



SUBMISSION

Inclusivity through Regulation: Weeding Out Organized Crime

Submitted: August 9, 2016

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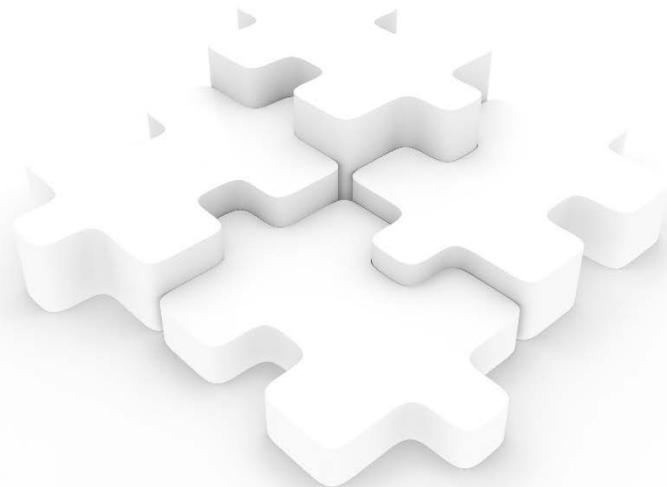
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CTAC acknowledges the wide spectrum of industry participants that helped craft, review, and offered valuable insight on the various drafts of this paper. These participants have many years of experience working in, or connected to, the cannabis economy, including: cannabis growers and processors, medical dispensary owners, cannabis researchers and scientists, business-owners, academics, public health advisors, lawyers, and drug policy specialists. This Submission would not have been possible without their collaborative efforts.

Table of Contents

Inclusivity Through Regulation: Weeding Out Organized Crime	1
Importance of Creating an Inclusive Framework	2
1. Promote inclusive growth: fostering entrepreneurship, economic innovation and competition	3
2. Diminish the black market and reduce involvement of organized crime	4
3. Impose a variety of new licensing categories	4
4. Transparent and accountable security clearance process	5
Best Practices	6
Appendix A - Proposed Licensing Categories	7
1. Clone Production and Genetic Propagation (Nurseries)	8
2. Cannabis Growers	9
3. Cannabis Processors	10
4. Laboratories	12
5. Authorized Retailers/Resellers	14
General Recommendations	17
Appendix B - Matrix of Cannabis Laws in States Authorizing Adult Use	20
Appendix C - Cannabis Legalization Leads to Reduction in Incarceration Rates and May Reduce Certain Crime Rates	22
Appendix D - Cannabis Testing Without Strict Laboratory Standards Yields Inconsistent Results	23
About CTAC	24



The image features three classical columns with a fluted shaft and a base with a series of vertical grooves. The columns are made of a light-colored material, possibly marble or limestone, and show signs of wear and discoloration. A semi-transparent white rectangular box is overlaid on the lower portion of the columns, containing text.

A sustainable and inclusive industry structure offers a new way for Canadian businesses and workers to participate in an otherwise incalculable sector, and contribute to the Canadian economy in a tangible way.

Inclusivity through Regulation: Weeding Out Organized Crime

The Cannabis Trade Alliance of Canada (CTAC) is a trade organization established to represent a broad range of cannabis industry participants. CTAC has drafted this position paper – *Inclusivity through Regulation: Weeding Out Organized Crime* – to supplement two previous submissions: “*The Road Forward After Allard: Creating Medical Cannabis Access Regulations*” and “*Cannabis Legalization in Canada: Creating a World-Class Sustainable Industry through Inclusivity, Transparency and Evidence-Based Policy*”. CTAC is reaching out to government to recommend policies to assist the drafting of regulation and legislation, and to encourage government to leverage the existing knowledge base of the cannabis industry to create an inclusive, sustainable and transparent legalized structure.

Summary

The federal government has an opportunity to significantly reduce the unregulated cannabis market, gang activity, harm to children and other social ills by working with provincial and municipal governments to legalize and regulate cannabis use.

A wide spectrum of stakeholders currently participates in Canada’s cannabis industry (both licit & illicit). To be successful, the regulated framework should include this very diverse and well-established private sector in its negotiations for change.

Key to our country’s success in these initiatives is working with successful entrepreneurs from the existing medical cannabis industry (many of whom are otherwise law-abiding citizens) and giving them an opportunity to participate in a regulated market. This will not only support both the provincial and federal government’s broad mandate of protecting the health and safety of its citizens, it will also give both governments an opportunity to generate significant new sales, income, corporate and other taxes; reduce policing and judicial costs; avoid costly civil legal battles, and provide the public a high degree of confidence in the quality of both medical and recreational cannabis.

It must be recognized that a vibrant underground cannabis culture has been evolving for decades. If excluded from the new market, the underground will continue to flourish, and this government must decide what to do with the outliers. If the fallback position is that anyone who does not comply with the rules of the market must be dealt with by the criminal justice system, then we have not achieved legalization. The outliers cannot be considered criminals solely for running the very same business operations sanctioned and exploited by the government and corporate Canada.¹

¹ Alan Young, “The goal of legal cannabis shouldn’t be corporate gold”, *Globe and Mail*, July 15, 2016, online: <http://www.theglobeandmail.com/opinion/the-goal-of-legalized-cannabis-shouldnt-be-corporate-gold/article30924588/>



Importance of Creating an Inclusive Framework

As the government embarks upon the path to legalizing the possession, consumption and production of cannabis and its products, a recurring theme resounds: that organized crime (i.e. criminal gangsters and gun-runners) are currently involved in, and may attempt to infiltrate the regulated industry. The data however bears this out to not be true. In addition, organized crime is normally characterized by the use of force, intimidation, or threats. This does not define the majority of persons involved in the illicit (or under-regulated) cannabis industry in Canada as it exists today.

The vast majority of cannabis industry participants are otherwise law-abiding and productive citizens; however, prohibition-era laws made even the possession of cannabis a crime, leaving tens of thousands of Canadians with a criminal record.

Small Canadian businesses employing Canadian workers make up the largest portion of the existing cannabis infrastructure. Breeders, propagators, producers, harvesters, processors, laboratories, infused product makers, distributors, transporters, hydroponic and other retailers, healthcare professionals, caregivers, patients, biologists, pathologists, research scientists, biochemists, social scientists, engineers, and tradespersons constitute the fabric of the existing cannabis industry.

The government must create a legal cannabis industry that will be sustainable, inclusive and transparent, without having to compete with the unregulated market. The most efficient way to impede and eradicate the illicit-market is to provide these existing market players (and their products) an opportunity to participate in a new and more regulated economy, transitioning into the emerging legitimate market, without fear of injustice or persecution.

Legalization provides an opportunity for evidence-based regulation through the use of rigorous studies about “what works”, as well as using the best available scientific research and systematically collected data. A successful model for Canada’s cannabis industry should be built upon a foundation of evidence-based regulations. CTAC recommends a legalized cannabis regime which:

- facilitates and leverages the knowledge base of the existing adult-use cannabis industry
- integrates mandatory laboratory testing of all cannabis products (potency and contaminants) – a critical step in the seed to sale process when considering public health, and should be the main objective in the legalized framework
- provides Canadians with equal access to an open, equal-opportunity, competitive cannabis market, that creates economic opportunities for Canadians across our country
- fosters a landscape of support for legitimate businesses adhering to sensible and transparent regulations and works to undermine the profitability of unregulated market activities.

As Canada navigates the legalization and regulation of cannabis, there is an opportunity to develop and implement an inclusive and sustainable model for the cannabis industry.

CTAC urges the government to work with the established medical cannabis industry to develop new regulatory regimes for both medical and recreational cannabis and, in so doing:

1. Promote inclusive growth: fostering entrepreneurship, economic innovation and competition

Communities across Canada, many that are economically depressed due to the overall decline in traditional industry jobs (i.e. lumber, fishing and mining), have benefited greatly from the existing and currently illicit cannabis industry. CTAC encourages government to develop a framework which allows these communities an opportunity to participate in the new cannabis economy.

