

Industrial Hemp Advisory Board (IHAB) Meeting
California Department of Food and Agriculture (CDFA)

1220 N Street, Auditorium
Sacramento, CA 95814

Thursday, June 29, 2017
9:00 AM – 1:00 PM

Board Members

Eric Carlson
Rick Gurrola
Matt McClain
Valerie Mellano
Tom Pires
David Robinson
John Roulac
Lawrence Serbin
Richard Soria

CDFA & Guests

G. V. Ayers
Matt Butterworth
Gary Conover
Crystal D'Souza
Jolene Dessert
Tony deVeyra
Marie Giegel
Patrick Goggin
John Heaton
David Hopkins
Allen Hopper
Eliot Howard
Kevin Johnson
Joshua Kress
Joe Livaich
Erin Lovig

Fred Marshall
Mike McGuire
Carlo Mercado
Jered Micheli
Alex Mkandawire
Drew Moss
Carl Pfeiffer
Justin Phan
Veronica Pardo
Taylor Roschen
Duane Schnabel
Angela Torrens
Christine Vana
Jere Visalli
Cathy Vue

1. Roll Call and Opening Remarks

Meeting called to order at 9:04 AM by Joshua Kress, Program Supervisor of the CDFA Nursery, Seed, and Cotton Program. Kress briefly welcomed attendees, and board members and Program staff provided self-introductions.

Kress reviewed the agenda and corresponding handouts, and asked if there were any corrections or changes to the order agenda items. No changes were requested.

2. Forms and Information for New Members

Each member was provided with an Oath of Office, and was instructed to sign and return the oath to Program staff.

Each member was provided with a Guide to the Bagley-Keene Open Meeting Act for reference. The Bagley-Keene Open Meeting Act governs the meetings and actions of state boards, such as the IHAB, including providing for public notices, access, and opportunity for comments.

Kress reminded the Board that completion of the Statement of Economic Interests (Form 700) was to be performed electronically. All members should have been contacted by the CDFA Filing Officer. The Form 700 must be filed by each member within 30 days of appointment, within 30 days of leaving office, and annually by April 1.

Kress also reminded the Board that Ethics Training was to be performed online, and must be completed every two years. All members should have been provided login information by the CDFA Filing Officer. Kress instructed members to send signed copies of the certificates of completion to Cathy Vue.

Kress informed the Board that the Form 700 and Ethics Training are requirements of the Political Reform Act of 1974 (Prop. 9; Government Code Sections 81000, et seq.). Failure to comply with the requirements of this Act may result in penalty action from the Department and/or the Fair Political Practices Commission.

Each member was provided with a Payee Data Record Form (Std. 204), to be completed by those members who intended to request reimbursement for travel expenses. Kress informed the Board that the Payee Data Record Form must be on file at CDFA prior to processing any travel reimbursement for board meetings.

Kress instructed any members requesting reimbursement for travel expenses for this meeting to submit receipts for lodging and transportation to Cathy Vue, and she would prepare a claim for the member's signature and processing. All reimbursements would be made in accordance with CalHR rules, including maximum lodging rates by county (e.g., \$95 plus tax for Sacramento County). A CDFA Travel Guide for Board Members, outlining these rules, had been provided to each member in advance of the meeting.

There were no motions or public comments regarding this item.

3. Brief Program Background, Overview of Existing Program Statute, and Update on Proposed/Pending Legislation

Kress gave a brief overview of California Law relating to industrial hemp (attachment), highlighting:

- California Industrial Hemp Farming Act
 - Established Division 24, Sections 81000-81010, of the California Food and Agriculture Code (FAC)
 - Signed by Governor on September 27, 2013
 - The law was not operative until the Adult Use of Marijuana Act (Prop. 64, November 2016) made the Division effective on January 1, 2017
- The definition of "industrial hemp"
 - Located in California Health and Safety Code (HSC) Section 11018.5
- FAC Division 24
 - Establishes an Industrial Hemp Advisory Board (IHAB)
 - Requires registration with the County Agricultural Commissioner (CAC)
 - Requires use of approved cultivars for commercial cultivation

