Coalition for Responsible Cannabis Legislation

Marijuana Products, Extracts, Derivatives, and Regulations

(Overview and recommendations)

Prepared by: CRCL Board Members

January 28 2015

CRCL - PO Box 80254 Fairbanks, AK 99709

Table of Contents

Preface

The purpose of this document is to clarify some of the terms, products, and processes related to the Marijuana Industry. Included are some suggested solutions to some of the more controversial issues that have been raised during public dialogue on these matters. These recommendations are not intended to be comprehensive but, rather, to serve as a reference for further discussion through the regulatory process. Some of the topics included may appear esoteric or insignificant but have been included to serve as background or reference for specific issues.

Introduction

The Coalition for Responsible Cannabis Legislation (CRCL) was founded in 2013 for the express purpose of promoting a legal, regulated Marijuana industry in Alaska and to assist in the development of rules and guidelines that will allow that industry to thrive as a responsible Alaska-based industry. With over 1,000 members statewide, CRCL brings to the table a comprehensive industry-perspective on Marijuana Business, products, and the regulatory process.

Throughout this document, it is assumed that one of the major goals to be realized with implementation of 13PSUM is to allow and encourage existing black-market operators to grow, process, and sell marijuana in a regulated, legitimate market. We believe that success in this one area will yield multiple benefits including: Reduced availability to youth, reduced work/cost for law-enforcement, new jobs statewide, and tax income sufficient to administer a marijuana control board with associated infrastructure and to fund informational programs to educate segments of the population on the responsible consumption of marijuana products. Another goal, is to make retail stores available to medicinal marijuana consumers who currently have no legal way of purchasing those products.

State of the (Black Market) Industry

Exact numbers are difficult to estimate but, by some accounts, roughly 100,000-120,000 Alaskans currently consume Marijuana on a semi-regular basis. If we assume (conservatively) an average, annual consumption of 2 ounces per consumer, then the current market may entail roughly 200,000-240,000 ounces annually (approximately 12,500-15,000 pounds. These numbers are estimates only, the current market may easily be 20-30% greater than suggested.

Due to logistics of transportation, most of the Marijuana consumed in Alaska is produced here as well. Black-market growers may produce only a few dozen plants at a time or may be as large as 1,000-2,000 plants. This range of producers is significant to the regulatory process because, in order to encourage those operators to adopt a legitimate business model, it is imperative to provide an entry-point into the industry for businesses of various sizes.

The Cannabis Plant

Chemical Properties

Cannabis plants produce two chemical compounds of significance: Tetrahydrocannabinol (THC) is the psychoactive component that may produce feelings of euphoria, relaxation, or increased appetite. The other cannabinoid of note is Cannabidiol (CBD) which is often sought for pain management or the control of seizures.

Different strains of the plant contain varying proportions of THC and CBD and some strains have been developed for greater production of one or the other. A notable example of such breeding is a strain called “Charlottes Web” which was bred to have relatively low levels of THC but much higher levels of CBD. This strain was specifically developed for its medicinal properties and has been used to control seizures in patients for whom other, powerful narcotics have been problematic. This strain was named in honor of a young girl named Charlotte whose seizures have been successfully controlled through the use of high-CBD cannabis extracts and tinctures.

Components of the Cannabis plant

Flowers: The tops of plant stalks containing the most potent concentrations of THC and CBD. Typically dried, cured and sold for consumption or processed to extract concentrates.

Trichomes: Small (75-150 micron) mushroom-shaped glands on the surface of the flower and upper leaves that contain the highest concentration of THC and CBD. Often extracted through different processes to produce concentrates largely free of organic (leaf) material. Trichomes, in various concentrations, form the most sought-after parts of flowers, hash, and hashoil, as well as other derivative products.

Fan Leaves: Larger leaves - typically on the lower portion of the plant. They were once sold as a consumable product but are now either discarded in favor of the flowers, or processed in closed-loop extractors to distill resins within for use in creating edible products.

Sugar Leaves: Smaller leaves, typically found at the ends of branches and stalks (nearest the flowers). So named for the accumulation of trichomes on the leaves which gives them a sugar-frosted appearance.

Trim: A general term applied to leftover flower and leaf material that is typically processed to produce kief, hash, hashoil, or infusions.

Stalks: Stalks and stems are of little value to the Medicinal or Recreational Marijuana market but may be sold to a secondary hemp industry for further processing.

Strains of Cannabis

There are three major species of the Cannabis genus:

1) Cannabis Sativa
2) Cannabis Indica
3) Cannabis Ruderalis

There are differences between the Sativa and Indica species that result in slightly different effects when consumed, however those differences are not considered pertinent to a regulatory discussion. Most contemporary strains are some hybrid mix of the two species.