- A healthy cannabis industry, like other sectors, is better served by a large number of small, medium and large businesses competing fairly (and regulated/taxed equally) in order for consumers, government and the general public to be best served. Small, independent farmers and artisans, whether or not they are currently involved in the cannabis industry, want to be given a fair opportunity to participate in Canada's emerging regulated cannabis economy.
- Independent community businesses across Canada are key to the fabric and vibrancy of our communities and neighbourhoods. At the end of the day it will be the consumer that drives the market. Limiting consumer options to an oligopoly of suppliers – with its consequent control of pricing - will only encourage them to buy from the black market.
- Small businesses often take more risks and innovate more than large ones and thus can create a more competitive and nimble market place. Such businesses also create more jobs and support the middle class and smaller communities. Such a competitive environment also ensures consumers get the quality, standard of service and the selection they are looking for. As with the wine and the craft beer industries, the micro-artisans are the catalysts for creative innovation.
- Having a large number of cannabis businesses also provides more opportunities to the support network of ancillary businesses in Canada. These include but are not limited to: property owners, professionals, testing and research labs, construction trades, universities and much more.
- Empowering BC's cannabis enterprises will put hundreds of people into work and would increase small business activity across Canada. This would ensure the growth of the regulated market and lead to significant tax revenue for government, while simultaneously undermining the unregulated market.²
- In the US, states with established medical and adult-use cannabis businesses report positive impacts on the surrounding community, through the generation of economic benefits such as jobs, revenue, and real estate.³

² Legalization of Marijuana – Policy Paper 2013 – Liberal Party of Canada in BC, at page 12, online: <https://bc.liberal.ca/files/2013/01/DRAFT-Marijuana-Policy-Paper-Jan-13.pdf>

³ “The Local Impact of Cannabis Business”, Council on Responsible Cannabis Regulation, April 12, 2016, online: https://www.crcr.org/wp-content/uploads/2016/04/Cannabis-Industry-and-Local-Impact_041216.pdf

2. Diminish the black market and reduce involvement of organized crime

An effective way to diminish the black market is to allow the participation of current industry participants in the new legislative system. The character of the product, and economics of the marketplace will dictate the future of the illicit cannabis market. Organized crime and illicit players will only be removed from the marketplace if the cannabis product offered under a legalized model is equal or superior to that provided by the illicit market, and if the profit margin which renders organized crime lucrative, is limited. This cannot be achieved under a monopolistic, or oligopolistic, system.

In addition, it is important for the new legalized structure to allow for the personal cultivation and production of cannabis. To restrict the personal production of cannabis in an otherwise legalized environment will have a negative impact on individuals, on the health and safety of those individuals, and on the health and safety of the public at large (by driving the activity back underground and into the black market).

If the government intends on removing organized crime from the cannabis trade as much as possible, allowing cannabis to be grown at home should be a central part of the program. If people are allowed to grow their own cannabis, they will have absolutely no incentive to deal with criminals. If home cultivation is not allowed, then many will prefer to support organized crime rather than pay taxes to the government and support large corporations.

Once a modern and comprehensive regulatory regime is in place, government and local police will have more resources to:

- identify and weed out bad practices and illegal operators,
- Collect more accurate data than it has to date - this will give government even greater ability to make decisions more confidently and generate more public support for those decisions.

3. Impose a variety of new licensing categories (See **Appendix A** below – “Proposed Licensing Categories”)

Licensing under a legalized structure should not impose barriers that are arbitrary and overly restrictive – this would limit the ability of small or medium sized business-owners to enter the new legalized marketplace, and will continue to push segments of the industry into the unregulated ‘black’ market.

CTAC encourages a commercial licensing structure which grants more – and more varied – licenses to increase the quantity and variety of the available supply chain, promoting affordability of the end product thereby impeding continuing sales from the illicit market.

Different aspects of the cannabis industry require different forms of licences as they have different potential for public harm, criminal activity, and taxation. Such differences should be reflected in the licensing requirements in the same way that different categories of license exist in each aspect of the liquor, wine and beer industries. For example:

- nurseries produce immature (vegetative) plants which do not contain the psychoactive properties found in mature (flowering) plants, and have less value than mature (flowering) plants. Therefore, nursery production does not need the same stringent security requirements or inventory control as would be needed for cannabis growers and processors.



- processors that do extraction and refining have very different inventory tracking needs than a cannabis grower. Processors require much less space, less labor, only a fraction of the utilities and very little odor control in comparison to cannabis growers.

We recommend separate licensing categories for the following industry segments: Clone Production and Genetic Propagation (Nurseries), Growers, Processors, Laboratories, Wholesalers, and Retailers:

- Having separate licensing categories also creates more opportunities for small businesses to participate instead of enabling a small group of large (often non-BC based) companies to dominate the market. This promotes economic stability by keeping small sustainable businesses viable and increases participation in the legal market, and away from the illicit market.
- American states that have legalized cannabis - such as Washington, Oregon, Colorado, Alaska, and soon California - all have separate licensing categories.

CTAC believes that an inclusive distribution model will ultimately allow the customer, the most important stakeholder, to decide who succeeds within Canada's newly legalized and regulated cannabis retail marketplace.

4. Transparent and accountable security clearance process

The security clearance process under the current MMPR is unjust and discriminates against individuals with alleged and speculative ties to current cannabis enterprises, those involved in predecessor *Marihuana Medical Access Regulations* (MMAR)⁴, and completely excluding individuals with cannabis related criminal prosecutions. The current MMPR security clearance process completely lacks transparency and accountability, and takes much too long.

- Reasons for refusing a security clearance should not be vague or based on opinions and conjecture, and rather, should be based on facts, evidence and the law. Rules should not exclude those whose only crime was getting caught doing something Canada will now be making legal.
- Whatever form of security clearances required by the province or federal government agencies should not be based on the current federal model under MMPR. Again, we urge government to look at the alcohol, wine and beer industries for guidance; in those industries a background and criminal records check must accompany any application for licensing.

The government must create a cannabis industry that will be sustainable without having to compete with the unregulated market. This can only be achieved through policies that include those with a working knowledge of the existing market infrastructure, often obtained through their participation in these unregulated networks of production and distribution.

⁴ *Marihuana Medical Access Regulations*, SOR/2001-227 [Repealed, SOR/2013-119 s.267] – 2014-03-31. Archived online: <http://laws-lois.justice.gc.ca/eng/regulations/SOR-2001-227/20140307/P1TT3xt3.html> [MMAR]



Best Practices

Legalization provides an opportunity for evidence-based regulation through the use of rigorous studies about “what works”, as well as using the best available scientific research and systematically collected data. For example, under the new legalized system bona fide medicinal users could qualify for insurance/tax exemptions, and have access to greater potency of medicine.

When crafting cannabis legislation, CTAC strongly encourages Canadian legislators and policy-makers to learn from the successes and failures of Oregon, Colorado, Washington State, and Alaska, including consideration of the California’s proposed “*Control, Regulate and Tax Adult Use of Marijuana Initiative* (#15-0103)”.⁵ Thorough examination and consultation should be conducted.

It is important to note that Oregon, Colorado, Alaska, and Washington states all had robust medical marijuana industries prior to full legalization (the path upon which Canada now finds itself), making the transition easier for government and its citizens. See *Appendix B “Matrix of Medical Cannabis Laws in States that have Authorized Adult Use”*.

The movement to legalization is based on the failure of the so-called ‘war on drugs’. The dominating view is that regulated markets protect consumers, put criminals out of business, save the police money, raise revenues and extend freedom. Based on legalization initiatives in US states, initial results are encouraging: drug cartel markets are decreasing, thousands of young people are avoiding criminal prosecution sparing them criminal records, and hundreds of millions of dollars are being legitimately earned and taxed, driving investment to communities and important public initiatives.⁶ There has so far been no explosion in consumption, nor of drug-related crime. See also: *Appendix C “Cannabis Legalization Leads to Reduction in Incarceration Rates and May Reduce Certain Crime Rates”*.