- Sets restrictions for plantings, sets testing requirements, and requires destruction of plants that test at greater than 0.3% THC
- Exempts members of an established agricultural research institution from most requirements in the Division
- Includes reporting requirements for the Attorney General and the Board
- Proposed or pending legislation
 - Trailer bill regarding cannabis, SB 94, signed by the Governor on June 27, 2017; removes subsection (b) from Section 81010
- California Industrial Hemp Program
 - Managed by the CDFA Nursery, Seed, and Cotton Program
 - Program general inbox: industrialhemp@cdfa.ca.gov
 - Program home page: <https://www.cdfa.ca.gov/plant/industrialhemp/>

There were no motions regarding this item.

There was one question from the public asking when meeting handouts would be made available. Kress stated that all meeting handouts were available upon request, and that meeting minutes with all handouts would be posted online after Board approval at the next meeting.

4. **Brief Overview of Federal Status for Industrial Hemp**

Patrick Goggin of the Hemp Industries Association provided a brief overview of the federal status of industrial hemp. Goggin noted that the federal Industrial Hemp Farming Act had been introduced into Congress multiple times in recent years. Each time, the Act was not brought up for a committee hearing. However, Congress had made some progress regarding industrial hemp through amendments and other pieces of the legislation, including the Farm Bill and various appropriation Acts.

Goggin reviewed the most recent federal legislation regarding industrial hemp:

- Agricultural Act of 2014 (“Farm Bill”), Section 7606 (attachment)
 - Signed into law on February 7, 2014.
 - Established United States Code (U.S.C.), Title 7, Section 5940: Legitimacy of Industrial Hemp Research.
 - Authorized establishment of industrial hemp research and pilot programs to be established in states that passed hemp legislation.
 - Authorized state departments of agriculture to engage in pilot programs, and institutions of higher education to conduct research.
 - In practice, private farmers assisted state departments of agriculture in carrying out these pilot programs, first through Memorandums of Understanding (e.g., Kentucky), and later through Registration programs (e.g., Colorado).
 - Defined industrial hemp as separate from marijuana.
 - Defined industrial hemp as all parts of the plant, including flowers and leaves.
 - Defined industrial hemp as containing less than 0.3 % THC in the dry parts of the plant.

- Total acreage of industrial hemp planted nationwide in state pilot programs was 10,000 – 12,000 acres in 2016.
- Consolidated Appropriations Act of 2016 (“Omnibus Appropriations Act”), Section 763 (attachment)
 - Signed into law on December 18, 2015.
 - Prohibited funds appropriated by Congress from being used in contravention of 7 U.S.C. § 5940.
 - Established that federal agencies could not use such funds to prohibit the transportation, processing, sale, or use of industrial hemp grown or cultivated in accordance with 7 U.S.C. § 5940, within or outside of the state in which it was grown.
 - This amendment had been maintained through continuing resolutions, including in the Consolidated Appropriations Act of 2017, signed into law on May 5, 2017. This Act also added in Section 538 that the Department of Justice or the Drug Enforcement Administration were specifically prohibited from using funds in contravention of 7 U.S.C. § 5940.
- Industrial Hemp Farming Act of 2015 (attachment)
 - Was the most recent iteration of the federal Industrial Hemp Farming Act.
 - Would have amended the Control Substances Act by defining industrial hemp and excluding it from marijuana.
 - Did not get to hearing in either house of Congress, but received 75 cosponsors in the House of Representatives and 16 cosponsors in the Senate.

Goggin noted that he expected that a new version of the Industrial Hemp Farming Act would be introduced in July 2017, possibly by Representative James Comer (R-KY-1). Possible changes to prior versions of the legislation could include increasing the federal limit on THC content and delegating authority to legislate industrial hemp to the states.