Cannabis Ruderalis is notable because it flowers after a given period of time – not in response to the length of the day. This is significant because, considering Alaska's peak daylight hours, relative to the typical rainy season, this species may be best for outdoor growing during our fairly short growing season.

Cannabis Flowers

Most cannabis products are derived, directly or indirectly, from the flower of the female plant. The male plants produce few desirable compounds and, except in breeding and research programs, are typically destroyed as soon as they are identified as being male. The female plants continue to develop but are never fertilized by the males. The unfertilized female flowers grow larger, develop more trichomes and are more potent. These unfertilized plants are known as "Sinsemilla" plants (from the Spanish "Sin semilla" – meaning "without seeds").

Potency of contemporary strains and derivative products

Much has been made of the potency of certain strains as compared to those available 20-30 years ago. It is true that the average marijuana product available today is relatively higher in THC content but one could argue that this is more a function of the market than anything else. Discriminating consumers have become accustomed to a better product, to the point that portions of the plant are now thrown away or processed for use in edibles simply because no one is willing to buy them anymore when higher-quality flowers and concentrates are available.

It is tempting to treat concentrated forms of marijuana differently than the raw flowers or leaves, but to do so assumes a difference in the products that does not exist.

To make an analogy to alcohol, some consumers prefer beer, others prefer whiskey but they adjust their consumption accordingly to reflect the different potency of the products. Likewise, in the marijuana industry, some consumers prefer the flowers, others prefer more concentrated products (hash, hashoil, etc.) and they adjust their consumption accordingly.

This simple fact is, perhaps, one of the least understood aspects of the current discussion.

Derivative Products

Flower

The mature flower of the female cannabis plan (sometimes referred to as “Buds”). Traditionally, both the leaves and flowers of the cannabis plant were commonly consumed, most often by smoking. Though still fairly popular, flowers have given way to concentrates and edibles, and even the smoking of flowers and oils has evolved markedly over the past 20 years.

Concentrates

This section is intended to bring some clarity to the discussion on marijuana extracts/concentrates and to offer some suggestions on how they may be properly managed / regulated. It is important to note that concentrates – of one form or another – along, with edibles, now comprise as much as 50% of the market in some areas. Therefore, while simply banning such derivative products may seem desirable, doing so would virtually guarantee the perpetuation of a significant black-market industry for the foreseeable future.

Keif

Keif (or Kif) refers to the resin-filled trichomes from the flower separated from the rest of the plant using various mechanical or thermal processes (freezing the material allows the trichomes to be shaken loose and gathered). In agricultural terms, it is similar to separating wheat from chaff. The collected trichomes resemble coarse sand with a light tan or greenish tint.

Chemically, it is very similar to the flowers of the plant, lacking only the organic leaf and reproductive elements of the flower.

The resulting concentrate may be smoked or eaten by itself, added to a small amount of flower, or used in other processes to create oils or edible products. Current processes do not involve high-pressure equipment or volatile compounds of any kind – relying instead on the use of dry-ice or ice-baths to freeze the trichomes so they can be sifted from the rest of the plant material and collected.

Hash

Hash, or Hashish is merely Keif (the collected trichomes from the cannabis flower) pressed into a small block of solid material. Like Keif, Hash is chemically similar to the flowers of the plant but having had most of the organic material removed by sifting.

Hashoil
Hashoil is a liquid concentrate derived from the trichomes and other plant material. This oil extract is what remains when the cellular trichomes are stripped of the resins within. Still considered a raw product of the plant, the oil is typically extracted by exposing the plant material to pressurized CO2 or another solvent to rinse out the resin, and then evaporating the solvent. What remains is a dark, lightly viscous oil. Done properly, the final product has little to no residual solvent and resembles a concentrated oil with a relatively high ratio of THC / CBD by weight.

Hashoil has grown in popularity over the past 30 years and is now the preferred product for many recreational and medicinal consumers – representing a significant portion of the market in some areas. Hashoil can be consumed directly using pipes or vaporizers, or used to create edible products or tinctures (the last being very common amongst medical consumers).

In commercial settings, hashoil is typically derived using closed-loop extraction systems employing pressurized CO2 or other gases as a solvent. This process is very similar to that used to extract Lavender oils, Vanilla extract, and other familiar oils and extracts. In a controlled environment, with trained personnel and suitable equipment, this is a safe and very common industrial process. The International Building Codes (IBC) already provides design guidelines for facilities using such equipment and processes.

Tinctures
Tinctures are a diluted form of hashoil mixed with alcohol or glycerin and are a preferred method of consumption for some medical consumers.

Infusions
The leaves or concentrates (hashoil or hash) may be used to infuse THC in a solvent - this can include cocoa butter, dairy butter, cooking oil, glycerin, and skin moisturizers – which are then used in cannabis foods (edibles) or applied topically.