“As far as cannabis is concerned, only behaviour causing demonstrable harm to others should be prohibited: illegal trafficking, selling to young people under the age of sixteen and impaired driving.”

– Cannabis: Our Position for a Canadian Public Policy
Report of the Senate Special Committee on Illegal Drugs, September 2002

Online:

http://www.parl.gc.ca/SenCommitteeBusiness/CommitteeReports.aspx?parl=37&ses=1&comm_id=85

⁵ *Control, Regulate and Tax Adult Use of Marijuana Act*, Amendment #1, online: [https://www.oag.ca.gov/system/files/initiatives/pdfs/15-0103%20\(Marijuana\)_1.pdf](https://www.oag.ca.gov/system/files/initiatives/pdfs/15-0103%20(Marijuana)_1.pdf)

⁶ The Economist, “Legalising cannabis. Reeferegulatory challenge” News Briefing, Feb. 13th 2016, online: <http://www.economist.com/news/briefing/21692873-growing-number-countries-are-deciding-ditch-prohibition-what-comes>



Appendix A

Proposed Licensing Categories

In Canada, there already exists a diverse and well established private sector cannabis industry - Canada is considered a world leader in cannabis production – having developed thousands of different cannabis strains, including a plethora of medicinal cannabis oils, concentrates and infused products, over the years under prohibition.

The objective of any new legislation should be to allow legitimate businesses the opportunity to participate in the supply chain distribution of Canada’s newly legalized cannabis economy. To ensure the protection of the safety of Canadians, provincial regulations should allow for the issuing of cannabis distribution and sales licenses to businesses that are compliant with all applicable rules and regulations.

We recommend a licensing structure which grants more licenses to increase the quantity and variety of the already available supply chain. Separate licensing categories, together with the granting of more licenses will produce a recreational model which:

- protects small businesses
- promotes competition and affordability of the end-product, thereby impeding continuing sales from the unregulated market, and
- ensures that federal, provincial and municipal regulators have the authority to prevent monopolies and anti-competitive practices.

We recommend separate licensing categories for the following distinct industry segments – each of which are further described below:

1. Clone Production and Genetic Propagation (Nurseries) – nursery production of starting plant material (seeds, mother plants, and cultivation of clones)
2. Growers – production (cultivating, growing, flowering and harvest)
3. Processors - extraction and processing into sub products
4. Laboratories - required for analytical services for all cannabis products
5. Authorized Resellers - wholesalers (can sell to other licensees), and Authorized Retailers – retail cannabis storefronts (dispensaries)

Applicants interested in obtaining a license under any new cannabis regulatory and legislative model should have the ability to apply under any one or all proposed licensing categories below.



1. Clone Production and Genetic Propagation (Nurseries)

Cannabis products derived from pest-free and disease-free plants are the biggest factors in ensuring a safe supply. Clones and tissue propagation of a genetically strong mother plant (grown from seeds, and free of harmful pesticides or fungicides) ensures disease free growth and a healthy root system, creating a more robust cannabis plant.

Strong genetics are the root of a sustainable cannabis industry – neither the MMAR nor the MMPR contained sufficient provisions for legally reliable sources of seeds with suitable genetics. The inclusion of Clone Producers and Genetic Propagators ensures the supply chain has a much needed variety of contaminant-free starting plant material. Seed cultivation, clone production and genetic propagation of cannabis should be a full-scale production activity in its own category.

Recommendations

- 1.1 **Licensing Structure.** We recommend a new and separate licensing category for producers interested in obtaining a Clone Production and Genetic Propagation (CPGP) license. Allow for a graduated licensing structure based on square footage of the production (nursery) facility.
- 1.2 **Permitted Activities.** The CPGP license allows a licensee to possess, produce, transport, store and sell: seeds, seedlings, tissue culture, and other propagation materials used specifically in the cultivation of cannabis. Genetics, breeding and cloning only involve immature plants. CPGP licensees can sell to the following licensees: Cannabis Growers, Authorized Retailers/Resellers, and other CPGP licensees.
- 1.3 **Limits.** The number of immature cannabis plants that may be possessed is subject to the limits established by the CPGP license.
- 1.4 **Testing.** CPGP licensees must observe good practices and periodically test mother plants and clones to ensure plants are of the proper genetic material and do not contain contaminants.
- 1.5 **Inventory Tracking.** It is recommended that CPGP licensees follow good production practices such as tagging and tracking of plants throughout the facility, and tracking the number of plants sold.
- 1.6 **Public Health and Safety.** CPGP licensees must meet any public health and safety standards and industry best practices established by the new regulations related to:
 - a) The propagation of immature cannabis plants and the seeds of the plant Cannabis family Cannabaceae.
 - b) The growing of cannabis plants to the extent necessary for the production of mother plants and seeds.
- 1.7 **Application Fee.** Fees should be in the form of a schedule (sliding-scale) that imposes a greater fee for premises with more square footage.



2. Cannabis Growers

A Cannabis Grower license allows the licensee to produce, harvest, trim, dry, cure, and package dry cannabis. The growing and cultivating of cannabis is a production activity.

Recommendations

- 2.1 **Licensing Structure.** We recommend a graduated licensing structure for the Cannabis Grower (CG) license. Graduated licensing should be based on the allowable number of mature plants grown, or on square footage of the production facility.
- 2.2 **Permitted Activities.** The CG license allows a licensee to possess, cultivate, produce, store and transport cannabis. CG licensees can sell, distribute and deliver cannabis to the following licensees: Cannabis Processors, Authorized Retailers/Resellers and other CG licensees.
- 2.3 **Limits.** The number of immature and mature cannabis plants that may be possessed by a CG licensee is subject to the limits established by the CPGP license.
- 2.4 **Testing.** CG licensees must observe good practices. All cannabis and cannabis products must be (i) analyzed and certified as to the safety and potency; and/or (ii) identify ingredients, nutritional content, and/or potentially harmful contaminants.
- 2.5 **Packaging:** All cannabis products for distribution/sale through Cannabis Growers must have proper labelling and child-safe, air-tight packaging.
- 2.6 **Inventory Tracking.** Tagging and tracking of plants throughout the facility is a good production practice. For weighing and recording inventory purposes, focus should be on number of plants and weight. A standardized weight method should be adopted and applied generally. Dried plants material should be weighed into inventory tracking as they come out of the dry rooms and into storage.
- 2.7 **Public Health and Safety.** CG licensees must meet any public health and safety standards and industry best practices established by the new regulations related to the production, cultivation and storage of cannabis.
- 2.8 **Production Equipment.** If growing indoors, equipment used should be commercially manufactured and approved by third-party standards bodies (UL, CSA).
- 2.9 **Security Cameras.** Addition of security camera coverage of areas where plant material is dried and or cured. Note: Drying rooms are highly mechanized spaces requiring heating, cooling, humidification and dehumidification. Under the MMPR, a bank vault is specified for storing cannabis. This is not necessary for the drying process. The cost of adding secured storage (vault) specifications to a dry room is a barrier for potential applicants.
- 2.10 **Application Fee.** Fees should be in the form of a schedule that imposes a greater fee for premises with more square footage or on which more mature cannabis plants are grown (sliding-scale).



3. Cannabis Processors

A cannabis processor license allows the licensee to convert cannabis into cannabis extracts, concentrates and cannabis-infused products. We recommend a graduated licensing structure for this category of producers based square footage of the production facility. The processing of cannabis is a production activity.