Goggin also noted that the U.S. Drug Enforcement Administration had recently targeted cannabidiol (CBD) produced from industrial hemp. Goggin stated that Senator Mitch McConnell (R-KY) had championed industrial hemp, and had indicated that this issue could be addressed in the Senate’s version of the bill.

David Robinson asked if there had been any law enforcement actions against anyone in compliance with state law regarding industrial hemp since 2015. Goggin responded that the U.S. Drug Enforcement Administration (DEA) intercepted industrial hemp seeds going into Kentucky, which led to a lawsuit. The case ended with a mediated resolution without a ruling, which ultimately allowed the Kentucky Department of Agriculture to obtain the seeds. Subsequent to this case, DEA has taken the position to require and process import permits for industrial hemp seeds. Other enforcements have occurred at the state-level, in conjunction with federal law enforcement.

Robinson also asked about the ability of growers to deposit revenue from sales of industrial hemp at banks. Goggin responded that this was often an issue, and that Rep. Comer had indicated that this issue could be addressed in legislation.

There were no motions or public comments regarding this item.

5. Proposal of Fee Structure(s) for Registration, and Method(s) of Fee Remittance

Kress reviewed the sections of the Food and Agricultural Code (FAC) requiring establishment of and referring to registration and renewal fees, and presented an Industrial Hemp Registration Fee Analysis (attachment). The analysis included:

- A comparison of existing fees, including:
 - Proposed fees for participation in the CDFA CalCannabis Cultivation Licensing program, and
 - Fees charged by selected states with established industrial hemp programs: Colorado, Kentucky, Nevada, Oregon, and Washington.
- An estimate of the scope of participation in California of 150-200 participants for the first year of registration, based on the reported participation in the industrial hemp programs in Colorado and Kentucky.
- An estimate of the Program's annual costs of \$36,656, as established in the Program's proposed budget for Fiscal Year 2017/18.
- An overview of other costs to take into consideration, including the county agricultural commissioners' costs, other regulatory activities not provided for under current law that may be necessary for administration/enforcement of the law, and direct costs of participation for growers.
- A final cost estimate to the Program of \$488.74 per participant for a two-year registration.

Kress noted that the budget presented for FY 2017/18 did not include repayment of expenditures incurred during FY 2016/17.

Rick Gurrola stated that each county's costs would vary based on who conducts program activities, whether it is the agricultural commissioner, a deputy, a program aid, etc. Gurrola noted that this varies based on the size of the county; for example, the rate for Modoc County would likely differ from that for Orange County.

Duane Schnabel added that CDFA began to accrue expenditures for this Program beginning on January 1, 2017, and that the Program was borrowing funds from general Agriculture Fund appropriations. Schnabel noted that the Program would continue to track these expenditures, and that these funds would need to be paid back as the Program began collecting fees. Schnabel also noted that the Program would continue to make adjustments to the budget as the Program moved forward and more information was available.

Regarding the potential scope of cultivation in California, John Roulac stated that prospective growers should be aware of likely challenges and issues regarding the cultivation of industrial hemp for seeds and fiber. Roulac noted that there was great enthusiasm among farmers, but that California lacked the infrastructure needed for handling and processing hemp seeds, such as seed cleaning facilities.

Eric Carlson stated that there should be a way that the Board and CDFA could standardize fees for all counties across California. Carlson recommended looking at Nevada's use of a fee per pound on imported seed. Carlson stated that California was not likely to become the largest hemp-growing state in the country, but that it had an opportunity to be a competitive player in manufacturing and high-end processing.

Matt McClain recommended looking at the survey that CalCannabis Cultivation Licensing conducted for prospective licensees, as counties that showed limited interest in producing medical cannabis might have an opportunity for hemp production. McClain also asked if fees would be collected by the state or county, and if there would be licensing procedures.