Methods of Consumption

Smoking

The most recognized and stereotypical method of marijuana consumption is smoking, with a pipe or paper-wrapped “joint”. While this does produce some residual (second-hand) smoke it is typically not in the volumes associated with cigarette smoke because the amount of material burned is relatively small compared to that burned by a cigarette smoker. This method of consumption is also on the decline.

Vaporizer

Vaporizers are a growing method of marijuana consumption. Some devices function similarly to e-cigarettes where a small amount of oil or flower is vaporized within the device with a heating element – and only when triggered by the consumer. The result is a more concentrated vapor with very little residual smoke or vapor.

Cannabis Tea

Produced by adding a saturated fat (cream or milk) to hot water with a small amount of infused THC.

Edibles

This covers a broad range of products including chocolates and other confections, beverages. and baked goods (ie: cookies, bread, or the ubiquitous brownie). Many consumers prefer edible products above all other forms of consumption. Many medical consumers can only consume marijuana in edible form.

It is important to note, for regulatory purposes, that the total weight of an edible product is made up by the confection or product itself – not the concentrate used to introduce THC into the recipe,

Regulatory considerations / recommendations

Concentrates

Hash
Hash is similar in chemistry and effect to the raw flowers of the plant. Consumers often prefer hash because it lacks the organic material (leaf) of the flower. Hash production does not typically involve the use of solvents or other volatile compounds. Therefore, there is little value or need to regulate hash differently than the flowers themselves.

Hashoil
The regulatory challenge with hashoil is that, in the absence of retail stores selling a quality, tested product at a reasonable price, some consumers have taken to home-extraction using butane – and sometimes in less-than-ideal settings. Butane, like any volatile gas, can be ignited by an open flame or electrical ignition source. This has given rise to home fires and some explosions.

The concern with “butane-hashoil” is a valid one but it’s important to make the distinction between the product (hashoil) which is not volatile, and the home-process of extraction using butane (which can be hazardous). To be clear hashoil, itself, is not volatile although the solvent used to extract hashoil can be in an uncontrolled environment.

Home-extraction is time-consuming, expensive, potentially hazardous, and often yields an inferior extract. The solution, in our view, is to ensure that a viable, regulated industry exists to produce this extract in a safe and economical manner so that consumers no longer have an incentive to attempt their own extraction.

We believe that such an approach would do far more to discourage the dangerous process of Butane-Hashoil production than any form of legislation could hope to.

Marketing

We agree that reasonable guidelines for marketing of marijuana products are appropriate.

However, we believe that such guidelines should not be so onerous as to make all marketing impossible. We agree that advertising that targets, or is openly visible to, underage individuals is undesirable. However, we believe that in-store advertising, web-based ads, and demographic-targeted online ads (21 and over through Facebook, for example) are a reasonable balance between public welfare and First Amendment rights.

Packaging

We agree that marijuana products should not be packaged or marketed to be enticing or attractive to children and that they should not be packaged to look, intentionally, like a familiar child-safe product.

Child-resistant packaging

It's useful to point out that, for decades, prescription drugs – including powerful opiates, barbiturates, and others – have been sold to consumers and packaged in child-resistant bottles with lids that require a modest degree of strength or dexterity to open. Many of these compounds can be immediately fatal or damaging if ingested by a child – yet the standard of protection (at least in the packaging) is clearly established.

Although marijuana products are not potentially lethal, we propose that a similar child-resistant packaging be required at the point of sale. Where a product cannot readily fit into available safety-lid bottles, an acceptable alternative might be a re-sealable pouch with a special zipper. Several such products are manufactured and are being used in Colorado. Consumers might elect to purchase one at the time of sale or re-use one from a previous transaction.

Serving Size

We agree that a standard "serving size" should be established as a guide for consumers buying edible products. Such a measure has proven both necessary and effective in other states as an appropriate consumer protection.

A likely concentration would be in the range of 5-20mg THC per serving with a recommended maximum of 4-6 servings per package (depending on the nature of the product). Products that cannot be readily re-sealed (such as a single cookie or beverage) might best be limited to a single "serving".

Labeling

We agree that marijuana and its' derivative products should have some basic labeling requirements to include:

1) THC content (by percentage)
2) Number of servings (when appropriate – typically for edibles)
3) A warning that the contents contain marijuana or marijuana derivatives

Public / Private Space (definition)

Some local lawmakers have expressed concern over the distinction between Public versus Private consumption of marijuana. We recognize that Public consumption is unlawful under the provisions of 13PSUM, however there remains the definition of what is Public Space.

There are two specific examples that can be drawn from the consumption of alcohol and tobacco:

1) Bar and restaurant owners currently have the option of allowing their patrons to smoke cigarettes in designated areas (sometimes outdoor decks or patios). Since those properties are owned by or under the legal control of the business, it is effectively Private property and we believe they should be allowed to determine for themselves if marijuana may be consumed on the premises.

