Southern Rocky Mountain Agriculture Conference

Colorado’s Industrial Hemp Program
February 7, 2018
Industrial Hemp Advisory Committee

A special thanks must be given to our Industrial Hemp Advisory Committee for volunteering their time and the efforts they make to help the CDA understand the issues in the emerging industry:

Alfonzo Abeyta - Hemp Farmer from a Cooperative
Jennifer Anderson - Legislative Liaison Attorney General
Graham Carlson - Cannabinoid Industry
Amy Charkowski - Higher Education Research Institution
Robert Hoban - Industrial Hemp Regulation
Ben Holmes - Seed Development and Genetics
Ed Lehrburger - Hemp Manufacturing Industry
Grant Orvis - Certified Seed Industry
James Ott - Commercial Farmer
Chad Pfitzer - Citizen Advocate
Tracy Shogren - Hemp Small Business
CONCERNING HOW TO MEASURE THE LEVEL OF DELTA-9 TETRAHYDROCANNABINOL IN INDUSTRIAL HEMP

The legislature added clarifying language to Colorado revised Statute, 35-6-105(2) which states:

“The Commissioner shall determine the delta-9 tetrahydrocannabinol concentration by measuring the combined concentration of delta-9 tetrahydrocannabinol and its precursor, delta-9 tetrahydrocannabinolic acid”
Clarification Resulted in Legislature Reaffirmation

• The Colorado state legislature clarified the term “concentration”.

• “Concentration” is the combined concentration of Delta-9 tetrahydrocannabinol and its precursor, delta-9 tetrahydrocannabinolic acid.

• This clarification resulted in no change to how THC levels have been determined in the past by the CDA lab. CDA THC test results have always been based on a “concentration” of Delta-9 THC and its precursor Delta-9 THCa.
Section 35-61-104

The following language was added:

An application to engage in industrial hemp cultivation for commercial purposes must identify by name each officer, director, member, partner, or owner of at least ten percent of the entity and any other person who has managing or controlling authority over the entity.
The following language was added:

**Violations - penalties - denial of registration application.** (6) Notwithstanding any other provision of this Article 61, for up to three years after the effective date of the suspension, revocation, or relinquishment of a registration, the commissioner may deny an application for registration if:

(a) The applicant is an individual who was previously listed as participating in an entity pursuant to section 35-61-104 and that individual or entity was subjected to discipline under this Article 61; or
OBJECTIVES

• Intended for egregious conduct only
• Keeps “bad actor” companies out of the program
• Keeps “bad actor” individuals out of the program
• Can’t change name of company
• Can’t change individual’s name or initial in a name
• Can’t change company to spouse
Additional Legislation Involving Industrial Hemp Outside of the Industrial Hemp Act
SB17-109
Concerning the use of industrial hemp in products designed for animal consumption.

SB17-117
Concerning confirmation that industrial hemp is a recognized agricultural product for which a person with a water right decreed for agricultural use may use the water subject to the water right for industrial hemp cultivation.
COLORADO DEPARTMENT OF AGRICULTURE
INSPECTION AND CONSUMER SERVICES

• Industrial Hemp is an agricultural product

• The Farm Products Program protects producers by regulating businesses that purchase and store agricultural products.

• Frequently Asked Questions pertaining to Industrial Hemp as a Farm Product can be found on the CDA website

  • https://www.colorado.gov/agmain

  • Click on “Inspection/Consumer Services”

  • Click on “Farm Products”

  • Click on “Farm Products Industrial Hemp FAQs”
GROWTH OF THE INDUSTRIAL HEMP PROGRAM
### Historical Growth

<table>
<thead>
<tr>
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<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<tr>
<td>Registered Acres:</td>
<td>1,811</td>
<td>3,657</td>
<td>8,988</td>
<td>12024</td>
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<td>Registered Square feet</td>
<td>253,000</td>
<td>570,980</td>
<td>1.36M</td>
<td>2.35M</td>
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<td>or acres</td>
<td>5.8 ac</td>
<td>13.1 ac</td>
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<td>54 Ac</td>
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<td>Registrations:</td>
<td>259</td>
<td>333</td>
<td>424</td>
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<td>Registrants:</td>
<td>131</td>
<td>166</td>
<td>312</td>
<td>386</td>
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Current Numbers
as of Feb 1

Registered Acres - 12,609
Registered Square Feet - 2,724,487 (62.54 acres)
Registrations - 553
Registrants - 432
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<tr>
<th>Rank</th>
<th>State</th>
<th>Acres Planted</th>
<th>State</th>
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<tr>
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<td>1,200</td>
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<td>7</td>
<td>VT</td>
<td>560</td>
<td>Others</td>
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<td>IN</td>
<td>10</td>
<td>MA</td>
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</tr>
</tbody>
</table>

Comparison to other states planted acres:
Historical Registrations by Month:

- 2014: 259 Total
- 2015: 333 Total
- 2016: 424 Total
- 2017: 533 Total

The chart shows the number of registrations by month for the years 2014 to 2017. The highest number of registrations occurred in May 2017 with 146 registrations.
Number of Registrations by County

50 of the 64 Colorado Counties currently have RLA’s
RLA’s by County as of 11/20/17
How to stay compliant?