Kress noted that FAC § 81005 required CDFA to establish a licensing and renewal fee, but the law did not go into detail. The law also stated that the fees would be charged and collected by the county agricultural commissioners, and then the commissioners would send fees to CDFA. The law also required CDFA and the commissioners to recover their costs.

McClain stated that the estimated number of applicants was low. He estimated that there would likely be 250-300 participants, and recommended a bi-annual fee of \$500 with an application fee of \$150.

McClain stated that he was concerned with activities relating to established agricultural research institutions. Such institutions were allowed under California law to proceed with growing industrial hemp, but that there was no guidelines for how to regulate.

Lawrence Serbin stated that depending on what the farmers grow for (i.e., seed, fiber, or flower) there would be a different level of THC involved, and wondered when THC tests should be conducted. For example, should cultivators who plan to harvest prior the plants to flowering save a portion of the planting until it flowers in order to test the THC level, or should the full planting instead be sampled and tested in the field prior to harvest?

Carlson recommended not establishing testing fees based on inspectors' time and cost, as had been done in other states (e.g., Nevada charged \$50 hour for staff traveling across the state to collect samples). Carlson stated that testing may not be necessary as long as certified seed is used, cutting down on costs for both growers and the county agricultural commissioners. Carlson added that approximately 60% of the industrial hemp crop in Colorado in 2016 had to be destroyed due to THC levels over the 0.3% limit, and he associated this with the use of non-certified seeds.

Kress noted that the testing required in California law was not performed by CDFA or the county agricultural commissioner. FAC § 81006 required registered growers to submit samples to a laboratory registered with the federal Drug Enforcement Administration.

Any proposed changes or clarifications to the THC testing requirements could be discussed at future meetings for further guidance and recommendation from the Board.

Carlson stated that the availability and abundance of certified seed would greatly affect the number of registered growers in California, and estimated that if sufficient seed was available there could be over 500 registered growers by 2018.

Kress noted that the registration fee structure, when established, would need to be set in regulation in accordance with the Administrative Procedures Act. After recommendation from the Board, the Program would prepare and submit a rulemaking package to establish the necessary regulation. Depending on the complexity of the rule, number of comments received, and if any changes to the regulations are made during the process, the rulemaking process generally takes 6-12 months from approval at CDFA to approval by the Office of Administrative Law and establishment in the California Code of Regulations.

Kress requested public comments regarding this item.

Goggin expressed his concern about a timeline of six to twelve months to establish the fee structure, and was hopeful that the process could be expedited in order for the industry to begin cultivation in 2017. Goggin stated that farming of industrial hemp could occur throughout the state, as there were not any limitations established by individual counties. Goggin noted that farmers were adamant when this legislation was introduced that this was not a license fee because farmers cannot be required to have a license to farm. Goggin also recommended keeping the fees low to not create barriers for entry into industrial hemp.

Allen Hopper echoed Goggin's concern on the length of the rulemaking timeline. Hopper suggested allowing local governments to register growers on a temporary pilot basis, pending full implementation of the regulations. Hopper urged the Board to think creatively to find ways to authorize local governments who were ready to begin registering growers. Hopper suggested that growers could post a bond that would allow the government to collect the necessary fees once the amount was set.

Crystal D'Souza, Staff Counsel for CDFA, clarified that the legality of the ability to grow industrial hemp in California was guided by the California Industrial Hemp Farming Act in Division 24 of the Food and Agricultural Code, and that it required registration. D'Souza also clarified that the federal authorization for the cultivation of industrial hemp was restricted to agricultural research institutions and pilot programs, and that neither of these were covered by Division 24, except for the exemptions provided to established agricultural research institutions.

Veronica Pardo of the California Refuse Recycling Council stated that she was concerned with the process for the destruction of industrial hemp that does not meet testing requirements. Pardo noted the cannabis waste management requirements in the proposed

medical cannabis cultivation regulations, as well as diversion targets for organic materials for California landfills.

