

Rulemaking Considerations for Marijuana Production Management in Colorado

Prepared for the Colorado Department of Revenue

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COLORADO
Department of Revenue

The Marijuana Policy Group (MPG) was formed in 2014 as a collaborative effort between the University of Colorado Boulder Business Research Division (www.leeds.colorado.edu/brd) and BBC Research & Consulting (www.bbcresearch.com) in Denver. Both entities have offered custom economic, market, financial and policy research and consulting services for over 40 years. The MPG mission is to apply research methods rooted in economic theory and statistical applications to inform regulatory policy decisions in the rapidly growing legal medical and recreational marijuana markets.

Contents

BACKGROUND	1
“COLE MEMORANDUM.”	1
COLORADO DEPARTMENT OF REVENUE “GENERAL PRINCIPLES.”	1
EXISTING, EXPLICIT CONTROL MEASURES.	2
OTHER REGULATORY AND MARKET FACTORS.	3
MARIJUANA DEMAND ESTIMATES AND ACTUAL MARIJUANA PRODUCTION	4
PRODUCTION MANAGEMENT OPTIONS	4
GOALS AND CRITERIA.	4
CLASSIFICATION OF PRODUCTION MANAGEMENT SYSTEMS.	5
SUMMARY	14
RECOMMENDATIONS.....	16
REFERENCES	18

The Marijuana Policy Group (MPG) presents background and considerations for marijuana production management of marijuana in Colorado; discusses various approaches; and recommends next steps in evaluating production management controls.

Background

The U.S. Department of Justice's priorities and the Colorado Department of Revenue Marijuana Enforcement Division's (MED's) objectives and current marijuana production management approach provide a useful framework for examining production control methods.

"Cole Memorandum." On August 29, 2013, the U.S. Department of Justice Deputy Attorney General James M. Cole released a memorandum to all United States attorneys titled, "Guidance Regarding Marijuana Enforcement." That document identifies marijuana-related enforcement priorities of importance to the federal government:

- Preventing the distribution of marijuana to minors;
- Preventing revenue from the sale of marijuana from going to criminal enterprises, gangs, and cartels;
- Preventing the diversion of marijuana from states where it is legal under state law in some form to other states;
- Preventing state-authorized marijuana activity from being used as a cover or pretext for the trafficking of other illegal drugs or other illegal activity;
- Preventing violence and the use of firearms in the cultivation and distribution of marijuana;
- Preventing drugged driving and the exacerbation of other adverse public health consequences associated with marijuana use;
- Preventing the growing of marijuana on public lands and the attendant public safety and environmental dangers posed by marijuana production on public lands; and
- Preventing marijuana possession or use on federal property.

The Cole Memorandum makes it clear that the Department of Justice expects state and local governments to implement "strong and effective regulatory and enforcement systems" that cover those priorities. A well-designed production management system can, among other effects, minimize or avoid:

- Excess supply, which might lead to diversion of marijuana from Colorado to other states or the unregulated market in Colorado; and
- Possibility of depleted supply of marijuana in Colorado's regulated market, which might lead to an increase in black market activities.

These benefits are in line with the enforcement priorities presented in the Cole Memorandum.

Colorado Department of Revenue "General Principles." The Colorado Department of Revenue Marijuana Enforcement Division's Request for Proposal number DOR14007/MED Study

issued November 13, 2013 stipulated that project deliverables, including the production management system, adhere to the four principles described in Figure 1.

Figure 1.
MED production management system guiding principles

Principle	How principle pertains to	
	MED enforcement	Licensee compliance
Transparent	Open methodologies where the objectives are clear and capable of being replicated in the future	Can fully account for all transactions relevant to the tracking of marijuana
Systematic	Capable of being uniformly applied given current and future data; and Uses current technologies in place at MED	Licensees can utilize State's marijuana inventory tracking system and regulations as a tool to assist in maintaining compliance
Operable	Standards are enforceable; Realistic transition for MED; and Allows for the ability to adjust to market conditions	Can reasonably comply with standards; Realistic transition for licensees; Allows for the ability to adjust to market conditions; and Allows for new entrants into market
Defensible	Grounded in law; Recognized research methods applied; and Able to withstand scientific and legal scrutiny	Licensees who comply with standards can be reasonably assured that MED will find them compliant as well

Source: The Marijuana Policy Group, 2014.

Existing, explicit control measures. The State of Colorado currently uses limits on the number of plants allowable in various segments of the market as a method of controlling the production of marijuana.

