

REGULATORY ROLES IN *CANNABIS SP.*

NEW MEXICO DEPARTMENT OF AGRICULTURE

Brad Lewis

Division Director

New Mexico Department of Agriculture

New Mexico State University

I. OUTLINE

- I. Regulatory Primer
- II. Weigh Scales
- III. Seed Sales
- IV. Plant Nursery
- V. Hemp Breeder
- VI. Pesticides
- VII. Laboratory Services

Background

- Hemp and cannabis considered slang words for *Cannabis sp.* cultivars/plants (i.e., hot vs mild green chile)
- Discernment between the two is only through the concentration of THC by definitions (only recently uniformity among states)
- In NMDA material, *Cannabis sp.* inclusive of both hemp & cannabis

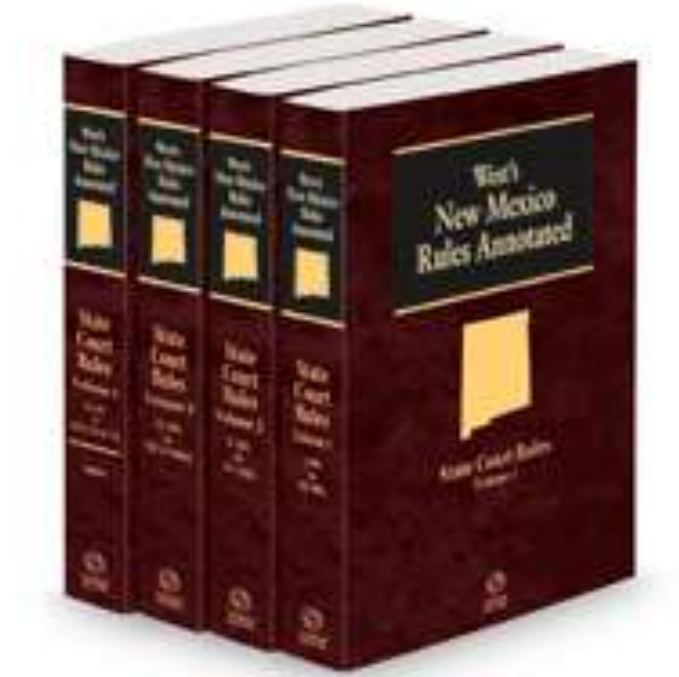
I. REGULATIONS (statutes/rules)

- A) Even playing field for the industry
- B) Protection (consumer/environmental/employee)
- C) Regulatory limits for state agencies
- D) Consistency between administrations
- E) Promulgated after benefit/cost analysis (legislative)



I. PRIMARY STATUTORY COMPONENTS

- A. Scope
 who, what
- B. Directives
 all, everyone
- C. Authorities
 may, allowed



I. PRIMARY SOURCES OF STATUTES/RULES

A. New Mexico Secretary of State (recently signed bills)

<https://www.sos.state.nm.us/>

B. NM One Source (search engine statutes & rules)

<https://nmonesource.com>

C. Agency Web Pages



New Mexico
Compilation Commission

Official Legal Publisher of State of New Mexico

II. WEIGH SCALES

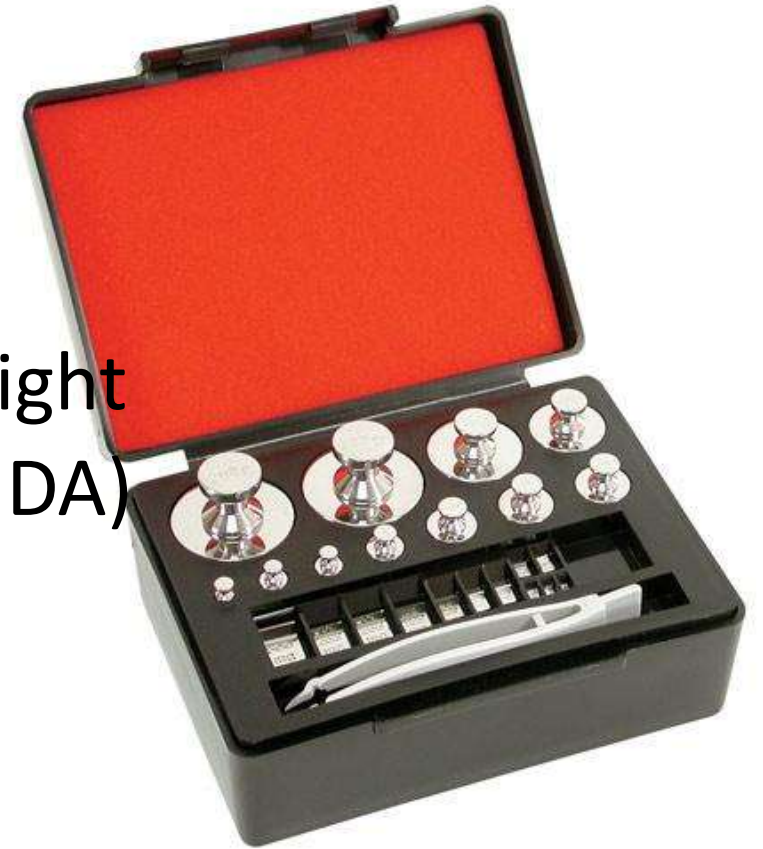
- **Statute:** STANDARDS WEIGHTS AND MEASURES (15-17-1)
- **Directive:** Test all weighing devices used in trade, annually, for compliance with accuracy requirements (no charge)
- **Authorities:**
 - Enter business for purpose of checking scales
 - Remove scales from service for non-compliance
 - Collect fees for services
- **Services:**
 - Receive weights from industry to validate
 - Address customer complaints regarding weighed product (packaged or not)