Recommendations

- 3.1 Licensing Structure. We recommend a new and separate licensing category for producers interested in obtaining a Cannabis Processor (CP) license, with a graduated licensing structure based on square footage of the production facility.
- 3.2 Permitted Activities. The CP license allows the licensee to:
 - a) possess, extract and process cannabis for the purpose of producing the following cannabis products:
 - i) extracts and concentrates,
 - ii) topicals (cannabis-infused lotions, balms, and oils absorbed through the skin),
 - iii) edibles, tinctures, sublinguals, capsules, suppositories, and transdermal patches.
 - b) produce edible products in food safe kitchens, following food safe production practices and meet the processing standards for other health food products in the marketplace
 - c) store, distribute, transport, deliver and sell processed cannabis products to the following licensees: Authorized Retailers/Resellers and other MCP licensees.
- 3.3 Testing. CP licensees must observe good practices.
 - a) All cannabis and cannabis products must be analyzed and certified as to the safety and potency, and potentially harmful contaminants,
 - a) Edible products must indicate product doses. 10mg is a standard medical dose for new consumers (or such other amount established under the new regulations),
 - b) all processed cannabis must be clearly labelled, indicating cannabinoid profile, testing analytics, and warnings,
 - c) Labels must clearly indicate product doses, warnings/contraindications, ingredients, and nutritional content.
- 3.4 Packaging: All cannabis products for distribution/sale through Cannabis Processors must have proper labelling and child-safe, air-tight packaging.
- 3.5 Production Equipment. Equipment used should be commercially manufactured and approved by 3rd party Standards bodies (UL, CSA).



- 3.6 Security Cameras. Addition of security camera coverage of areas where cannabis material is extracted, and where cannabis derivative products are produced and stored.
- 3.7 Public Health and Safety. Processors must meet any public health and safety standards and industry best practices established by the new regulations.
- 3.8 Inventory Tracking. Tagging and tracking of sourced cannabis, and processed cannabis products throughout the facility is a good production practice.
- 3.9 Application Fee. Fees should be in the form of a schedule that imposes a greater fee for premises with more square footage (sliding-scale).

Guidance

- 3.10 Not all processors want to be involved in the production (growing of cannabis). Therefore, the new regulations should allow and include processor-only licenses. This ensures patients have access to a wider variety of alternative products, particularly in non-smokable forms, and thus should be included as part of a harm reduction strategy.
- 3.11 Allowing the entrance of small businesses to operate with a processor only license will encourage the migration of currently operating processors from extracting cannabis in an unregulated market into a regulated one. Eliminating the unregulated use of solvent and pressurized equipment should also be included as part of a harm reduction strategy.

CTAC promotes Good Production Practices, International Standardization Procedures, Work Safe Compliance, and "Red Seal Certifications to ensure globally recognizable quality, technical and safety assurance standards.



4. Laboratories

CTAC encourages and emphasizes the importance of the licensing of laboratories. One problem with the current prohibition policy is that the cannabis products that are making their way into consumer's hands are not properly tested. As cannabis use expands and more products enter the marketplace, laboratories to analyze the available products are needed.

Third-party testing laboratories are a critical component of the cannabis supply chain. Ensuring purity, efficacy, and consistency of a finished product prior to release to the consumer is a crucial step in the supply chain process when considering public health. *See also Appendix D "Cannabis Testing Without Strict Laboratory Standards Yields Inconsistent Results".*

Recommendations

4.1 Application Processing. Licensed laboratories are a vital and critical component to any regulated cannabis supply chain. Applications for a Licensed Laboratory must be processed within a prescribed timeframe (see "Regulatory Transparency" on page 19).

4.2 Permitted Activities. Verification of cannabis and cannabis products must be conducted by independent third party laboratories as licensed under the new regulations.

Note: Since cannabinoid potency and lack of impurities are value drivers for end-products, Cannabis Growers and Cannabis Processors should be required to engage third party laboratories for proper testing to avoid any conflict of interest that may be created by using their own in-house analytical lab testing.

4.3 Testing Facilities. Laboratory testing facilities must develop and implement standard operating procedures and protocols to ensure regulatory compliance and worker safety.

4.4 Testing Methods. Acceptable methods for testing impurities and contaminants, including microbial, aflatoxin, pesticides and heavy metals, already exist and are available in the British, European or US Pharmacopoeia.

Note: For potency analysis there is currently no widely accepted methodology for quantifying cannabinoid potency (THC, CBD and others). Standards should be developed within a set-period of time. In the interim, other test methods should be accepted. In addition, Terpene profiles are key to understanding the nuances of the therapeutic value of different strains, and would be a valuable addition to the testing regime.



- 4.5 Cannabis Potency Assay Development. Recommend that existing licensed testing companies work together to develop a cannabinoid potency assay suitable for inclusion in the selected pharmacopoeia (indicated in paragraph 7.3 above) and adopt this method industry wide. This pharmacopoeia should be implemented as a baseline binding thread that will steadfastly assure consumers of an expectant consistency of all cannabis products. Encourage a review and revision process for the pharmacopoeia on a periodic base (i.e. annually for the first 5-years and every 3 to 5 years thereafter).
- Note:** Engage leaders from the growing, processing, testing and packaging elements of the industry, along with government regulators to draft a Canadian monograph for cannabis – akin to a Pharmacopoeia. The Canadian monograph would describe the quality, purity, strength, and identity standards for cannabis. Use the draft US monograph and Canadian Herbal Pharmacopoeia as starting points for the Canadian Cannabis Monograph. Alternatively, aim for inclusion in the US or EU Pharmacopoeia.
- 4.6 Standardized testing methods outlined by government:
- a) Government inspectors should conduct randomized sampling of licensed Cannabis Growers, Cannabis Processors and Authorized Retailers/Resellers. If, upon this sampling, a deficiency is found then an inspection would be undertaken.
 - b) Create an Inspectors' Matrix & Point System as per the Canadian Food Inspection Agency (CFIA).
 - c) In addition to third party testing, recommend Third Party Government contracted labs that do government inspection – this would be at arm's length and would minimize conflicts of interest. Contracted labs are relatively inexpensive for the government and they are frequently used in other industries (i.e. Pest Management Regulatory Agency 'PMRA' - <http://www.hc-sc.gc.ca/cps-spc/pest/index-eng.php>)
- Note:** In the federal government (CFIA and PMRA as examples), inspectors are government employees and conduct the inspection, or sampling of a product. The inspector will then organise with a third party contracted lab for the lab testing (some tests are done in government labs, but the third party labs can be throughout Canada as it will be more economical – this is almost always the case for PMRA and pesticide tests).
- 4.7 Record keeping. Licensees must maintain proper client records (as established by Health Canada).
- 4.8 Application Fee. Application fees should be reasonable so as not to increase the overall cost of the cannabis product through the supply chain.
- 4.9 ISO. To establish and maintain standards, CTAC also recommends that, over time, regulations may evolve to include the application of International Organization for Standardization (ISO) 17025, to entities engaged in third party testing of cannabis and cannabis products. Such ISO requirements are similar to environmental, agricultural, consumer protection and food and product safety requirements that must be met by other industries, and is a globally accepted basis for laboratory recognition.

5. Authorized Retailers/Resellers

Canada needs a diverse jobs base. CTAC advocates a model of government regulated, privately-owned cannabis retail outlets; the creation of either a monopoly or oligopoly with respect to distribution is not needed in order to properly control cannabis access. In a recent Federal Court decision⁷, Justice Michael Phelan stated that "Dispensaries are at the heart of cannabis access". Cannabis retailers (known as 'dispensaries') serve Canadian communities by offering safe, accessible spaces where consumers can obtain in-person advice, view and purchase a wide range of available cannabis products.

Global patterns of cannabis consumption reveal that cannabis consumers prefer legal retailers that deal exclusively with a cannabis inventory.⁸ Estimates indicate that approximately 300,000 Canadians access cannabis through cannabis dispensaries (currently federally illegal, but tolerated operations).⁹

As the final piece in the cannabis supply chain, and to ensure better variety and consistent supply of product, Authorized Resellers (wholesalers) should also be a category for licensing in any new legalized cannabis structure. Licensed wholesale distribution allows these entities to sell their tested and quality assured cannabis products to licensed processors and to any licensed cannabis retailer (dispensary).

