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Intellectual Property in the Cannabis Industry – Protecting Innovations and Products, Part I: Trade Secrets

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By: Bec Edelson and Emilio Cazares

A cannabis product business is no simple venture. Cannabusinesses have to innovate to remain competitive just like any other company, but in an industry plagued by complex and changing federal and state regulations of marijuana (aka cannabis). At the heart of every innovation lies potentially protectible intellectual property (IP) rights and that is no different in the cannabis industry. In our two-part article, we provide cannabis entrepreneurs with an overview of the IP protections available to them for their innovations. In Part I, we discuss trade secret protection. In Part II, we will cover patent protection. In both parts, we will address choosing between trade secret and patent protection.

Defining a “Trade Secret”

A trade secret is commonly defined as information – e.g., a formula, program, device, method, technique, or process — that derives economic value by not being generally known to the public (or those in the industry who can take advantage of the information) and is the subject of reasonable efforts to keep it secret.¹ Potential trade secrets do not include information that is readily available to or ascertainable by members of the public or those in the particular industry. For example, the composition of an flavored CBD extract

¹ See, e.g., Cal. Civil Code § 3426.1(d); 18 U.S.C. § 1839(3).

may not be subject to trade secret protection if competitors can easily discover the composition by reverse engineering (i.e., analyzing) the extract.

There are many potential trade secrets in the cannabis business — growing methods, distribution plans, drying and curing processes, extraction techniques, fertilizer recipes, customer and supplier lists, cloning techniques, and tissue culture techniques. Indeed, some types of innovations (e.g., soil recipes) may be ineligible for patent protection and better protected as trade secrets. But, they cannot be enforced as trade secrets unless the business has taken – *before* any misappropriation — reasonable steps to protect their secrecy.

Developing an Effective Trade Secret Plan

Before information can be protected as a trade secret, it must be identified as a practical matter. Cannabusinesses should consider examining their operations to determine what information they want to withhold from competitive use (i.e., information that gives them their competitive advantage). Maintaining and organizing an internal inventory of putative trade secrets should assist a company in developing and communicating a trade secret plan to employees and should make it easier to identify potential gaps in reasonable efforts to maintain the secrecy of that information (e.g., a non-disclosure agreement [NDA] or other reasonable protections are not in place).

As part of their internal trade secret plan, cannabis businesses should consider:

- Requiring employee education (e.g., as to the information they need to protect for the company, how they should protect the information, and why it is important to protect the company's proprietary information).
- Including proactive and reactive measures to protect trade secrets, such as limiting access to trade secrets on a "need to know" basis, implementing appropriate physical and electronic security measures for premises and labs, and establishing an action plan (which includes counsel's input) in the event of perceived or suspicion of misappropriation.

Internal trade secret plans should be reviewed and updated periodically. Management and enforcement of trade secret plans may serve as persuasive evidence that "reasonable measures" were taken to protect the confidential nature of the putative trade secret, should the issue be the subject of litigation in the future.

Non-Disclosure Agreements (NDAs)

While employees are ordinarily critical to a company's protection efforts, they also pose one of the biggest misappropriation threats. Indeed, trade secret disputes often involve a former employee using her former employer's trade secret information for a new employer that is the former employer's competitor. To decrease the risk of such misappropriation, cannabusinesses should consider requiring NDAs for all employees who are given access to confidential information. Cannabusinesses can also consider using non-compete agreements (i.e., that limit an employee's ability to work in the same industry for a certain period after the employment terminates). However, many jurisdictions in the United States consider such agreements unlawful or unenforceable except in narrow circumstances. Accordingly, a cannabis business should consult legal counsel about whether such agreements are available to it to protect its trade secret information.

Employees are not the only ones who should be required to execute NDAs. Potential investors often demand detailed information about the business' proprietary technology and processes. Oftentimes, potential investors will be invited to an on-site visit for a tour of a lab or processing plant, potentially exposing them to trade secrets. Similarly, businesses often share trade secret formulas, recipes, or processes to third-party business partners or licensees in the course of their operations. Thus, cannabis businesses should require licensees, business partners, and investors to execute NDAs and consult counsel for advice about appropriate and beneficial provisions.