Recommend Class II scales



II. WEIGH SCALES

- Considerations
 - Buy a set of weights (\$400-\$900)
 - Ensure scales are appropriate for the weight
 - Periodically have weights calibrated (NMDA)



III. SEED SALES (for planting)

- Statute: SEED LAW (76-10-1)
- Directive: Ensure agricultural seed sold meets standards (kind, purity, germination, other language as added by seller)
- Authorities:
 - Enter businesses for the purpose of ensuring seed packets meet requirements
 - Remove from sale non-compliant seed packets
 - Collect fees for specific services
- Services:
 - Receive *Cannabis sp.* seed for testing (kind, purity, germination)
 - 500 gram sample ???

III. SEED SALES (for planting)

Label Requirements

- Kind name
- Variety name
- Pure seed percentage
- Other crop seed percentage
- Inert matter percentage
- Weed seed percentage
- Noxious-weed seed = number per pound
- Germination percentage
- Dormant seed percentage
- Test date (good for 9 months)
- Lot number
- Interstate shippers complete name and address
- Inoculated seed = month and year of expiration
- Treatment = name of substance used

III. SEED SALES (for planting) Reality Check

- NMDA only Certified Seed Analystist in the state
- 500 gram sample requirement by NMDA is equal to approximately 35,000 seed

Do it your self?



IV. Plant Nursery

- Statute: Plant Protection Act (76-5-11)
- Directive: Individuals engaged in the growing, reselling of viable plants required to possess a nursery license (clones, seedlings)
- Authorities:
 - Enter businesses for the purpose of ensuring nursery stock meets requirements
 - Remove from sale non-compliant nursery stock (plant pest infested)
 - Collect fees for specific services (phytosanitary certificates)

IV. Plant Nursery (regulated same as box store)



IV. Plant Nursery (survey results diseases)

- Pythium wilt (damping off)
- Fusarium
- **Powdery/Downey Mildews**
- White Mold
- Virus (TMV,BCT)



IV. Plant Nursery (survey results insects)

- Whiteflies
- Aphids
- Leafhopper
- Spider mites
- Thrips
- Corn Earworm
- Grasshoppers



IV. Plant Nursery (survey results weeds)

- Kochia
- Sandbur
- Pigweed
- Bindweed



V. Hemp Breeder

- Statute: New Mexico Hemp Research and Development Fund (76-24-11)
- Directive: License individuals engaged in the breeding of new hemp varieties that may poses viable plants less than 5.0% total THC
- Authorities:
 - Enter businesses for the purpose of ensuring nursery stock meets requirements
 - Destroy non-compliant breeding nursery stock
 - Collect fees for specific services (phytosanitary certificates)



V. HEMP BREEDER (Restrictions)

- Indoor grow only
- Security
- Each plant tracked and disposed of using NMDA approved method
- Only hemp-compliant plants available to the public
- Transfer of licensed breeding stock only to other individuals holding a Special Hemp Breeding License etc.
- Breeding stock limited to less than 5.0% total THC
- Must also possess a Continuous Hemp Production License, and Plant Protection License, others as required



VI. PESTICIDES

- Statute: Pesticide Control Act (76-4-1)
- Directive: All pesticides vetted and registered with NMDA. Issue pesticide applicator licenses for those using restricted use products, agricultural applications (nurseries) or commercial business.
- Authorities:
 - Investigate public complaints related to possible misuse of pesticides
 - Remove and test plant material for compliance
 - Collect fees for specific services
- Services:
 - Respond to requests for new pesticide registrations



VI. PESTICIDES

- Reasons to use state registered pesticides only
 - It's the law
 - Consumer safety
 - Employee safety
 - Crop damage/loss
 - Liability

The Atlantic

The Wild West of Marijuana Pesticides

A side effect of a federal drug law has left legal pot farmers without any approved pesticides—and as a result, many have turned to harmful chemicals to protect their crops.

The Atlantic (cont.)

Of particular concern were the concentrates used to make candies, baked goods, and other edibles.

Examples include concentrate samples with levels of carbaryl—a chemical typically used on fruits, vegetables, and ornamental plants—as high as 415 parts per million (by comparison, the tolerance for carbaryl on blueberries is three parts per million).

The Atlantic (cont.)