TIMELY FILING OF REPORTS:

• PLANTING REPORTS (Within 10 days of planting)

• HARVEST REPORTS (Within 30 days of anticipated harvest date)

• Note: Industrial Hemp Rule 3.6.3 requires that a *registrant notify the Commissioner immediately of any changes in the reported harvest date(s) in excess of 5 days.* If any such changes are made the Commissioner may require additional testing prior to harvest

• *IMMATURE CUTTINGS/CLONES:* Document immature plants/clones on your Harvest Report.

• Pay attention to who signs the report
• Stay current on changes in contact information (within 10 days of change) including changes in authorized contacts and changes in mailing addresses, phone numbers, etc.

• Carefully consider who has access to the information about your registration

• Last minute registrations can result in unprotected grow sites

• Be familiar with the rules (available on Industrial Hemp website)

• Adjust your filter or spam so you receive all notices from the CDA

• If selected for inspection you must contact the Department within 10 days to set up the inspection
Compliance Testing Results
769 Failed Acres

688 of the 769 failed acres (89%)
From (2) “varieties”

*** The CDA Only recognizes CDA Approved Varieties as “Varieties”
Rule Changes from 2017
Part 1 DEFINITIONS

1.6 “Harvest” means the termination of the cultivation process, INCLUDING TAKING CUTTINGS, or the movement of Industrial Hemp from a Registered Land Area to another location or movement within a Registered Land Area between indoor and outdoor planting areas.
4.7.2 Registrants selected for inspection and sampling shall reimburse the Department for all LABORATORY COSTS INCURRED BY THE DEPARTMENT WITHIN 30 DAYS OF THE DATE OF INVOICE.
Amendments to the definitions of “Commercial” in Rule 1.3 and “Research and Development” in Rule 1.12 clarify the language in each of these rules and make it consistent with the implementation of the program.

1.3 “Commercial” means the growth of Industrial Hemp, for any purpose including engaging in commerce, market development and market research, by any person or legal entity other than an institution of higher education or under THE a-pilot program administered by the Department for purposes of agricultural or academic research in the development of growing Industrial Hemp.

1.12 “Research and Development” means cultivation of Industrial Hemp either by an institution of higher education or under THE a-pilot program administered by the Department for purposes of agricultural or academic research in the development of growing Industrial Hemp.
New Rule:

Part 7  CDA Approved Seed

7.3 An applicant that submits a variety for approval under the CDA Approved Seed Certification program shall pay the testing costs incurred by the Department, AND SUBMIT SUCH OTHER INFORMATION AS REQUIRED ON A FORM PROVIDED BY THE COMMISSIONER.
REVIEW: CERTIFIED SEED FRAMEWORK

1919: The Association of Official Seed Certifying Agencies, (AOSCA)

2015: AOSCA Industrial Hemp Standards Passed

Seed Inspection and Registration Law enacted in 1929

1929 CSGA:
- Seed certification in Colorado
- Supervised by the Colorado Seed Growers Association
- Authority of the State Board of Agriculture

The CDA Approved Seed Certification Seed Process:

Breeder:

**Research & Development** - controlled by the Breeder.

**Pre-Breeder seed** - controlled by the Breeder.

**Breeder seed** - distinct, uniform and stable variety, controlled by the Breeder.
The CDA Approved Seed Certification Seed Process:

Colorado Seed Growers Association:

Certification levels, AOSCA standards for isolation and purity.

- **Foundation seed**, grown by a CSGA member. *Foundation class can be used to grow Foundation, Registered and Certified classes.*

- **Registered seed**, grown by a CSGA member. *Registered class is used to grow certified seed only*

- *Certified seed*, grown from Foundation or Registered class by a CSGA member.
<table>
<thead>
<tr>
<th>Certified</th>
<th>Open Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Abates Crop Destruction</strong></td>
<td><strong>Possible Crop Destruction</strong></td>
</tr>
<tr>
<td><strong>Varietal Purity</strong></td>
<td><strong>Variety Genetic Drift</strong></td>
</tr>
<tr>
<td><strong>Weed &amp; Disease Free Seed</strong></td>
<td><strong>%THC Testing Costs</strong></td>
</tr>
<tr>
<td><strong>Viability (maximize genetic potential)</strong></td>
<td><strong>Certified Seed may not be for you if:</strong></td>
</tr>
<tr>
<td><strong>Colorado State Seed Lab Purity &amp; Germination Analysis</strong></td>
<td>- OK with THC testing cost</td>
</tr>
<tr>
<td></td>
<td>- Clonal/Feminized Seed Grower - High CBD %</td>
</tr>
</tbody>
</table>
Industrial Hemp Certified Seed Program

The Colorado Department of Agricultures Approved Industrial Hemp Certified Seed program is a four-part program in that in order for a variety to be CDA approved it must:

Variety Approval

Distinct, uniform and stable over generations

Step One:
1) Be accepted by the Hemp Variety Review Board (HVRB) CO VRB organized by Rick Novak (CSU, Director of Colorado Seed Programs)

- Prove ownership! Marketing and/or maintainer rights!