Identifying Confidential Information to Regulators

A cannabis business may be required to disclose potential trade secrets to regulators. For example, California cannabis businesses are required to submit information about their operating procedures and protocols in their applications for annual licenses. Commentators have expressed concerns that the requirement to disclose operating procedures, which could be requested by competitors pursuant to the California Public Records Act, unnecessarily risks the loss of trade secrets. In response, the Bureau of Cannabis Control has stated that nothing in the regulations prohibits prospective licensees from identifying information as proprietary or confidential so that the Bureau can make an informed decision in response to a Public Records Act request. Indeed, the regulations explicitly acknowledge that manufacturers submitting operation procedures and protocols to the Department of Public Health may claim trade secret protection by clearly marking such information as "confidential."² Thus, cannabis businesses would be wise to clearly mark all proprietary information as "confidential" before submitting it to regulators and to follow applicable procedures established by regulators to protect the confidentiality of information submitted.

State Protection for a Federal Crime

Although some states have legalized (in whole or part) the sale and distribution of cannabis, such activities remain illegal under the federal Controlled Substances Act³ (as well as under many state laws). Thus, to the extent a cannabis business is skittish about drawing attention to itself, it may consider opting for trade secret protection over patent protection if presented with that option. Trade secret protection does not involve registering the trade secret with the federal government, while patent protection involves applying to the United States Patent and Trademark Office (USPTO) for a patent.⁴

Nevertheless, a trade secret holder may face obstacles in obtaining relief for trade secret misappropriation in jurisdictions where the sale and distribution of cannabis is illegal (e.g., seeking relief under the Defend Trade Secrets Act, which creates a federal cause of action for trade secret misappropriation related to products or services used in "interstate commerce").⁵

By pursuing such relief, a plaintiff may have to admit a violation of the Controlled Substances Act or comparable state law. On the other hand, many cannabis businesses conduct themselves openly. Thus, if the government authorities were interested in prosecuting the company for a violation of the Controlled

² Title 17 of the California Code of Regulations, at § 40131.

³ See 21U.S.C § 812 (listing "marihuana" as a "Schedule I" drug).

⁴ However, even if a cannabis business opts for trade secret protection, it may not be able to avoid federal regulators depending on the circumstances. See, e.g., <https://www.fda.gov/news-events/public-health-focus/fda-regulation-cannabis-and-cannabis-derived-products-including-cannabidiol-cbd>.

⁵ 18 U.S. Code § 1836.

Substances Act (or comparable law), they could do so even before the company filed a misappropriation lawsuit concerning their business.

To the extent the sale and distribution of cannabis is illegal in the jurisdiction, the court may or may not refuse to enforce trade secret rights. This is a relatively open issue, which has yet to be decided in many jurisdictions. For example, even though the sale and distribution of cannabis is illegal under federal law, at least one court has held that client lists in the cannabis industry are protectible despite their relation to an “illegal enterprise.”⁶

Keeping the Secret

Like other industries, there are many potentially valuable trade secrets in the cannabis industry. Cannabusinesses should be diligent in identifying and protecting the trade secrets they own, including by seriously considering whether to give anyone (employees, owners, third parties) access to their putative trade secret information unless an appropriate NDA is in place. This is a real concern since to monetize their trade secrets, businesses routinely need to share the proprietary information with employees, licensees, investors, or regulators. Although regulators may be unwilling to sign NDAs, they frequently offer procedures by which a party submitting proprietary information to them can designate the information as not to be made public.

In [Part II](#), we will explore patent protection in the cannabis industry.

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⁶ Silva Enters. v. Ott, 2018 U.S. Dist. LEXIS 223854 *13 (C.D. Cal. 2018).

Intellectual Property in the Cannabis Industry – Protecting Innovations and Products, Part II: Patents

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By: Bec Edelson and Emilio Cazares

We previously explored the applicability of trade secret protection to cannabis-related inventions. Here, we provide an overview of patent trends in the cannabis industry and how cannabis businesses can use patents to protect their technological, agricultural, genetic, or other innovations. In short, cannabis-related inventions may be patentable and cannabis businesses should work with counsel to identify which innovations may benefit from patent protection.

