to broader markets for its extracts. Dedicating resources to developing new processes and technologies is not always easy, but the pay-off can be sweet. "Our company is 100% based on R&D. I think that's what brought most people to the company and got them excited about it," says Caitlin, "We're trying to do something for the first time, and that's not easy or for the faint of heart. It's incredibly exciting but also incredibly difficult. Having support to do something new and hopefully benefit the economy is really great." Financial support for R&D helps alleviate some of the risks involved in exploring uncharted territory. Easly provides that support in a way that's reliable and easy.

Province Brands Inc.'s Sugar Extracts

Accelerating Monetization with Easly

There's still work to be done to perfect processes, but the company is pushing forward and building its production facility to get products to market at scale. "The main focus right now is to continue optimizing our production through research and getting ready to build our production facility," Caitlin explains, "with our new facility, we will first be processing hemp and turning it into our unique sugar product. Then we will focus on taking more "Working with Easly was totally streamlined. What was needed was clear and wasn't onerous to get it was all things that we had on hand."

Caitlin Krapf, VP of HR and Organizational Development, Province Brands Inc.

Does your company receive an SR&ED refund or other Government receivables? Speak with a member of the Easly team and find out how you can accelerate your growth with non-dilutive capital. Get Started for free online and begin receiving funds in as little as two weeks. Join the growing number of innovative Canadian companies that trust Easly as a long-term partner for reliable capital.



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