Recommendations

- 5.1 Licensing Structure. We recommend two new and separate licensing categories: Authorized Retailer (dispensary) and Authorized Reseller (wholesaler).
- 5.2 Permitted Activities.
 - a) An Authorized Retailer license allows a licensee to acquire, package, store, deliver, transport and sell cannabis and cannabis products, subject to the provisions of the license.
 - b) An Authorized Reseller license allows a licensee to acquire, store, transport and deliver cannabis products to other licensees. Health Canada may want to establish different tiers of Authorized Reseller license.
 - c) Authorized Retailers should be permitted to apply for an Authorized Reseller license.
 - d) Authorized Resellers should be permitted to apply for an Authorized Retailer license.
- 5.3 Limits (Prohibitions on Purchasing). Authorized Retailers/Resellers are specifically prohibited from purchasing cannabis product from unlicensed propagators, growers, cultivators or processors.

⁷ *Allard v. Canada*, 2016 FC 236

⁸ Chart of the Week: "Black Market Marijuana Taking Big Hit in States with Operating Dispensaries, Rec Shops", *Marijuana Business Daily*, September 8, 2015, online: <http://mjbizdaily.com/chart-week-black-market-marijuana-taking-big-hit-states-operating-dispensaries-rec-shops/>

⁹ Hager, Mike "Experts predict surge of pot shops across Canada after Trudeau win", *Globe and Mail*, November 11, 2015, online: <http://www.theglobeandmail.com/news/british-columbia/experts-predict-a-surge-in-pot-shops-across-canada-after-trudeau-win/article27225385/>



- 5.4 Supply Chain. All cannabis products for sale/distribution through any Authorized Retailers/Resellers must:
- a) be purchased from the following licensees: Clone Production and Genetic Propagation, Cannabis Growers, Cannabis Processors, other Authorized Retailers/Resellers,
 - b) have proper testing,
 - c) be dispensed into properly labelled child-safe packaging prior to leaving the premises, and
 - d) be stored securely off hours.
- 5.5 Dispensing. Maximum purchase amounts should be within the parameters specified in accordance to the new regulations.
- 5.6 Packaging: All cannabis products for distribution/sale through Authorized Retailers/Resellers must have proper labelling and child-safe, air-tight packaging:
- a) dry cannabis flower must be dispensed into child safe containers with cautionary labels
 - b) concentrates, baked goods, tinctures - to be sold in pre-weighed, pre-packaged with child safety top of mind. Concentrates be tested and dosed accordingly. Warning labels in place similar to e-cigarettes.
- 5.7 Inventory Tracking
- a) Inventory control protocols should be implemented to ensure the integrity of the supply chain and prevent diversion of cannabis to the unregulated market.
 - b) The inventory tracking system should include a continuous chain of custody for cannabis products, periodic inventory counts, and a procedure for dealing with lost or stolen product.
 - c) Point of Sale (POS) systems should be in place to ensure seed to sale tracking of all inventory:
 - i) POS system to be compliant with applicable federal, provincial/territorial privacy laws to ensure patient privacy
 - ii) Ensure that POS system tracks all dispensary recommendations for treatment so that they can be shared with Authorized Practitioners upon patient's request.
- Note:** Currently used POS systems (such as THC Bio-Track, MJ Freeway, Indica On-Line) are not Canadian-based products. Thus there exist opportunities for Canadian companies to develop tech-based products which can engineer current POS challenges.
- 5.8 Allow Authorized Retailers/Resellers and Dispensaries to sell and deliver via online (mail-order) sales.



5.9 Staff and Training

- a) Individuals 18/19 years of age or older should be authorized to work with, or in connection to, an Authorized Retailer/Reseller.
- b) Licensees must make best efforts to provide proper and adequate training so that staff: properly and effectively check patron's age and identification, best understand the cannabis products they sell, and be able to provide patients with the best up-to-date information. Proper training of employees is essential to deliver safe, quality cannabis products to patients and caregivers.

Note: Look to “bud-tender” certification courses offered in the U.S. states (or any other similar certification programs), the “Start Low and Go Slow” campaigns, and brochures that are on every dispensary counter.

CTAC advocates for efforts to support and train private sector retail staff to detect underage purchasers (not difficult to do), and for efforts to educate young Canadians on responsible cannabis use.

5.10 **Public Health and Safety.** Authorized Retailers/Resellers must meet any public health and safety standards and industry best practices established by the new regulations. Licensees must conduct their operations in sanitary conditions, using existing sanitation standards for food packaging, storage, and distribution, as well as herbal medicine handling and storage standards, as models for sensible regulations.

5.11 Security Measures

- a) adequate security measures and loss control procedures should be implemented to prevent theft or robbery and detect shrinkage.
- b) cannabis products should be stored in a manner that is sanitary, preserves the integrity of the product, and is secure. This is important to protect patients from mold, mildew, and other contaminants that may be harmful.

5.12 **Application Fee.** The application fee should be reasonable so as not to increase the overall cost of the cannabis product through the supply chain or create a barrier to access.

General Recommendations - Applicable to all Licensing Categories

Adherence to Applicable Laws. Licensees must adhere to all applicable federal, provincial/territorial and municipal laws and by-laws, including municipal zoning by-laws and zoning restrictions. Licensees are required to communicate with local authorities whenever there is a change in the status of their licence. Licensees will be subject to inspections and compliance in accordance with the new regulations and local by-laws.

Application Fees. CTAC recommends application fees which are reasonable so as not to increase the overall cost of the cannabis product through the supply chain. The application fee should provide additional funding allowing government to hire additional support staff to manage the new regulatory infrastructure.

Change of Address. Regulations must allow for submission of address changes.

Laboratory Testing. All medical cannabis and medical cannabis products must be (i) analyzed and certified as to the safety and potency; and/or (ii) identify ingredients, nutritional content, and/or potentially harmful contaminants in cannabis or cannabis products (as defined under section 4 “Laboratories” above).

Odour Control. Licensees must adhere to local bylaws with respect to odour abatement.

Quality Assurance. The qualifications for the quality assurance person for each commercial producer should be defined clearly in the regulations and enforced consistently across the board. A Bachelor of Science in chemistry, bio-chemistry, plant biology or pathology, agriculture, forest science, or equivalent, or as may be determined under the new regulations.

Security Cameras. Security (web) camera coverage should be limited to the following areas: i) entrances to the exterior of the perimeter of the facility, ii) entrances to areas where plant material will be present, iii) coverage of areas where dried plant material is stored, and any other such additional measures as determined appropriate. Data storage for camera footage should be limited by motion and light when activity is present in the area (CCTV storage space is expensive and there is no point saving footage of a black screen when it is dark with no activity). Security camera protocols are subject to revision and specific to each category of commercial producer.

Security Clearance. All applicants must submit an Electronic Criminal Records Check performed by the Canadian Corps of Commissionaires (www.commissionaires.ca). Reasonable, clear and unambiguous guidelines should be set forth indicating eligibility and ineligibility of an applicant for licensing.

Security Requirements. The excessive security requirements under the MMPR are cost prohibitive, creating barriers to access for many small and medium applicants. Access control requirements should be reasonable and practicable (access control requirements are disproportionate to the level of security they actually provide under the MMPR). Facility security features should focus on real and appropriate levels of threat. MMPR regulations themselves are contradictory – they dictate ‘Fort Knox’ level security requirements on one-hand, yet dictate delivery of cannabis product by mail, on the other hand.

Storage. Medical cannabis product should be stored in a secure area. Security (web) cam coverage, if needed, would be sufficient.



General Recommendations – Regulatory Transparency

We urge regulatory bodies to be specific in their drafting of guidelines and regulations. Clear, unambiguous criteria should be used.

