



THE CANNABIS CONSERVANCY

Stewardship • Education • Certification

About our Business

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Summary

Our Mission

The Cannabis Conservancy's mission is to empower and assure that the regulated Cannabis industry achieves environmental, economic, and social sustainability.

About TCC

The Cannabis Conservancy (TCC) is an LLC that provides third-party certification for legal, environmentally sustainable Cannabis. The certification criteria are the TCC Standards, a list of norms and regulations created specifically by TCC to encompass a variety of environmental aspects throughout the growth, harvest, and sale of Cannabis and its ancillary products. Our standards and certification are backed by a robust Quality Management System (QMS) and are aligned with an array of domestic and international standards. TCC has offices in Colorado, California, Massachusetts, New York, and British Columbia.

Raison D'être

As the Cannabis Industry continues to grow across North America and the world, there is an urgent need for a framework that educates, identifies, and verifies that the Cannabis being grown and consumed is healthy for people and the environment. We are the only company with the knowledge, expertise, and platform to ensure the Cannabis industry becomes a global leader in sustainability. Patients and consumers, as well as state and local governments, have begun to demand more information about Cannabis production. We are uniquely positioned to capitalize on this burgeoning trend and have developed our certification to go above and beyond any current and future regulations.

As the price of Cannabis continues to decrease, the traditional way of growing will no longer be tenable. Our Certifying Standards give the growing community the tools they need to measure and monitor their resource use and increase their growing efficiency. This will lower operating costs and create a consistent and higher quality product. Additionally, our unique Grower Manual will become the industry roadmap that instructs cultivators on how to mitigate risk, build their brand, craft an exit strategy, differentiate themselves in the market, and command a premium price for their product.

Due to its national categorization as a Schedule I drug, it has been nearly impossible to conduct research on Cannabis production. Part of TCC's goal is to remedy this lack of data by conducting research and publishing scientific papers on our findings. To this end, TCC recently won a bid with the Colorado Energy Office to study the impact of Cannabis on energy in Colorado; we are currently beginning our research and will complete our report this fall.

TCC Difference

While there are a few other certifications in the market who provide certification services, these organizations focus almost exclusively on "organic", pesticide-free certifications which, due to changing regulations, are becoming a regulatory requirement. We differentiate ourselves by offering a holistic, comprehensive sustainability certification that not only monitors pesticides and other inputs, but also energy, water, and waste management. We are also unique in that we have created a value-added process that will increase the return on investment for certification and compliance. Our quality management system and auditor training program provide us with a faster, less expensive experience for our customers. Our staff, scientific advisory board, and network of technical experts provide us with the research and development resources to be responsive and adaptive to our clients' needs.



Why We're Here

Problems Worth Solving

Cannabis production can negatively impact the environment:

With legalization of Cannabis in many US states, the industry is going through a period of extremely rapid growth, scaling up from an illegal cottage industry to one filling warehouses and tradeshow. In the pursuit of producing the finest crop, many producers are ignoring the environmental impacts of their processes. An example of this is Reverse Osmosis (RO) filtration, a common method of water purification used in indoor Cannabis production, which wastes 1 – 10 gallons of water for every gallon filtered. Despite having the potential to be a leader in sustainable agriculture, the Cannabis Industry currently has an overall negative impact the environment.

The industry does not have a comprehensive regulator body:

Cannabis rules and regulations are often changing, and it can be very difficult for Cannabis producers to stay up to date and compliant. The rapid shift in regulations has forced some grows to suspend operations; there have also been recalls of product that were tainted with hazardous pesticides. Unlike other industries, new regulations often come into force immediately with no phase-out period, creating an enormous amount of financial pressure on producers and distributors. The new public recall notices in Colorado add an additional concern of negative publicity while many states are still debating whether or not to legalize Cannabis. Furthermore, there is no consistent method to monitor the location and conditions of the product once it leaves the cultivation site.

There is an unmet consumer demand for sustainable Cannabis:

According to the Organic Trade Association, "consumer demand [for organic products] has grown by double-digits every year since the 1990s - and organic sales increased from \$3.6 billion in 1997 to over \$39 billion in 2014". Yet because Cannabis is still nationally illegal, it is ineligible for USDA Organic certification. Consumers want to have the ability to choose products that are environmentally sustainable and safe for their health, yet this existing demand is unmet in the Cannabis industry.

Our Solution

TCC Certification marries two trending demands that are on the rise - the demand for sustainable products and the demand for legal Cannabis. Our certification provides added value to growers by communicating to customers and the marketplace at large that their Cannabis, when TCC Certified, is guaranteed to be grown using the principles of organic and sustainable agriculture.

TCC standards are aligned with various international sustainability standards, including ISO 14001, Environmental Management Systems, and the International Foundation for Organic Agriculture Movements (IFOAM) standards. The standards are more stringent than most US regulations, as they are designed to meet and surpass US, Canadian, and European regulation, with the eventual goal of having standards good enough to expand into any legal market in the world. The standards are currently being reviewed by relevant stakeholder groups who, as experts in their diverse fields, provide great insight and guidance to ensure the highest degree of scientific accuracy, applicability, and transparency. TCC views the standards as a continually evolving process and will periodically update them to ensure relevance and compliance.