Carlson responded that it was not logistically possible to dispose of an entire planting in a landfill, and that growers would generally simply plow the crop under. Carlson noted that hemp was a nitrogen intensive crop, and was beneficial as a soil amendment. Carlson stated that the waste management processes used for cannabis would not be necessary for hemp, and he added that industrial hemp and cannabis were different crops by definition and conversations regarding the two crops should not be intertwined.

G. V. Ayers of Gentle Rivers Consulting asked if it was possible for CDFA to establish the fee regulation through the emergency rulemaking process.

Kress responded that CDFA could not expedite any regulations beyond the scope of the authority provided in the law, and that the Program would have to consult with CDFA Counsel on whether the law provided authority for emergency rulemaking.

McClain stated that it had taken many years to arrive at this point, and he cautioned against rushing to the finish line to expedite local production. McClain recommended that the Board and CDFA seek to establish regulations on the same timeline as cannabis cultivation regulations to help avoid any potential barriers to entry that may arise due to cross-pollination concerns and distance requirements between the crops.

Goggin clarified that hemp farming is allowed throughout the state, but that it does require registration. Goggin recommended ensuring that the Program is compliant with Section 7606 of the Agricultural Act of 2014 in order to protect growers and ensure that hemp produced in California can enter interstate commerce, and that CDFA seek any legislation it feels necessary in order to define the Program as an “agricultural pilot program” to mirror federal law.

Joe Livaich encouraged the Board to look at the costs and benefits related to barriers to entry for small growers.

There were no motions regarding this item.

6. Current List of Approved Seed Cultivars (as provided in FAC § 81002)

Kress noted that FAC § 81002 required the Board and CDFA to promulgate regulations establishing the methodology and procedures for adding, amending, or removing seed cultivars from the approved list found in that section. These regulations for the methodology and procedures would not be subject to the regular rulemaking process, including review by the Office of Administrative Law. After the process outlined in this section, CDFA would submit the regulations to be filed and published upon Board recommendation.

Alex Mkandawire of the California Crop Improvement Association (CCIA) presented an overview of industrial hemp seed certification (attachment). Mkandawire noted that in

order to provide growers with high quality seeds, the State of California established a system for seed certification in the California Seed Law that provides for seeds with high purity, high germination, and freedom from seed-borne pathogens and weed seeds. The list of varieties that may be certified, and the standards under which those crops must be grown, are approved by CCIA's elected Board of Directors. New varieties may be recommended for certification via:

- CCIA's Certification Technical Committee (CTC)
 - Application submitted by seed breeder; CTC reviews and makes a recommendation to the CCIA Board
- Member agencies of the Association of Official Seed Certifying Agencies (AOSCA)
 - AOSCA consists of agencies in 44 U.S. states, as well as agencies in Australia, Argentina, Brazil, Canada, Chile, New Zealand, and South Africa
 - CCIA may approve any variety that is already approved for certification by any other AOSCA member agency
 - Canada's list for industrial hemp includes 38 approved varieties, all of which meet the Canada's standard of less than 0.3% THC
- AOSCA Industrial Hemp Variety Review Board
 - The variety review boards for each crop receive and review applications for certification of varieties from seed breeders and make recommendations to all AOSCA member agencies
- Organization for Economic Co-operation and Development (OECD) Variety List
 - OECD was established in Europe with assistance from the U.S. after World War II; now has 58 member countries throughout the world
 - CCIA may approve any variety that is already approved for certification and listed by OECD
 - OECD's list for industrial hemp includes varieties that test both below and above the 0.3% THC threshold

Certified seeds are subject to seed and field standards at each level of certification. In order to establish certification of industrial hemp seed in California, CCIA would adopt standards that meet or exceed the national standards set by AOSCA. These standards would include land requirements, inspection and testing, isolation distances, and germination and purity thresholds.