- **Application Processing.** CTAC recommends that regulations provide for application processing and disposition timelines. Specific and measurable pre-license requirements should be set forth and implemented consistently across jurisdictions. Whether it is the quality assurance qualifications, the personnel and site security requirements, or distances from schools and daycares, criteria should be the same for all participants.
- **Periodic Reviews of Legislation, Regulation, Rules and Policies.** In order to stay current with the growth of the new legalized cannabis industry, CTAC encourages governments to use best practices and review enacted policies and legislative requirements on an annual basis for the first 5-years following legalization, and every 3 to 5 years thereafter.
- **Development of a Compliance Framework.** CTAC recommends the development of a Compliance framework including proposed timelines for regular audits and reviews (i.e. financial, operational, security, quality assurance).

The transition from the MMAR to the MMPR in 2014 took cannabis production away from small and medium-sized growers, to tightly regulated 'Fort Knox' commercial operations – a result of the strict and rigorous application process, which became cost prohibitive for many applicants.

At the time of transition, there were ~40,000 licensed MMAR patients, of which ~30,000 held growing licenses. In contrast, only 34 producers have been licensed under the MMPR (as at August, 2016), from a pool of over 1,800 applications. This is not inclusion, but rather the creation of a federal oligopoly.

For Additional Consideration: Remove Cannabidiol (CBD) from Schedule II CDSA

Cannabidiol (CBD) is a naturally occurring constituent of industrial hemp/cannabis. Unlike tetrahydrocannabinol (THC), CBD is a non-psychoactive cannabinoid compound, and not associated with the mind-altering effects of the cannabis plant.¹⁰ However, as CBD is a component of the cannabis plant, it is an illegal substance under the *Controlled Drugs and Substances Act*. As a result of its illegality, the hemp industry is prohibited from using the whole plant; regulatory restrictions prevent Canada's hemp farmers from harvesting, or extracting, plant parts that contain THC. Loosening such regulations would further aid to foster innovation and economic growth of provincial economies and local communities.

CBD works through a number of complex mechanisms and is considered to have a wider scope of potential medical and therapeutic applications than THC. Pre-clinical studies (including cell culture and animal models) has shown CBD have analgesic (pain-relieving)^{11 12}, antioxidant¹³, anticonvulsant¹⁴, anti-psychotic¹⁵, anti-tumor¹⁶, anti-anxiety¹⁷ and neuroprotective effects.¹⁸

Recommendations

1. Remove Cannabidiol (CBD) from Schedule II of the CDSA - CBD would then be regulated under the Natural Health Product Regulations (NHPR) and issued a product license along with a Natural Health Product (NPN) number or an exemption number (EN-XXXXXX), so that CBD can be legally sold in Canada.¹⁹

Note: Under the NHPR, this would deem CBD as safe for consideration as a non-prescription product. Natural health products are available for self-care and self-selection, and do not require a prescription to be sold.

2. Amend the *Industrial Hemp Regulations*²⁰ to allow authorized hemp producers to cultivate, produce and process hemp for extracting CBD. Hemp resin is rich in CBD content, but federal law forbids hemp farmers from saving or using any of the resins from the plants.

¹⁰ Volkow, Nora "The Biology and Potential Therapeutic Effects of Cannabidiol", June 24, 2015, online: <https://www.drugabuse.gov/about-nida/legislative-activities/testimony-to-congress/2016/biology-potential-therapeutic-effects-cannabidiol>

¹¹ Russo, Ethan B "Cannabinoids in the management of difficult to treat pain" *Therapeutics and Clinical Risk Management*, 2008 Feb; 4(1): 245-249, online: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2503660/>

¹² Manzanares, J. et al. "Role of the Cannabinoid System in Pain Control and Therapeutic Implications for the Management of Acute and Chronic Pain Episodes", *Current Neuropharmacology*, 2006 Jul; 4(3) 239-257, online: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2430692/>

¹³ Volkow, *supra*, at note 42

¹⁴ Devinsky, O et al. "Cannabidiol: pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders", *Epilepsia*, 2014 Jun; 55(6) 791-802, online: <http://www.ncbi.nlm.nih.gov/pubmed/24854329>

¹⁵ Zuardi, AW et al. "A critical review of the antipsychotic effects of cannabidiol: 30 years of a translational investigation", *Current Pharmaceutical Design*, 2012; 18(32):5131-40, online: <http://www.ncbi.nlm.nih.gov/pubmed/22716160>

¹⁶ Volkow, *supra*, at note 42

¹⁷ *Ibid.*

¹⁸ Pazos, MR et al., "Mechanisms of cannabidiol neuroprotection in hypoxic-ischemic newborn pigs: role of 5HT(1A) and CB2 receptors", *Neuropharmacology*, 2013 Aug;71:282-91, online: <http://www.ncbi.nlm.nih.gov/pubmed/23587650>

¹⁹ Health Canada website: "About Natural Health Product Regulation in Canada", online: <http://www.hc-sc.gc.ca/dhp-mps/prodnatur/about-apropos/index-eng.php>

²⁰ *Industrial Hemp Regulations* (SOR/98-156)



Appendix B

Matrix of Cannabis Laws in States Authorizing Adult Use

Adult Use Laws				
State	Personal Possession Limit	Home Grow Limit	Plant/Canopy Limit	Driving Law
Colorado	<ul style="list-style-type: none"> - 1 oz. usable marijuana, or equivalent in concentrate or marijuana products - Equivalent of concentrate = 8g - Equivalent of product = 80 10mg servings of THC in product - Non-resident may only purchase ¼ oz. usable marijuana, or equivalent in concentrate or marijuana products 	<ul style="list-style-type: none"> - 6 plants per person, no more than 3 mature - legal to possess yield of plants at grow location 	<ul style="list-style-type: none"> - New licenses max. 1,800, can be increased by application to next tier after 6 months of sales - Tier II – 1,801 - 3,600 - Tier III – 3,601 – 6,000 - Tier IV – 6,001 – 10,200 - Tier V – 10,201 – no cap - Retail cultivator that holds 3 or more licenses must have interest in retail store 	<ul style="list-style-type: none"> - Permissible inference of impairment of 5ng/ml whole blood Delta-9 THC - Driver can be charged with impairment regardless of results of test based on officer's judgment - Implied consent to blood test - Unlawful to have open marijuana container in passenger area of vehicle - Local jurisdictions
Washington	<ul style="list-style-type: none"> - 1 oz. usable marijuana - 16 oz. marijuana-infused product in solid form - 72 oz. marijuana-infused product in liquid form - 7g concentrate 	<ul style="list-style-type: none"> - No home grow allowed 	<ul style="list-style-type: none"> - Initial total statewide maximum set at 2,000,000 ft.², to be adjusted to meet demand - Liquor Control Board approval required to increase total statewide maximum above 8,500,000 ft.² - Applicants may apply for one of 3 tiers - Tier I - < 2,000 ft.² - Tier II – 2,000 – 10,000 ft.² - Tier III – 10,000 – 30,000 ft.² 	<ul style="list-style-type: none"> - Per se guilt of impairment at 5ng/ml whole blood Delta-9 THC - Driver can be charged with impairment regardless of results of test based on officer's judgment - Implied consent to blood test
Oregon	<ul style="list-style-type: none"> - 8 oz. usable marijuana - 16 oz. cannabinoid product in solid form - 72 oz. cannabinoid product in liquid form - 16 oz. homemade cannabinoid concentrate 	<ul style="list-style-type: none"> - 4 plants per household 	<ul style="list-style-type: none"> - Indoor max. 10,000 ft.² - Outdoor max. 40,000 ft.² - 4-1 ratio applied for mixed cultivation not to exceed outdoor max. 	<ul style="list-style-type: none"> - No change to existing law. Illegal to drive under influence of controlled substance. - Implied consent to testing, but no limit established
Alaska	<ul style="list-style-type: none"> - 1 oz. usable marijuana - No specific allowance for cannabinoid product, though 7g of concentrates for inhalation per sale - Total amount of marijuana and marijuana products sold cannot contain more than 5600mg THC 	<ul style="list-style-type: none"> - 6 plants per person, no more than 3 mature - legal to possess yield of plants at grow location 	<ul style="list-style-type: none"> - Limited Cultivation License < 500 ft.² - No stated limit for Standard Cultivation License 	<ul style="list-style-type: none"> - No change to existing law. Illegal to drive under influence of controlled substance
Washington D.C.	<ul style="list-style-type: none"> - 2 oz. usable marijuana 	<ul style="list-style-type: none"> - 6 plants per person, no more than 3 mature 	<ul style="list-style-type: none"> - No established adult use producer license or sale 	<ul style="list-style-type: none"> - No change to existing law. Illegal to drive under influence of controlled substance