TCC is working with Visualead, a pioneer in QR codes, to create a platform that allows growers and distributors to track and trace their product. At the same time, this system will be a marketing platform where consumers can learn more about the producers and farmers who've created their product. TCC's MYGrow program let's growers and producers talk about themselves –their product, their process, and what makes them unique.



Smoking the Competition

The TCC Benefit

Our Team

TCC has a more diverse team than other certification bodies, and this gives us immense strength: we have three internationally trained environmental scientists, an environmental auditor, and a Cannabis producer and entrepreneur. We're also regionally diverse, and have team-members in some of the most important places for the industry: Denver, CO; Northern California, and Nelson, BC, as well as upstate New York and Boston, MA. Our network is even more diverse and experienced than our actual team – we have colleagues around the world who are ready to assist on our board, our task forces, and as auditors.

Our Product

TCC has a few key advantages over our competitors, the first being our product itself. Our standards are more stringent and more holistic than those of any of our competitors. The environmental portion of the standards is based on a variety of systems that are stricter than USDA Organic – this means that with our certification, our clients will always be ahead of any regulatory developments that may arise.

We provide detailed levels of support through the process with materials and training that enables clients to develop best practices and compliance over time through compliance criteria that fosters continual improvement. Alliances with TCC trained consulting firms, technical assistance, and resources add substantive extra value for clients. Our Grower Manual, which provides growers with all the information, templates, and guidance they need, will ensure our clients won't need expensive external consultants to become certified.

Despite all that we offer, we are still one of the most cost-effective choices in the industry – we have the highest quality and the most comprehensive certification, yet the cost is on par (and in some cases, less expensive) than other certifications on the market.

Our Processes

Our organization has internal Quality Management Systems and Audit Certification processes that align with ISO 17065 and other international standards and best practices for certification bodies. This will be very important down the road as all Cannabis certifying bodies and their standards come under increased scrutiny from the marketplace and regulatory bodies. We plan on officially accrediting TCC with an international body within 2-3 years.

MYGrow: Meet Your Grower

Once TCC Certified, a grower is awarded a visually appealing QR code to place on their products. By offering growers a direct link to consumers, TCC affords the marketplace a transparent model for traceability and quality that no other standard or certifying body currently offers. The QR code is important as a primary marketing tool for:

- Certified producers - as a way to tell their story and build their brand
- Wholesalers - as a platform allowing traceability and risk mitigation through safety and quality assurance
- Consumers - as a direct and easy way to access vital information about the product they are consuming

Benefits of Certifications

Operational Structure

Producers that use verifiable documented processes tend to have well run and sustainable facilities that produce higher quality cannabis. By implementing and maintaining Standard Operating Procedures and employee training, producers ensure their growing methods are properly followed, limiting costly mistakes and allowing for more thorough oversight. Safety, health, and environmental issues that can lead to fines or operational shutdowns are prevented. In addition, by adhering to annually audited practices, operational procedures on all levels will be maintained and strengthened.

Cost Savings

A sustainable grow is an efficient grow that uses a minimum of resources for maximum production. The Harvard Business Review found that companies in emerging markets that incorporated sustainable practices or pursued a sustainability certification had reduced operating costs between 10 – 30% with an average savings of 23%. Our certification requires growers to measure and monitor their resource consumption, which leads to a better understanding of material flows and resource use hot spots throughout your system. By having a detailed understanding of consumption practices and their effects on yield and quality, management can make better proactive strategic decisions in the short and long-term. As a company, TCC, is committed to funding and participating in research in the areas of resource efficiency and technological innovations, which will give our clients the ability to stay ahead of the curve at no cost to them.

Market Differentiation

Consumer trust in products and grower practices increases if there is independent proof that all relevant requirements around product quality, safety, and sustainability are fulfilled. As the marketplace expands, more product is available, and branding takes on a greater role in the marketing of cannabis. Independent assurance will play a bigger part in underpinning consumer trust and protecting your brand's reputation. Sadly, the word of the grower will not have the same power in the future as an unbiased 3rd party. As the old adage says, "Trust but Verify". By being an early adopter, our clients will take full advantage of differentiating themselves in this crowded marketplace by using our soon-to-be nationally recognized sustainability seal that will instill confidence and trust amongst consumers and regulators.

Risk Mitigation

As an assurer, The Cannabis Conservancy takes on the risks with the grower. We are responsible for the integrity of the certified product within the marketplace. We keep a careful watch over the TCC certification brand because it advantages us AND the grower in the long term. We take the risks along with the grower when it comes to the quality and safety of the product. By actively mitigating your risks through an audited 3rd party process, growers will be more appealing to investors and insurers.