CCIA's certification process includes:

- Application
 - Provides required information regarding seeds and planting location for review and approval prior to planting
- Field Inspection
 - Inspection performed to confirm compliance with established standards
 - Field inspection reports are posted online
- Harvesting
 - Fields must be inspected prior to harvesting by a representative of the county agricultural commissioner

- If a field is not inspected prior to harvest, the seeds produced from that field cannot be certified
- Seed Movement
 - Applicant must maintain the identity and genetic purity of the crop during harvest and movement
 - Certified seeds must be accompanied by an Inter-county Permit for movement within California, or an Inter-state Transfer of Seed Certificate for movement to another state or AOSCA country, issued by the county agricultural commissioner
- Seed Cleaning
 - Only CCIA approved and accredited conditioners with proper equipment may condition seed in California
 - Conditioning is subject to supervision by the county agricultural commissioner
 - The conditioner may only use approved processes, and must maintain the identity of the seed throughout
- Sampling
 - Seed sampling must be supervised by the county agricultural commissioner
 - To help ensure uniform collection of representative samples, CCIA administers the Certified Seed Sampler Program, established and overseen by the Association of American Seed Control Officials' (AASCO)
- Testing and Certification
 - Laboratory tests seeds for germination and purity, and sends results to seed cleaner
 - Results provided to CCIA to confirm that the seed meets the crop's certification standard and to issue a Seed Inspection Report
- Tagging and Audit
 - CCIA reviews all reports and documents, and audits the use of any certification tags

Mkandawire recommended that industrial hemp seeds planted in California should be certified seeds, and echoed Carlson's earlier comment that the use of certified seed could help prevent the destruction of crops by ensuring that they meet the 0.3% THC content requirement.

Serbin asked if seed certification performed by CCIA must be completely grown and processed in California, or parts of the certification process could be performed in other states.

Mkandawire responded that CCIA certified seeds produced in California, but that varieties produced in California could also be accepted for certification in other states, and that CCIA would ensure the addition of any California varieties to the AOSCA and OECD lists. Mkandawire continued that seeds produced in one state and then moved under an Inter-State Transfer for Seed Certificate to be processed in another would receive a joint certification from the two certifying agencies.

Soria asked if the germination rate of 80% shown in Mkandawire's presentation was typical for industrial hemp.

Mkandawire responded that 80% was the minimum standard agreed upon by AOSCA member agencies. Mkandawire noted that California could choose to set a higher minimum standard for germination or purity when establishing the certification standards for industrial hemp in California. Mkandawire also noted that the AOSCA standards did not require isolation of certified industrial hemp plantings from marijuana, and that CCIA would look at including isolation distances from marijuana plantings when establishing the certification standards for California.

Roulac also echoed the recommendation to require the use certified seeds. Roulac added that industrial hemp varieties certified as 0.3% THC or lower in Canada could contain a higher level of THC content in California due to differences in daylight hours, and recommended establishing trials growing varieties from different parts of the world to determine which would grow best and meet the requirements in California.

Carlson added that in his experience very few of the Canadian varieties grew successfully below the 40th parallel north, and recommended looking at Australian and European varieties for planting in California.

McClain asked how California could establish plantings using only certified seed, as California had no certified seed production at the time. McClain also asked about the role of agricultural research institutions and how they could partner with CCIA.

Mkandawire responded that it would take time to build up sufficient seed production in California, and echoed McClain's earlier comment that California should proceed carefully to ensure the success of the industry. Mkandawire added that CCIA regularly worked with researchers at various institutions and companies, especially at the University of California, for the introduction of new varieties of other crops. He expected that to continue for industrial hemp, and noted that CCIA's partnerships with other AOSCA and OECD member agencies also helped to facilitate this introduction.

Valerie Mellano noted that there had been difficulty in conducting industrial hemp research at the universities, and suggested that the Board could help to clarify the situation and help pave the way for the University of California and California State University systems to move forward with research projects. Mellano noted that her student, Tony de Veyra, had applied for and received a permit from the DEA to conduct industrial hemp variety trials. Despite receiving a permit to import industrial hemp seed, they were unable to receive approval for planting either at Cal Poly Pomona or through a partnership with the University of California's Desert Research and Extension Center in Imperial County.