   Note: In light of the proposed statewide ban on smoking we suggest that the use of e-cigarettes and vaporizers for marijuana be exempted from such a ban.

2) Special events such as the Beer and Barleywine Festival in Anchorage (and other such events around the state) are able to serve or allow the consumption of alcohol within designated areas during the event. We propose that similar events – specific to the marijuana industry – should also be allowed to designate areas for consumption / sampling on the premises and during the specific hours of the event assuming that the activity is consistent with other state or local laws pertaining to smoking of cigarettes or the use of e-cigarettes or vaporizers.

Some businesses may develop around the model of a coffee shop that serves marijuana products. Some of these may even provide designated areas for consumption. We suggest that the statewide rules should allow for such businesses – pending local approval.

Licensing of Businesses

We recognize that Public Health and Welfare are the primary goals of the licensing process, however we believe that market forces of supply and demand should ultimately be allowed to determine the success or failure of individual businesses. That said, we believe that an effective licensing process can address both of these goals.

Types of Licenses and Associated fees

Ballot Measure 2 articulated four general categories of license (Grower / Processor / Lab / Retailer).

We recommend that the License for Grower / Producer be expanded into a tiered system as follows:

Tier 1 - Fewer than 100 plants
Tier 2 - Over 100 but fewer than 2,500 plants
Tier 3 - Over 2,500 plants

We further recommend that the initial application and license fees be kept as low as possible for Tiers 1 & 2 in order to encourage existing black-market growers to transition. We believe the lower fees would be justified since these smaller operators should require less administrative time to evaluate and process. We propose that the Tier 1&2 licenses be made available earliest with the Tier 3 permits made available 4-6 months later.

This approach would give smaller operators time to become established before opening the market to larger groups that might otherwise dominate the market. This could effectively dull the effect of “Big Marijuana” taking over the Alaska market as some have suggested.

Qualifications for Licensure

We believe that the most effective way of evaluating applications would be a weighted, merit-based system whereby applicants can be evaluated on their likely ability to meet the regulatory requirements and operate a viable business. A weighted system would also allow applicants weak in one area but stronger in others to compete for available licenses.

Residency Requirements

We recommend that qualifications for those with controlling interest in a marijuana business be predicated on the same criteria as those used for the Permanent Fund Dividend – Alaska resident with a prior period of residency.

Background Checks
We agree that background checks should be conducted for individuals who would have controlling interest in a marijuana business. However, we would suggest that prior convictions for non-violent or marijuana-related offenses not be the sole grounds for license denial. The rationale here is that individuals with a felony conviction for growing marijuana may have served their time and / or parole but could still have a difficult time getting a high-paying job. That same individual might well find a high-paying career as a master-grower with a marijuana business and that could help them to get re-established in society and to provide for their families in a productive manner.

Application Process
We are adamantly opposed to a “Lottery-Style” system of licensing. Such a system could have the effect of granting licenses to individuals or groups who may not be committed or prepared to engage in this industry while denying licenses to others who are prepared to operate effectively in a regulated environment.

Rulemaking Board

It remains the position of CRCL that a dedicated Marijuana Control Board is the ideal body for working out the details of Marijuana Regulations. While we agree that Marijuana can be regulated “like” alcohol, the two products – and their associated industries – are sufficiently different that a separate board should be assigned the task of working out the regulatory details. In particular, we believe that such a board should include representatives of the Marijuana Industry and should not include members of the alcohol industry as that could result in a conflict of interest on the board.

That said, we recognize the current constraints of both time and budget and we believe that a suitable compromise would be a hybrid-board, housed within the ABC, guided by the current director (Cynthia Franklin) and utilizing existing resources of staff and office space but composed of individuals whose sole focus is Marijuana Regulations.

Rulemaking process

CRCL is aware that some individuals or groups opposed to this initiative may be attempting to delay the process indefinitely, or at least until the Legislature can repeal the law in February of 2017. Naturally, we are opposed to such a strategy.

We believe that given time to develop properly, this new industry can operate in a responsible manner and offer the Legislature every reason to *not* repeal this law in 2017. In order to do that, it is imperative that the rulemaking schedule be adhered to so that there will sufficient data available to the public and the Legislature during the 2017 session to support the continuation of a legal, regulated marijuana industry.

The rulemaking schedule defined in 13PSUM is aggressive but we believe it is achievable provided that the following conditions exist:

1) A rulemaking body is identified quickly and granted the authority to proceed with the rulemaking process.
2) The individuals assigned to the rulemaking board and any associated sub-committees are committed to the successful execution of this voter initiative.
3) No extraneous actions are taken that would intentionally or unnecessarily delay implementation or negate key aspects of the new law.

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