

# Cannabis Regulation

The background features abstract, overlapping geometric shapes in various shades of green, ranging from light lime to dark forest green. The shapes are primarily triangles and trapezoids, creating a dynamic, layered effect. The overall composition is clean and modern, with the text centered in the white space.

# Activities of some state's to date

- ▶ State hemp regulation- <0.3% THC
- ▶ State certification of applicators using pesticides
- ▶ Laboratory method development- Unique Matrix
- ▶ Authority to provide access to approved (legal) pesticide products
- ▶ National Workgroup to obtain multi-state input for human & environmental risk assessment resources (toxicology, env. fate, worker exposure...)
- ▶ National agriculture workgroup “proposed model bill”

# EPA Special Local Needs “State Registration” for pesticide products

- EPA letter of intent of Colorado
  - Provides a path forward
  - Outlines conditions required
- States to perform risk assessments
- Requires support from the pesticide product registrants

Mr. Mitchell Yergert, Director  
Division of Plant Industry  
Colorado Department of Agriculture  
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Broomfield, Colorado 80021

MAY 19 2015

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Subject: Special Local Needs Registration for pesticide uses for legal marijuana production in Colorado

Dear Mr. Yergert:

Thank you for your inquiry regarding the utilization of Special Local Need (SLN) registrations of pesticides under FIFRA section 24(c) for use on cannabis. As you are aware, EPA's regulations, 40 CFR 162.152(a)(4), state that any SLN registration must be in accord with the purposes of FIFRA, which authorizes the registration of a pesticide only on a finding that it will not lead to "unreasonable adverse effects on the environment." In order to facilitate this finding, EPA strongly encourages a State to pursue SLN authorizations only where a federally registered pesticide is approved for use(s) similar to the manner in which the SLN pesticide would be used. EPA expects that a showing of such similarity would provide the best support for making the necessary determinations. Given our understanding of how cannabis is cultivated and the intended way cannabis plant materials may be consumed by humans, we anticipate that a federally registered pesticide would be regarded as having similar use patterns if the federally registered pesticide is approved for use:

1. on food (in order to have a complete toxicity database to evaluate the potential toxicity of acute, short-term, intermediate, and chronic exposure);
2. on tobacco (in order to have a pyrolysis study to determine the breakdown products formed when the treated plant material is burned);
3. by the same type(s) of application methods (in order to assess the exposure of workers who mix, load, and apply the pesticides);
4. on crops with agronomic characteristics similar to cannabis (in order to adequately protect workers reentering areas following application of the pesticide); and
5. in the same kind of structure (e.g., greenhouses/shadehouses) or on the same kind of site (e.g., outdoor dryland site) as the proposed SLN use (in order to ensure that workers handling the pesticide are adequately protected when applying the pesticide – for example, ensuring that the adequate personal protective equipment is required – and that the environmental fate and effects of the SLN use are adequately understood and that any appropriate measures are in place to protect non-target organisms and water resources).

In addition, EPA encourages the State to consider pesticides for which the agency's aggregate and cumulative risk assessment indicate that some modest additional exposure would not approach a risk of concern, i.e., that there is "room in the human health risk cup."

The intent of the list is to assist growers in distinguishing those pesticide products whose labels do not legally prohibit use on cannabis from those that clearly do not allow use. The list is not an endorsement or recommendation to use these products in the production of cannabis in Oregon.

# Why do we need legal pesticides and certified applicators?




If there is not a legal solution growers will use whatever works.

- High residues in concentrates
- Undisclosed pesticide active ingredient in products
- Word of mouth

## News release: Pesticide product Guardian ordered removed from sale

NEWS RELEASE, PESTICIDES FEBRUARY 5TH, 2016 86 VIEWS

*Pesticide product Guardian™ ordered removed from sale, growers asked to stop its usage*

- *The Oregon Department of Agriculture has ordered stoppage of sale and the removal of the pesticide product Guardian, which is labeled for use on ornamental, food, and feed crops for mite control but also used by cannabis growers. In addition, ODA is asking growers who may have purchased the pesticide product to refrain from using it. ODA's actions come following an investigation of the product that found the presence of the pesticide active ingredient abamectin, which is not listed on the product label.*
- 



# Pot products made with unapproved pesticides recalled by Denver companies

Scope of recall covers dozens of products from several retailers, all grown by TruCannabi Denver

By David Migoya  
*The Denver Post*

# Colorado's largest pot grower sued by two consumers over pesticide use

Colorado marijuana business LivWell has been sued by two cannabis consumers over selling pot grown with an unallowed pesticide that allegedly turns into cyanide when smoked

# Check Your Stash: Are you consuming pesticide-peppered pot? Full recall list

MARIJUANA

# Hickenlooper issues executive order to declare tainted pot a threat to public

Any marijuana grown with unapproved pesticides would be removed from commerce and destroyed