Medical marijuana. Colorado's Amendment 20 permits patients to engage in the medical use of marijuana with plant possession limited to:

- Up to six marijuana plants, with three or fewer being mature, flowering plants that are producing a usable form of marijuana; or
- More than six plants if a medical doctor deems a larger quantity to be medically necessary to address the patient's debilitating medical condition and makes such a recommendation to the State.

Medical marijuana patients may grow plants within these limits themselves, or they may assign the plants to a licensed center or a primary caregiver.

Personal use of marijuana. Colorado's Amendment 64 permits persons 21 years of age or older to grow no more than six marijuana plants, with three or fewer being mature, flowering plants.

Retail marijuana. MED adopted a Permanent Rule (R 211(E)) setting an interim production cap on retail marijuana that became effective March 3, 2014. Prior to the MED's intended replacement of this rule in the summer of 2014, this rule limits the allowable number of plants that each retail marijuana cultivation facility and select infused product manufacturers may possess at any one time. Given the limited number of marijuana cultivation facility licenses granted, this rule serves to limit the total amount of marijuana cultivated for the retail market in Colorado.

Retail establishment-level marijuana plant limits include:

- Based upon the Medical Marijuana Center license of the applicant for a Retail Marijuana Store License, Retail Marijuana Cultivation Facility Licenses were limited to cultivations of not more than 3,600 plants (Type 1 Center), 6,000 plants (Type 2 Center), or 10,200 plants (Type 3 Center) in aggregate at any one time; and
- Medical Marijuana-Infused Products Manufacturers with an associated Optional Premises Cultivation were limited to retail marijuana cultivations of not more than 1,000 plants in aggregate at any one time.

The State Licensing Authority, at its sole discretion, may adjust those plant limits on an industry-wide aggregate basis for all establishments subject to that limitation. MED may consider waivers on a case-by-case basis for licensees.

Other regulatory and market factors. There are a number of regulatory and market factors, in addition to the current limits on the number of marijuana plants that can be legally cultivated, that serve to limit supply, including:

- Marijuana produced outside Colorado is prohibited from entering Colorado's regulated market;
- Barriers for new entrants into the retail marijuana market, which include:
 - Licensing;
 - Residency requirements;
 - Capital outlay;
 - Limited personal resources;
- Limited number of local jurisdictions that allow marijuana sales in the regulated market;
- Limited number of new entrants into the market based on local restrictions, such as zoning;
- Additional local restrictions that could further limit new applicants;
- Limited square footage available for cultivations; and

- Barriers for existing cultivations to rapidly scale production.

These factors are integral to a long-term solution to a production management program.

Marijuana Demand Estimates and Actual Marijuana Production

In order to avoid an excess or shortage of marijuana supply and concomitant issues, MED has contracted with the MPG to develop a marijuana demand estimation model that will link with the production management system and identify the appropriate amount of marijuana to be produced by licensed cultivators. The marijuana demand estimation model will provide annual estimates of:

- Medical marijuana demand for dried product (flowers), edibles, and concentrates;
- Retail marijuana demand for flowers, edibles, and concentrates;
- Black and gray market demand for flowers, edibles, and concentrates; and
- Projections of demand growth due to population growth and other factors.

On an annual or more frequent basis, the production management system should allow MED to set marijuana production levels to meet demand for marijuana, potentially at the level of flowers, edibles, and concentrates. As identified in Figure 1 (MED Production Management System Guiding Principles), in order to meet the operability requirement, the selected production control mechanism will need the flexibility to meet changing market conditions and unforeseen fluctuations in demand. That level of flexibility may be difficult to achieve, given the relative inability of cultivators to quickly scale up production and the illegality of diverting any excess product out of the regulated market.

This discussion assumes that, per Amendment 20, medical marijuana will continue to be regulated on a plant basis. Therefore, any alternative production control method would apply only to the retail marijuana market.

As with the production management system, the economic model that estimates marijuana demand will be transparent, systematic, operable, and defensible. The MPG will turn the demand estimation model over to MED, so that MED can update the estimates in the future.

Production Management Options

The MPG examined a number of production management strategies that could apply to retail establishments.

Goals and criteria. The overall goal of a production management system is to ensure that the quantity of marijuana produced is as close as possible to that “legally” demanded in Colorado in order to promote compliance with the enforcement priorities stated in the Cole Memorandum. As previously discussed, it is important that the production management system be transparent, systematic, operable, and defensible.

Additional considerations of any marijuana production management system should include minimizing market distortions of cultivator, retailer, and consumer behavior. Additionally,