Myclobutanil, a fungicide used to fight powdery mildew on vegetables, fruits, and leafy greens, was found at eight parts per million in pot flowers, and between 44 and 392 parts per million in concentrates (levels allowed on food items usually range from 0.1 to 10 parts per million).



VI. PESTICIDES

(Registration for *Cannabis sp.* unique)

- New Mexico registers pesticides for *Cannabis sp.* based on:
 - EPA considers products Minimum Risk Products (25B Products)
 - EPA requires residue tolerances and label language is sufficient broad to include *Cannabis sp.*
 - EPA requires residue tolerances and label language specifically includes 'Hemp'

VI. PESTICIDES

(New Mexico registered pesticides for *Cannabis sp.*)

- Fungicides – 7 active ingredients
- Insecticides – 13 active ingredients
- Herbicides – 1 active ingredient
- Growth Regulators – 1 active ingredient

VI. PESTICIDES

(Active Ingredients Registered in NM-Fungicides)

- Potassium Bicarbonate
- *Bacillus amyloliquefaciens*
- *Bacillus mycoides*
- *Reynoutria sachalinesis* extract
- Thyme oil
- Citric Acid
- Potassium Sorbate

VI. PESTICIDES

(Active Ingredients Registered in NM-Insecticides)

- Piperonyl Butoxide
- Helicoverpa armigera nucleopolyhedrovirus
- Isaria fumosorosea
- Polyhedral occlusion bodies of the nuclear polyhedrosis virus of *Helicoverpa zea*
- Fats and glyceridic oils, margosa
- Azadirachtin (neem)
- GS-omega/kappa-Hctx-Hv1a
- Bacillus thuringiensis
- Cinnamaldehyde
- Geraniol, Peppermint Oil, Rosemary Oil, Clove Oil

VI. PESTICIDES

(Active Ingredients Registered in NM-Herbicides)

- Caprylic Acid, Capric Acid

VI. PESTICIDES

(Active Ingredients Registered in NM-growth regulator)

- Indole-3-butyric Acid

VI. PESTICIDES

- Registrations of pesticides for *Cannabis sp.* lagging
 - Separate EPA Crop Group
 - Use as a 'smokable' complicates registration process
 - Requires manufacturers support
 - Propensity to uptake soil applied chemistries may complicate registration
 - Registration cost to manufacturer may exceed several million \$
 - Registration through IR4 (many products)

VI. PESTICIDES

(Questions)

- Is it registered in New Mexico for *Cannabis sp.* ?
- Is the pesticide approved by your extractor?
- Is the pesticide approved by your buyer (vape)?
- Does the label differentiate vegetative/flowering?
- Is the OMRI approved pesticide also approved in New Mexico

VI. NMDA Services

- No THC analysis at this time (private laboratories)
- No cannabinoid or terpene profiles (private laboratories)
- Anticipate screening for pesticides (if private lab services not available)
- Scales certified annually (no cost)
- Weights certified (service cost)
- Perform germination tests (but not practical at this time)
- Identify plant pest (NMSU/NMDA)
- Investigate possible pesticide misuse (no charge)

Regulatory as Marketing Tools

Market Expansion to New Clients/Reliable and Safe Products/Price Stability

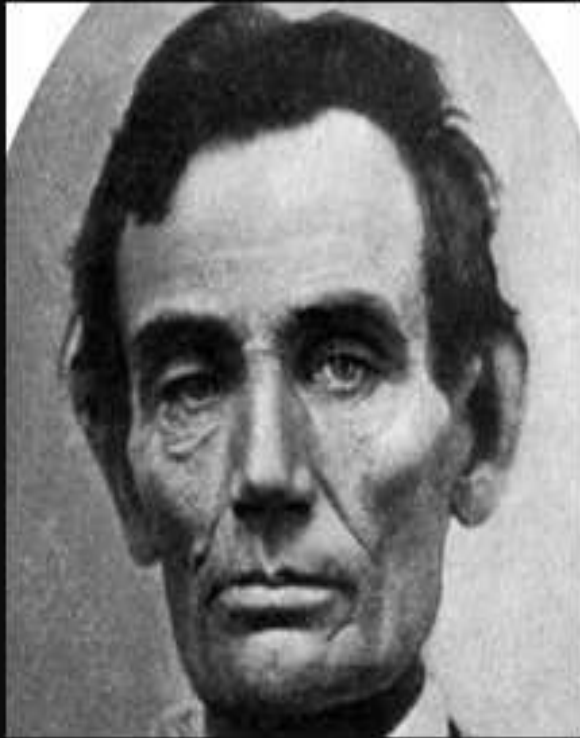
- Scales with state certification seals
- Complete labels for seed packets/bulk sales
- Consider listing feminization percentages for seed and clones
- Development of production standards

Certification for organic production on state/industry level

Pesticide-free certification state/industry level



Abraham Lincoln



Two of my favorite things are sitting on my front porch smoking a pipe of sweet hemp, and playing my Hohner harmonica.

QUESTIONS