Medical Cannabis Laws in States that Have Authorized Adult Use				
State	Personal Possession Limit	Home Grow Limit	Plant/Canopy Limit	Driving Law
Colorado	<ul style="list-style-type: none"> - 2 oz. usable marijuana, though patient can raise as affirmative defense to charge for excess that more is needed to treat debilitating condition - Or equivalent in marijuana products 	<ul style="list-style-type: none"> - 6 plants per patient, no more than 3 mature 	<ul style="list-style-type: none"> - Dispensaries must register patients, and cultivation is tied to the dispensary, so plant counts calculated based on number of patients registered to dispensary that cultivation facility will serve - Plant counts do not include immature plants 	<ul style="list-style-type: none"> - Permissible inference of impairment of 5ng/ml whole blood Delta-9 THC - Driver can be charged with impairment regardless of results of test based on officer's judgment - Implied consent to blood test - Unlawful to have open marijuana container in passenger area of vehicle
Washington	<p><u>Jointly between cardholder/caregiver:</u></p> <ul style="list-style-type: none"> - 24 oz. usable marijuana - No more marijuana product than what could reasonably be produced from 24 oz. of marijuana - Combined total of usable marijuana and product not to exceed 24 oz. or equivalent - After July 1, 2016, limits increase to 3 times adult use limit, and authorizing health care provider may specify that patient requires higher limit 	<ul style="list-style-type: none"> - 15 plants per patient - After July 1, 2016, 6 plants per patient for personal medical use, up to 15 plants per housing unit 	<ul style="list-style-type: none"> - Until July 1, 2016, collective garden may be established for up to 10 patients, limit of 45 plants per garden - After July 1, 2016, cooperative for up to 4 patients may be established 	<ul style="list-style-type: none"> - Per se guilt of impairment at 5ng/ml whole blood Delta-9 THC - Driver can be charged with impairment regardless of results of test based on officer's judgment - Implied consent to blood test
Oregon	<p><u>Jointly between cardholder/caregiver:</u></p> <ul style="list-style-type: none"> - 24 oz. usable marijuana - No limit on cannabinoid products - Grower may possess harvest up to 12 lb. usable marijuana per outdoor plant, 6 lb. per indoor plant 	<ul style="list-style-type: none"> - 6 mature plants per cardholder - No limit on immature plants - Cardholder may designate a grower to produce 	<ul style="list-style-type: none"> - Each grower may grow for up to 4 cardholders, multiple growers may be registered to one address <p><u>For newly registered grow sites:</u></p> <ul style="list-style-type: none"> - If in residential zone within city limits 12 plants - Any other location 48 plants <p><u>For grow sites registered prior to Jan. 1, 2015, allowed to have number of plants registered at that time, up to:</u></p> <ul style="list-style-type: none"> - If in residential zone within city limits 24 plants - Any other location 96 plants 	<ul style="list-style-type: none"> - No change to existing law. Illegal to drive under influence of controlled substance. - Implied consent to testing, but no limit established
Alaska	<ul style="list-style-type: none"> - 1 oz. usable marijuana - No dispensary system established - No specific allowance or possession limit for medical marijuana products 	<ul style="list-style-type: none"> - 6 plants per person, no more than 3 mature - legal to possess yield of plants at grow location 	<ul style="list-style-type: none"> - No separate license or registration for medical cultivators 	<ul style="list-style-type: none"> - No change to existing law. Illegal to drive under influence of controlled substance
Washington on D.C.	<ul style="list-style-type: none"> - 2 oz. usable marijuana 	<ul style="list-style-type: none"> - No home grow allowed 	<ul style="list-style-type: none"> - Maximum of 10 cultivation centers within the district - Cultivation center may produce up to 95 plants 	

Appendix C

Cannabis Legalization Leads to Reduction in Incarceration Rates and May Reduce Certain Crime Rates

- A 2012 Study from the University of Texas that looked at crime statistics for homicide, rape, robbery, assault, burglary, larceny, and auto theft between 1990 and 2006 showed a negative or null correlation between the adoption of medical marijuana laws and an increase in these types of crime. This study showed that medical marijuana laws may be correlated with a reduction in homicide and assault rates.²¹
- From 2010-2014, marijuana possession arrests in Colorado dropped by 84%, arrests for cultivation and distribution of marijuana dropped by 90%. This leads to monetary and time savings from the reduced need for enforcement, prosecution, and incarceration or post-release supervision. Enforcement of marijuana regulations can pay for itself through increased tax revenue and licensing fees.²²
- In the first year of adult use licensing, overall property crime in the City of Denver dropped by 5.7%, with burglary down 9.8% and robbery down 3.3%, from the previous year. In the same period, burglaries of licensed marijuana facilities dropped by approximately 20%.²³
- At the same time, enforcement of laws prohibiting public use saw increased enforcement. During the period from 2013-2014, citations for violations of public display or consumption in Denver increased from 189 to 891. These citations require much less police time, very little to no judicial resources, and are generally not the type of police/citizen interactions that lead to violence or arrest.
- In Washington state, from 2011 to 2014, overall violent crime decreased by 10%, including a 13% reduction in murder. Burglaries decreased during this period by 6%. This is not a causal relationship to cannabis legalization but does show that cannabis legalization did not lead to an increase in these types of crime.²⁴
- Washington traffic fatality data showed no statistically significant trend as of 2014 for either traffic fatalities with marijuana plus any other drugs or alcohol, or for traffic fatalities involving marijuana only.²⁵

²¹ Robert G. Morris, Michael TenEyck, J. C. Barnes, Tomislav V. Kovandzic. "The Effect of Medical Marijuana Laws on Crime: Evidence from State Panel Data, 1990-2006." PLoS ONE (2014), online:
<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0092816>

²² Drug Policy Alliance, "Status Report: Marijuana Legalization in Colorado After One Year of Retail Sales and Two Years of Decriminalization", online:
https://www.drugpolicy.org/sites/default/files/Colorado_Marijuana_Legalization_One_Year_Status_Report.pdf

²³ City of Denver, "Reported Offenses in the City and County of Denver by Month", online:
https://www.denvergov.org/Portals/720/documents/statistics/2014/XCitywide_Reported_Offenses_2014.pdf

²⁴ Drug Policy Alliance. "Status Report: Marijuana Legalization in Washington After 1 Year of Retail Sales and 2.5 Years of Legal Possession", online:
http://www.drugpolicy.org/sites/default/files/Drug_Policy_Alliance_Status_Report_Marijuana_Legalization_in_Washington_July2015.pdf

²⁵ Forecasting and Research Division, Washington State Office of Financial Management. "Monitoring Impacts of Recreational Marijuana Legalization: 2015 Update Report." (Jan. 2016);
http://ofm.wa.gov/reports/marijuana_impacts_update_2015.pdf