The cannabis plant (“marijuana”) remains a Schedule I drug under federal law, despite the increasing number of states legalizing cannabis. However, there is no express legality requirement for patent eligibility. So while the actual practice or use of a patented cannabis-related invention may be illegal under federal or some state laws, such illegality should not preclude issuance of a patent, if all of the requirements of patentability are met. In fact, the cannabis-related patent landscape has become increasingly crowded over the past five years with companies staking their early claims to growing methods, delivery methods, supply chain management, extraction techniques, vaporizers, medical treatments, pharmaceutical compositions, and more. Further, the number of jurisdictions legalizing cannabis is increasing, signaling the need for cannabis stakeholders to consider developing strategic domestic and foreign patent portfolios.

The Power of a Patent

Patents grant the patent owner an exclusionary right. The patent owner can prevent others from practicing the invention, giving the owner the ability to monopolize the invention. Alternatively, a patent owner may also monetize its patent by licensing it to competitors and collecting royalties from them. Trade secrets do not grant any monopoly. Competitors are free to use the information constituting a trade secret, so long as they did not acquire, use or disclose it through improper means (otherwise known as “misappropriation”). A trade secret holder can seek recourse only if their secret was misappropriated. Trade secret protection potentially lasts forever, so long as the information qualifies as a “secret.” Patents, on the other hand, are disclosed to the world. But as a reward for public disclosure, the patent holder enjoys a monopoly for a limited term that generally lasts 20 years from the date of filing.

The “Novelty” Requirement

Any new and useful process, machine, manufacture, or composition of matter may be eligible for patent protection.¹ Patents have increasingly been granted on cannabis cultivation methods; extraction methods; pesticides; certain cannabis products, such as edible cannabis products, cannabis oils, and extracts; as well as different medical uses for cannabis, such as treatments for a disease or pain.

Unlike trade secrets, patents undergo a formal examination process at the United States Patent and Trademark Office (USPTO). Patentees are required disclose the details of their invention so that the patent Examiner can consider whether that the invention is “novel” and “non-obvious” in light of existing publications, patents,

¹35 U.S.C. § 101.

products and known methods (also known as “prior art”). If the subject of the patent application is not sufficiently novel or it is obvious, the application will be denied.

The Prior Art Problem and Defensive Publication

As a practical matter, the legal history of cannabis has left large holes in the scope of prior art available to the patent Examiner. In most industries, an Examiner can search databases of patents, academic papers, journals, manuals, and publications to assert against a patent. Relatively speaking, there is not a comparable, readily-accessible collection of prior art for cannabis-related inventions since historically the industry has hidden in the shadows. Many preferred not to publish or file their illegal innovations. Thus, some question exists as to whether certain patents are valid in view of age-old methods and extracts that may have not been formally published, but are widely known in the industry. Nevertheless, whatever void of prior art that may have existed in the past is being filled by a flurry of recent filings.

Cannabusinesses could consider a defensive publication strategy to prevent competitors from obtaining invalid patents on known methods. Publishing the details on long-known solutions, such as simple cannabinoid extract formulations, creates more prior art that may be used against any savvy competitors hoping to obtain broad patents by flying under the USPTO’s radar. However, before doing so, a cannabusiness should make sure the information is actually already known; otherwise, it may accidentally give up potential IP rights, or make it unduly easy for others to compete.

Cannabusinesses should also be mindful not to create damaging prior art for themselves. A sale or public use of an invention, like techniques or products demonstrated at trade shows, may trigger a 1-year bar date for filing a patent application.² The patent system rewards the “first to file” the invention, so be sure to file with the USPTO before your inventions are sold, or otherwise publicly disclosed.

Nature’s Handiwork

Inventions also must not fall into any of the categories specifically excluded from patentability. It has long been held that no human can lay claim to nature’s handywork, such as natural phenomena, laws of nature, abstract ideas, and other basic building blocks on which all inventions rest.³ Therefore, patents should be unavailable for strains of cannabis that are found in nature. Yet, patents may remain available for genetically designed or engineered strains, formulations, extracts, and infusions. In fact, the USPTO accepts a special type of application for “plant patents” for distinct and new varieties of plants that can be asexually reproduced.⁴

Recently, a federal district court in Colorado found that certain “liquid” formulations of THC can be patent-eligible, absent evidence that the specifically claimed threshold concentrations occur in the claimed form somewhere in nature.⁵ Thus, when seeking a patent on something derived from naturally occurring compounds or plants, the applicant and its counsel should make clear that it is not seeking a patent on the naturally occurring subject matter but, instead, the human-modified inventions (e.g., specific extract mixtures and genetically modified strains).

