

Non-Toxic High Flow CO₂ Extraction and Distillation System for Botanicals used in Nutraceuticals, Perfumes, Biofuels and the Cannabis Industry



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Interview conducted by:
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CEOCFO: *Ms. Braddock, what is the concept behind Eden Labs, LLC?*

Ms. Braddock: The exploration of botanical extraction in producing healthy products for human consumption through the development of methodologies and equipment for concentration, extraction and distillation technology.

CEOCFO: *How long has Eden been around? Where are the challenges? What have you developed?*

Ms. Braddock: The genesis and growth of Eden Labs began in the early 1990's and was based on challenges and research into the following: the use of medicinal herbs, bio-fuels, environmental remediation, the rise in demand for healthy food production (organic farming), nutraceuticals, aromatherapy (Terpenes or light essential oils), Hemp, Cannabis etc. The challenges have been "opportunities". Every CEO thinks that right? Ha Ha. Seriously though, they *are* opportunities because these are all social health issues that are politicized. What we develop are healthy protocols and equipment to solve these problems while promoting the underlying social issues. We do this by providing the expertise and tools needed by companies in these fields to prosper. When these businesses succeed, modern business practice flourishes. It isn't always easy, but it is very rewarding to know you are helping to create industry based on responsible and non-toxic solutions. Biggest challenge...changing old school business models based on quantity or price over quality and value.

"Today we are an internationally recognized company that offers systems from bench top R&D, pilot plants and industrial systems. We have worked hard for and enjoy a reputation for creating reliable systems with exceptional customer experience."- AC Braddock

CEOCFO: *Would you tell us about CO₂ extraction? How does it work?*

Ms. Braddock: CO₂ is all around you right now. You are breathing it out. When condensed, and put under pressure it becomes a wonderful, clean solvent. The unique thing about CO₂ is its "tunability". Meaning you can change the temperature and pressure to drop out particular constituents in the material you are extracting. Therefore, it is highly desirable for those who are concerned about creating IP in product development that is non-toxic.

CEOCFO: *Looking at your site there is Coldfinger™ distillation and there is vacuum distillation. When and how do you use different methods? How do you decide what method is right for what type of product?*

Ms. Braddock: The distillation systems actually do five different processes. You can do a steam distillation, an ethanol extraction, create alcohol, recover alcohol from an extraction, and use a Coldfinger as a stirred reactor. When you are

trying to distill a light essential oil, you would use the system with steam under vacuum, which drops the temperature so that the product would be undamaged by heat.

CEOCFO: *Are there competing processes for the one you have developed or are you competing against the old versions?*

Ms. Braddock: When the company was founded in the mid 1990s, there were only a handful of Supercritical CO₂ companies in the U.S. and those companies were primarily in the oil and gas fields or decaffeination. They were all large industrial plants and there were no systems for small scale commercial use. Eden provided these smaller systems which allowed small to medium sized business to create their own sustainable extraction methodologies. To date, while we have had other extraction system companies come into the SCFE market, we are still leading the technology and can also now scale our clients to industrial size systems up to 6000Ls.

CEOCFO: *What is the status of Eden Labs today?*

Ms. Braddock: We have been developing these systems for 22 years. Therefore, today we make very sophisticated, efficient and reliable systems. The founder of the company wanted to make this process much more accessible which he has accomplished and this clean technology is growing exponentially. Today we are an internationally recognized company that offers systems from bench top R&D, pilot plants and industrial systems. We have worked hard for and enjoy a reputation for creating reliable systems with exceptional customer experience.

CEOCFO: *What are the various industries that should know about Eden Labs? Is there still education needed?*

Ms. Braddock: Every industry that produces human consumables should be aware of this technology. So much education needs to occur! I spend the majority of my time doing just that. I was at thirty different events and speaking engagements last year alone trying to educate people on why they should be paying attention to how their consumables are processed. I was encouraged, not long ago, when I saw an article in Paleo Magazine describing how healthy cooking oils are processed. People are beginning to become aware, but we still have so far to go.

CEOCFO: *Is there an aha moment when you are making a presentation or talking to a group, when people start shaking their heads and saying, "Yes, that makes sense," or does it really depend on the industry?*

Ms. Braddock: It does depend on the industry, but I would say that generally there are "aha" moments where they say, "Wow, I never thought about how that was made" or "I did not know how much of our food was processed with hexane". Every time you open your refrigerator you are going to get wafts of hexane because it is off gassing from your ketchup, mustard and your cooking oils and various other consumables. Just to have people say, "Oh, I never thought about how that was made or where it came from" is an "aha" moment.