By David Migoya and Ricardo Baca  
*The Denver Post*

POSTED: 11/13/2015 12:01:00 AM MST  
UPDATED: 11/13/2015 12:55:46 PM MST

DENVER AND THE WEST

# Denver releases 28,000 marijuana products it had recalled for pesticides

The release comes despite Gov. John Hickenlooper's executive order mandating all contaminated cannabis be destroyed

By Ricardo Baca and David Migoya  
*The Denver Post*

POSTED: 02/02/2016 05:51:21 PM MST  
UPDATED: 02/03/2016 05:40:35 PM MST

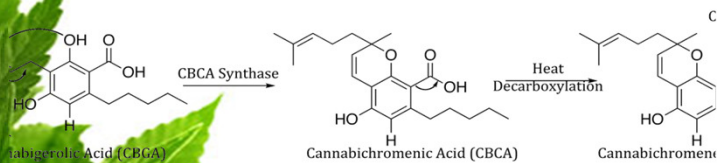
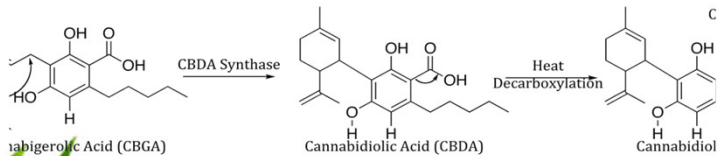
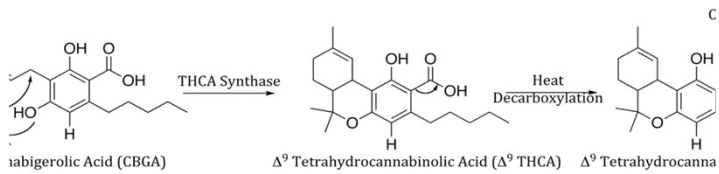
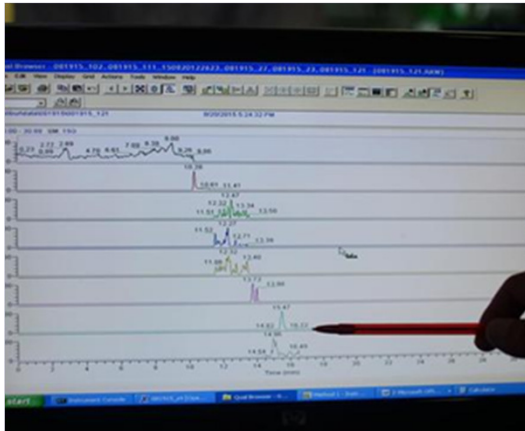
24 COMMENTS

# Advanced Medical Alternatives yanks pot concentrates in state's 11th recall

Denver marijuana shop Advanced Medical Alternatives is recalling some pot concentrates with extremely high levels of pesticides banned for use on cannabis plants in Colorado



# Cannabis Laboratory Issues



- Cannabinoid concentration validation
  - THC
  - THCA
  - CBD
  - CBDA
  - CBN
- Pesticide Residue Analysis
- Pesticide Formulation Analysis
- Adulterated products
  - Powdery Mildew
  - Pathogens (e-coli, salmonella)
- Establish testing protocols and reporting requirements

# Laboratory Needs

## Have

- ▶ Condemnation authority over raw agricultural commodities (flowers) -when deemed adulterated.
- ▶ Pesticide use & applicator certification regulatory authority
- ▶ Consumer protection (recalls), environmental and human health program experience
- ▶ In-depth knowledge of pesticide registration process

## Need

- ▶ Condemnation authority over all cannabis products. (oils, dabs, waxes and shatters)-when deemed adulterated.
- ▶ Authority for laboratory standards
- ▶ Human resources
  - ▶ Laboratory
  - ▶ Field
  - ▶ Program
- ▶

# Extraction Equipment



- Super Critical Fluid Extraction
- Solvents
  - Rotovap
- Butane -BHO

**Dabs, Waxes, Shatters, Oils**





# Possible Matrix



## Cannabis Oil

[www.CureYourOwnCancer.org](http://www.CureYourOwnCancer.org)

### HELPS WITH

- Killing cancer
- Diabetes
- Crohn's Disease
- Gout
- Glaucoma
- Opioid Dependence
- Treating Alcohol Abuse
- Epilepsy
- Psoriasis
- Anorexia
- Asthma
- Adrenal Disease
- Inflammatory Bowel Disease
- Fibromyalgia
- Rheumatoid Arthritis
- Migraines
- Dravet Syndrome
- Dose Syndrome
- Multiple Sclerosis
- Many more...



MEDICAL | RECREATIONAL





**Overarching Analytical Programs  
Recreational, Medicinal, Hemp**

**Commercial laboratories certification**

*Ensure 3<sup>rd</sup> party laboratories are compliant*

- Establish QA/QC standards
- Establish performance testing program
- Establish auditing programs
- Establish reporting requirements

**State (Auditing & Consumer Protection)**

*Ensure product meets Vermont standards*

- Assess product content (cannabinoid content)
- Pesticide residues
- Inorganics
- Pathogens
- Drift