² 35 U.S.C. § 102(a).

³ *Diamond v. Chakrabarty*, 447 U.S. 303, 310 (1980).

⁴ 35 U.S.C. § 161.

⁵ *United Cannabis Corporation v. Pure Hemp Collective, Inc.* No. 18-cv-1922 (D. Colo. 2019).

The “Illegality” Issue

Cannabis patent owners can take some comfort in the fact that a federal district court made an eligibility ruling on cannabis-related patents without raising the issue of “illegality.”⁶ Patents infringement claims are filed in federal court, so some are concerned that federal courts will decline to offer cannabis businesses relief to avoid incentivizing activities that remain illegal under federal law.

Courts have, at times, denied relief to a claimant where the claim is based on illegal or immoral conduct (e.g., a contractual falling out between bank robbers). Time will tell if this concern is warranted for patent holders in the cannabis industry but in other contexts, the recent trend bodes well for patent holders. For example, a recent federal decision from the Court of Appeals for the 10th Circuit held that employees of cannabis businesses are entitled to federal employment protections, specifically noting that “case law has repeatedly confirmed that employers are not excused from complying with federal laws just because their business practices are federally prohibited.”⁷ We are closely watching the Western District of Washington, where the issue of illegality is being argued in a contract dispute between a cannabis holding company and a nursery.⁸

Making the Decision Between Patents v. Trade Secrets

Patents and trade secrets are both potentially available to cannabis businesses to protect their innovations. But, generally, electing one can come at the expense of the other – if you file for patent protection your invention will be disclosed to the public, making it impossible to protect it as a *secret*. So how do you choose between the two? Trade secret protection is generally most applicable for innovations that are potentially valuable and subject to secrecy *for a long time*. For example, the formula for Coca-Cola is based on a proprietary, but unpatented, trade secret that is tucked away in a secret vault at Coca-Cola HQ and shows no signs of losing value over many decades. On the other hand, if you have discovered something that you think may soon be an industry standard, but cannot be kept secret (e.g., it is capable of being reverse engineered), then patent protection gives you a clear competitive advantage over others in the business at least for a while.

If you have an idea, but are uncertain as to how it should be protected, consider filing a provisional patent application. Provisional patent applications give you the benefit of the filing date, but remains confidential unless the patentee decides to convert it into a regular (i.e., “non-provisional”) application. Also, if the applicant does not intend to file the application in a foreign country, a regular non-provisional patent application can be filed with a “non-publication request,” meaning that it should remain confidential until it is granted.

Further, a “hybrid” approach may be appropriate at times. Certain aspects of a technology that may be easily reverse-engineered may be protectible with one or more patents; meanwhile, related innovations that can be practically kept secret may be protected as trade secrets unless one or more of the patents require their disclosure.⁹

⁶ *United Cannabis Corporation v. Pure Hemp Collective, Inc.* No. 18-cv-1922 (D. Colo. 2019).

⁷ *Kenney v. Helix TCS, Inc.*, No. 18-1105 (10th Cir. 2019).

⁸ *Left Coast Ventures, Inc. v. Bill's Nursery, Inc.*, No. C19-1297 MJP, 2019 U.S. Dist. LEXIS 189312 (W.D. Wash. Oct. 31, 2019)

⁹ A patent application must disclose a claimed invention in sufficient detail for a person skilled in the art to carry out that claimed invention and must also contain the applicant's “best mode” of making or practicing the invention. 35 U.S.C. § 112.

Securing Growth for Your Cannabusiness

Cannabis is quickly moving into the mainstream of culture and commerce. Recently, the House Judiciary Committee even approved a bill that would decriminalize cannabis on a nationwide scale. Until bills like these actually get signed into law, cannabusinesses are forced to compete in an industry plagued with unique regulatory challenges. But, this does not mean that they cannot attempt to benefit from the various trade secret and patent protections potentially afforded to them by state and federal law. Cannabusinesses should work closely with counsel to develop an IP plan that will ensure growth in this competitive industry.

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