CEOCFO: *How have we missed it for so long in this country?*

Ms. Braddock: We have many challenges here in this country, do we not? I think the general market push for quantity over quality is the root of this problem.

CEOCFO: *Do you get a sense of how it has been missed and why now might be the time when people will pay attention?*

Ms. Braddock: I think that things always boil down to lobbying groups for industries. Our legislators should start paying attention to people and small and medium sized business. Many of the industries we deal with are fairly new and growing exponentially, but they are currently being marginalized by existing dominant and competing industry. These legislators are missing the momentum of the growing wave of modern business models and missions. There is a growing segment of the market who really want to know where their food was grown, how it was produced and how far away it has to travel. There is a sizable wave in the demand for organic and sustainable products. Take the use of pesticides for instance. The levels of pesticides on strawberries and spinach alone are often off the charts! There is an "aha" moment I get frequently! People *like* to think they are eating something healthy. They should be *confident* they are eating something healthy. Sustainable methodologies exist, we simply have to keep demanding them.

CEOCFO: *How do you help a company decide which piece of equipment is right for them or once you know what they want to do and what the end result is they want is it clear what they should choose?*

Ms. Braddock: Often we will have companies come to us and they have the process to create a product already accomplished. However, we often help create the methodology for the product and the equipment needed to produce it. For instance, we will have a company say "We want to extract chrysanthemum flowers and create Pyrethrum to make a natural insecticide. We think we know how to do it, but we are not sure." We help create the process development on

systems we engineer, then we say, "Alright, this is the protocol, this is the system we used and here is how to scale it for production".

CEOCFO: *What type of maintenance needs to be done for this equipment or is it a fairly standard, keep clean process?*

Ms. Braddock: Both CO2 and ethanol, for instance, are disinfectants. Therefore, for the CO2 system all you have to do is run CO2 and a little ethanol through it. It is actually pretty simple.

CEOCFO: *Where are you seeing the most traction? What industries are waking up right now?*

Ms. Braddock: Nutraceuticals, food, hemp and there has been tremendous traction in the cannabis industry.

CEOCFO: *Let us take cannabis. There is so much noise. Everybody everywhere is coming out with something related. How do you get the attention in that space? How do you get traction there?*

Ms. Braddock: The company was founded on ethanol extraction in the early 90's and we were the only Supercritical CO2 systems available on a small scale or commercial scale until 2012. Obviously, pure extraction methods are critical for the development of this market. Word of mouth advocacy over many years has established Eden Labs as an industry leader and innovator for extraction technology in the Cannabis industry.

CEOCFO: *What has changed in your approach over time either in equipment or how you are approaching different industry or how the business is changing? What have you learned as you have been working in this arena?*

Ms. Braddock: Not having any competition for almost ten years and then suddenly having a dozen other extraction companies is an interesting place to be. We are very happy and very proud of the fact that we have created this momentum. On the other hand, we also have created our own competition. At that point we had to say, "Alright, it is pointless to fight it, because we helped create it." Therefore, what we want to do as a company is do what we have always done. Innovate. We strive to be the best and continue to be ahead of the curve to help businesses and industry grow. That is who we are, it is what we always were and that is what we have decided to maintain.

CEOCFO: *How is business at Eden Labs today?*

Ms. Braddock: Business is good! There are multiple different industries that are growing exponentially by having access to this technology. Our reputation is established, the systems are known for their reliability and efficiencies. It is not an explosive growth, but Eden Labs year-over-year growth is enviable.

CEOCFO: *How do you decide where to focus when there are so many possibilities? It sounds like you are trying to hit all of them, but is there a pecking order for you?*

Ms. Braddock: We do have to narrow the field of opportunities simply due to our marketing budget and production capacities, so we focus on those industries that are closest to our mission as a CSR company or those industries that are closest to producing human consumables for health and wellbeing.

CEOCFO: *Why pay attention to Eden Labs, LLC? Why pay attention to Hi-Flo CO2 extraction?*

Ms. Braddock: It has become obvious in the last few years that there is a plethora of companies that hold strong to their mission in social responsibility. We lead with these principles and message them to the business with whom we work to help build responsible industry. In addition, we strongly support the growing influence of women in business and women business owners, social issues, our environment and giving back. If you research the companies that concern themselves with CSR principles, you will see that they create loyalty, quality and sustain their own businesses by taking the high road. Consumers care and so do we.