- Creatively describe your breeding story for proof of ownership for new proprietary items.
The VRB reviews documentation it does not investigate claims!

Step Two: for CDA Approved Certified Seed

2) Pass the CDA’s state wide variety validation trial for delta-9-tetrahydrocannabinol (THC) level of at or below 0.3 %THC concentration on a dry weight basis and fit the variety description described by the applicant.
Step Three: for CDA Approved Certified Seed

3) After acceptance by the VRB and passing the CDA’s state wide trial the seed variety must be produced by the Colorado Seed Growers Association (CSGA) according to the Association of Official Seed Certifying Agencies, (AOSCA) standards.

Or for OECD sourced, officially tagged by a CSGA member.

- All seed variety lots in CSGA production fields, will also be tested and may be retested in the CDA state wide validation trial.
Step Four of Four

CDA Approved seed varieties will be bag tagged with CDA Approved tags that cross reference the CDA Approved seed certifying agencies tag for specific production lots.

CDA role according to C.R.S. 35-61-104.5:

- Administer a certified seed program that identifies seeds that produce industrial hemp.
- The department may import seeds to develop the certified seed program.

- The CDA does not sell seed!
Commercial CDA Approved Certified Seed

Is sold to the grower; certified seed may not be harvested for seed purposes or used for cloning or any form of propagation. In the future with CDA Approved Certified Seed the price for seed should approach global seed prices.

If replanted from harvested certified seed, it is not certified seed and not CDA Approved Certified Seed and may be in violation of your purchase agreement.

Commercial acres planted from CDA Approved seed will be verified from planting records, bag tags and seed invoices along with field observations.

Registrants who plant CDA Approved Certified Seed will be subject to minimal sampling.
2016 CDA Approved Varieties

Eletta Campana, Source: Schiavi Seeds (Fiber variety)

Fibranova, Source: Schiavi Seeds (Fiber variety)

Helena, Source: Schiavi Seeds (Dual purpose: Grain/Fiber)
2017 CDA Approved Varieties

**Beniko**, Source: Schiavi Seeds (Dual purpose: Grain/Fiber)

**Bialobrzeskie**, Source: International Hemp Solutions/ Bija (Dual purpose: Grain/Fiber)

**Elite**, Source: New West Genetics, Ft. Collins, CO (Dual purpose: Grain/Fiber)

**Tygra**, Source: Schiavi Seeds (Dual purpose: Grain/Fiber)
<table>
<thead>
<tr>
<th>#</th>
<th>Year</th>
<th>CDA</th>
<th>Variety</th>
<th>Breeding Company</th>
<th>Origin</th>
<th>Flowering</th>
<th>Use</th>
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<tbody>
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<td>1</td>
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<td></td>
<td>Eletta Campana</td>
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<td>Fiber</td>
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<td>2</td>
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<td>Fiber</td>
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<tr>
<td>3</td>
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<td>Serbia</td>
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<td>Grain</td>
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<tr>
<td>4</td>
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<td>The Polish Institute of Natural Fibers, Poland</td>
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<td>Fiber</td>
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<tr>
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<td>New West Genetics (Ft. Collins, CO):</td>
<td>USA</td>
<td>Dioecious</td>
<td>Grain</td>
</tr>
</tbody>
</table>
In order for any seed to be recognized by the CDA as certified it must be tagged with official CDA Approved tags.

Contacts:

https://www.schiaviseeds.com

https://www.newwestgenetics.com

https://www.bijahemp.com
Colorado Seed Act
8 CCR 1203-6

“Engaged in the business of conditioning seed” means: conditioning seed in Colorado in return for money or anything of value, including goods or services.

“Engaged in the business of labeling seed” means: labeling seed for sale in Colorado in return for money or anything of value, including goods or services.

The term “farmer seed labeler” is limited to those persons who label only the seed produced for sale in Colorado on property in Colorado owned or rented by such person or such person's employer. Any person who labels, in addition to seed produced for sale in Colorado on property in Colorado owned or rented by such person or such person's employer, other seed is a “seed labeler”.
The term “misbranded” shall apply:
To any seed if it’s labeling bears any statement, design, or graphic representation relative thereto or to its ingredients which is false or misleading in any particular;

To any seed: If it is an imitation of or is offered for sale under the name of another seed; if any word, statement, or other information required by this article or rules adopted under this article to appear on the labeling is not prominently placed thereon with such conspicuousness, as compared with other words, statements, designs, or graphic matter in the labeling, and in such terms as to render it likely to be read and understood by the ordinary individual under customary conditions of purchase and use;

Fines for misbranding include license denial, cease and desist orders with fines punishable up to $2,500 per incident.
Program Contacts

Maureen West
Program Manager

Jessica Quinn
Administration

Terry Moran
Certified Seed Specialist

industrialhemp@state.co.us
Thank You!

Questions?

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303-869-9052