Ahead of Regulations

States and ultimately the federal government will attempt to ensure the safety of consumers by making it obligatory for products with high risk potential (cannabis) to be tested, inspected and certified by an independent 3rd party. This is because there are neither the resources or the will at national and state levels to inspect the volume of product entering the market. Our certification standards are beyond any current regulations and will ensure long-term compliance for our clients with any future regulations. Towards this effort, TCC is currently working with many state and local agencies to help them craft future cultivation regulations.



Our Team

Management Team

Brian Farmer: Director of Auditing and Certification, New Paltz, NY

Brian, based in Upstate New York, comes from a long line of plant people and professionals in the agricultural arena. He brings 30 years of experience as a small commercial organic grower with an emphasis on sustainable practices and production of heirloom varieties of fruits and vegetables. He has worked as an Integrated Pest Management consultant, agricultural consultant, and farm certifier, working domestically and internationally with major international 3rd party certification bodies. Since 2007 he has audited hundreds of farms, greenhouses, packing houses, and processors to accredited 3rd party standards. As a consultant, he has worked with growers, processors and packing houses to develop Good Agricultural Practices and Hazard Analysis Critical Control Point based food safety plans.

**Brittney Anderson: Director of Operations, Nelson, BC**

Growing up and living in Canada's marijuana mecca, Nelson, British Columbia, Brittney has had a lifelong interest in the cultivation and legalization of marijuana. Her interest in corporate environmental practices was reinforced while working in Canada's oil sands with a small contractor at Suncor, the first company to develop the oil sands, which inspired her to pursue an internship on Vandana Shiva's seed saving farm in India and an M.Sc. in Environmental Science and Policy. Brittney has led teams in product development, service procurement (multi-million-dollar annual service contracts), sales, and communications. Her expertise includes policy development and implementation, environmental education and scientific research. Currently she works as an Environmental Technologist for the Regional District of Central Kootenay, her professional focus includes water conservation, resource recovery, and agriculture.

**Erin Loughney: Director of Content, Boston, MA**

Erin received an M.Sc. in Environmental Science, Policy, and Management via the MESPOM consortium and a B.A. in Spanish from Smith College. She focused her graduate studies on environmental management effectiveness and the creation of quantitative assessment methods for open systems with a lack of baseline data. Erin's strengths include program management, training, and administration, which she uses to work on the issues she's most passionate about: animals, oceans, gender parity and, of course Cannabis. Her disparate work experience - advocating for UN resolutions in Eastern Europe; managing international safety training programs for Halliburton and Schlumberger; and assessing threats to marine parks in the Caribbean - are tied together by her belief that stakeholder engagement is essential to the success of any endeavor.



Jacob Policzer: President, Denver, CO

Jacob has committed his career to learning about sustainable cultivation systems worldwide. He has worked on farms and research projects on six continents, specializing in permaculture, ecosystem management, eco-village design, and natural building. Jacob received a B.Sc. in Environmental Studies at Emory University and a M.Sc. in Environmental Science, Policy and Management through the MESPOM consortium focusing on Urban Agriculture Sustainability and Environmental Justice. Prior to co-founding TCC, he founded Urban Environmental Innovations, which provided sustainability consulting for local food organizations, restaurants, and craft breweries. He is a member of the Denver Department of Environmental Health's Cannabis Sustainability Work Group. Throughout his career, Jacob has strived to find innovative and pragmatic solutions to the world's complex environmental problems and is now applying his knowledge and experience to address the environmental issues pertaining to the cannabis industry.

**Jonathan Valdman: Director of Industry Relations, Grass Valley, CA**

Jonathan is an entrepreneur, farmer and educator of agricultural practices that are based in permaculture, sustainability and Best Management Practices. He has been farming organically for over 20 years, is a second generation Cannabis farmer and has been growing Cannabis since 1992. With a knowledge of land design, growing indoors, outdoors and in greenhouses via soil and hydroponics he has acquired a well rounded level of experience within the many modalities of Cannabis cultivation. In 2006 Jonathan founded Forever Flowering Greenhouses, FFG, in an effort to develop a commercial grade greenhouse company that could address the future needs of the Cannabis industry with an emphasis on reducing carbon footprints and production costs. Through years of hands on experience and commitment to the highest quality products he and his staff have created the standard of the greenhouse light deprivation industry, with annual revenue upwards of \$8 million.



Jonathan has spoken on the various topics of Cannabis sustainability at National Cannabis Industry Association events, The Emerald Cup, Cannabis World Congress Business Expos, Elevated Compliance Conference, Golden Tarp Awards, South Yuba River Citizens League events, California Growers Association events and numerous private panels and workshops. He has consulted with County officials in California for adoption of these practices and has been featured in articles in Inc., Mg, Cannabis Business Times, Marijuana Venture, Cannabis Now, Skunk, Maximum Yield, Cannabis Now, The Cannabist, Marijuana Business Daily, Cannabis Enterprise, Textbook and other smaller publications.