Appendix D

Cannabis Testing Without Strict Laboratory Standards Yields Inconsistent Results

- A 2015 study in the *Journal of the American Medical Association* tested potency of edible products purchased at dispensaries in California and Washington. It found that of 75 products from 47 different brands, only 17% were accurately labeled for potency. 23% of tested products understated the content of THC and CBD, and 60% overstated this potency.²⁶
- 2013 study showed that up to 60-70% of pesticides used on cannabis flower may be present in smoke.²⁷
- 2015 paper from the Cannabis Safety Institute showed a wide range of pesticides present on cannabis available in Oregon medical dispensaries, and at unsafe levels. Only 7% of flower and 24% of concentrates that were tested would have failed Oregon Health Authority standards, yet 14% of flower and 46% of concentrates would have failed comparable EPA standards for detectable levels of pesticide residue. The paper suggested a list of analytes to test for that would alleviate this problem, and recommended the use of pesticides that are exempt from set EPA tolerances, those that are generally not considered to be significantly harmful.²⁸
- Standardization through laboratory accreditation procedures used by other industries can help to minimize risk from inconsistent results. Oregon has instituted accreditation through its Oregon Environmental Laboratory Accreditation (ORELAP) program.²⁹
- The need for testing standardization is not limited to pesticides. Other contaminants, such as heavy metals and microbiological agents like *Aspergillus*, other molds, powdery mildew, and bacteria represent significant public health threats if present in consumer products.³⁰

²⁶ Ryan Vandrey, et al. "Cannabinoid Dose and Label Accuracy in Edible Medical Cannabis Products" *Journal of the American Medical Association* (June 2015), online: <http://jama.jamanetwork.com/article.aspx?articleid=2338239>

²⁷ Sullivan, N., Elzinga, S. & Raber, J. C., "Determination of pesticide residues in cannabis smoke", *Journal of Toxicology*, 2013, 378168 (2013), online: <http://www.hindawi.com/journals/jt/2013/378168/>

²⁸ Rodger Voelker and Mowgli Holmes. "Pesticide Use on Cannabis" Cannabis Safety Institute (2015); online: <http://cannabissafetyinstitute.org/wp-content/uploads/2015/06/CSI-Pesticides-White-Paper.pdf>

²⁹ Oregon Health Authority, online: <https://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/cannabis-info.aspx>; Farrer, David (Public Health Toxicologist), "Technical Report: Oregon Health Authority's Process to Determine Which Types of Contaminants to Test for in Cannabis Products and Levels for Action", online: <https://public.health.oregon.gov/PreventionWellness/marijuana/Documents/oha-8964-technical-report-marijuana-contaminant-testing.pdf>

³⁰ Mowgli Holmes, et al. "Microbiological Safety Testing of Cannabis." *Cannabis Safety Institute* (2015); <http://cannabissafetyinstitute.org/wp-content/uploads/2015/06/Microbiological-Safety-Testing-of-Cannabis.pdf>

About CTAC



CANNABIS TRADE ALLIANCE *of* CANADA

Promoting inclusive growth, sustainability and transparency for the Cannabis industry

The Cannabis Trade Alliance of Canada (CTAC), is a trade organization established to represent a broad range of cannabis industry participants. CTAC is reaching out to government to recommend policies to assist the drafting of regulation and legislation, and to encourage government to leverage the existing knowledge base of the cannabis industry.

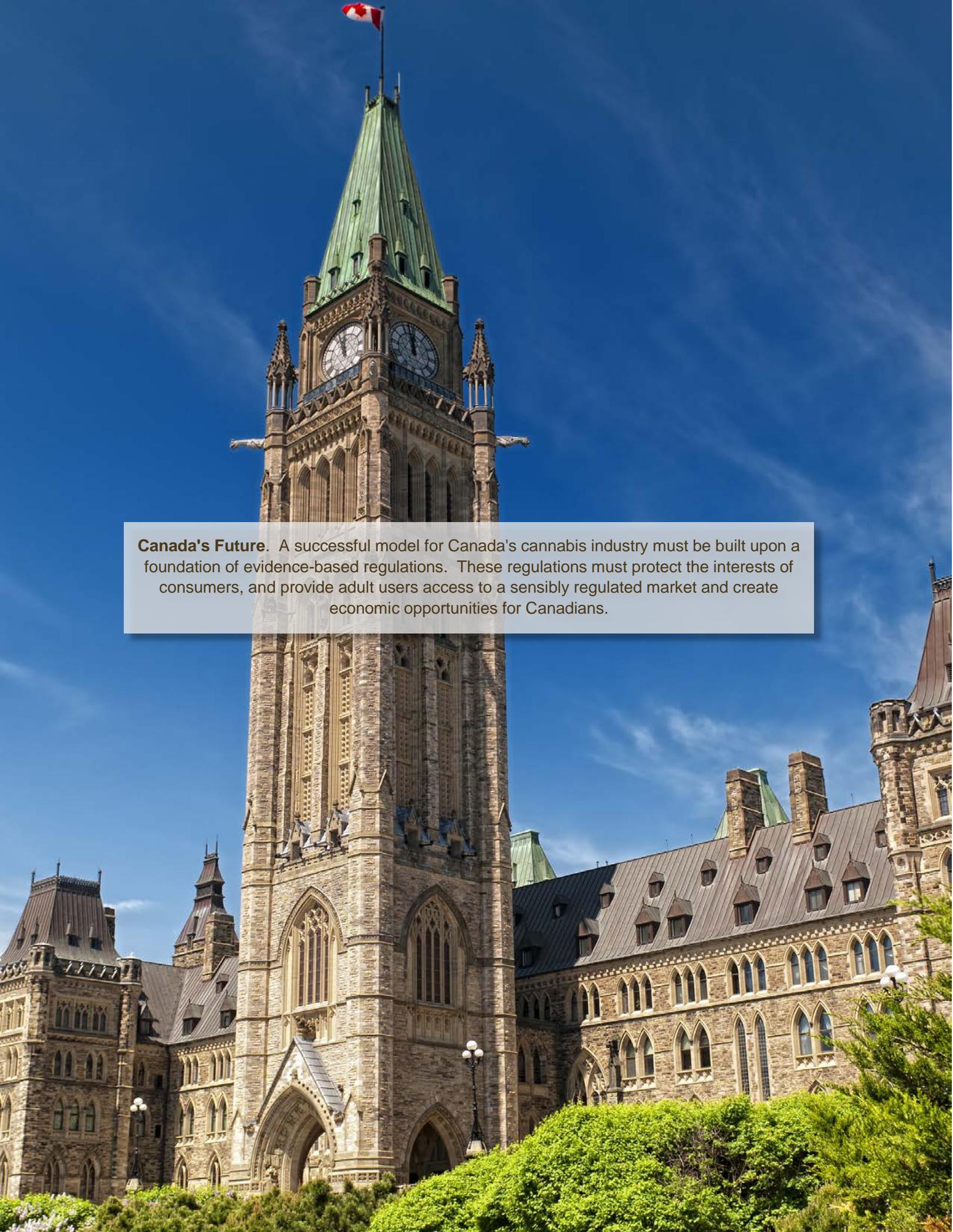
CTAC is available to be called upon at any time to assist throughout the regulatory review and drafting process.

About the Author

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Ms. Mondin brings over 16 years of business, entrepreneurial and legal experience specializing in corporate law and regulatory affairs. Rosy has successfully led the development of new companies, team-building, structuring products and guiding operations. She has held executive positions as General Counsel and Chief Legal Officer for companies involved in regulatory undertakings and in the securitization of real estate. Rosy received her Bachelor of Arts in Criminology from Simon Fraser University, attaining Deans List standing. She went on to receive her Bachelor of Laws from the University of Windsor in 1996.

Read more at: www.sustainablecannabis.ca



Canada's Future. A successful model for Canada's cannabis industry must be built upon a foundation of evidence-based regulations. These regulations must protect the interests of consumers, and provide adult users access to a sensibly regulated market and create economic opportunities for Canadians.