Tom Pires added that he experienced the same difficulties when working with the University of California's West Side Research and Extension Center.

The Board further discussed the experiences and difficulties of conducting industrial hemp research at the universities and how the Board could help to clarify any uncertainty regarding the legal status of such research by the universities.

Mkandawire noted that there had been discussion of establishing a faculty position for a hemp breeder at UC Davis, but was unsure about the status of that effort.

Fred Marshall recommended that the Board keep in consideration the vegetative propagation of industrial hemp, especially for those varieties with high levels of cannabidiol (CBD).

Goggin stated that he believed that DEA lacked sufficient jurisdiction to require and issue permits for the importation of industrial hemp seeds, and recommended that CDFA take a lead role in addressing this issue.

Tony de Veyra of Cal Poly Pomona asked why CDFA had not taken on the role of importing industrial hemp seeds, as had been done by departments of agriculture in other states. Kress responded that the law did not provide CDFA with the authority to import or distribute seeds, and clarified that CDFA did not provide this service for any other crop. Kress further clarified that the roles of the departments of agriculture varied greatly from state to state, but that CDFA could try to assist with clarifying the legal status of industrial hemp for university programs with the expertise and capacity to import and distribute seeds.

John Heaton, Program Supervisor of the CDFA Interior Pest Exclusion Program and former Seed Control Official for California, added that Oregon had also experienced a large number of fields that failed THC testing, and asked if AOSCA standards included THC testing. Mkandawire responded that AOSCA standards did not include THC testing, but that testing was performed by certification officials in Canada. Heaton also clarified that seeds certified in other states may also be sold as certified seed in California. Mkandawire added that additional tags were used in Colorado to indicate THC content in addition to the state's certification tag.

Heaton added that variability in THC content in different environments could lead to disputes between seed sellers and growers if there was not adequate variety testing in the environments that the seeds were planted.

G. V. Ayers asked if varieties certified by AOSCA or OECD would require additional testing prior to acceptance as certified by CCIA. Mkandawire confirmed that seeds certified by those organizations and member agencies would be considered as certified seeds in California.

Serbin asked at what point law enforcement was required to take action regarding a planting of industrial hemp. Robinson responded that law enforcement generally

responded when a complaint was received, and added that clear laws and regulations helped law enforcement to ensure that the laws were applied consistently.

Kress requested any motions from the Board regarding this item and subsequent discussion.

The Board further discussed the list of approved seed cultivars, the certification process and status for seed from other countries, the use of protected varieties, and providing additional guidance to the universities regarding industrial hemp research.

Valerie Mellano moved to recommend that CDFA provide information and guidance to established agricultural research institutions regarding the legal status of conducting industrial hemp research and to post this guidance on CDFA's website. Richard Soria seconded. The Board voted as follows:

Yes: Eric Carlson, Rick Gurrola, Matt McClain, Valerie Mellano, Tom Pires,
David Robinson, John Roulac, Lawrence Serbin, Richard Soria
No: None
Absent: Van Butsic, Allison Justice

Motion carried.

Schnabel asked if the Board recommended requiring use of certified seeds. Carlson responded that California growers should only use certified seed in order to protect their industry.

Pires asked on how a California farmer could obtain hemp seeds with the desired characteristics. McClain responded that California researchers needed to begin variety trials in order to obtain this information.

McClain asked if there was a difference between "certified seed" and the term "certified seed cultivar" used in the law. Kress responded that he felt that the requirement for the actual seed purchased to be certified was open for interpretation, and asked if any board members saw a need to clarify this section further.

McClain stated that FAC § 81002 was sufficiently clear that seed entering California required certification unless grown by an established agricultural research institution or seed breeder, and did not believe that the section required further clarification at this time.

Kevin Johnson stated that he planned on growing hemp using Oregon certified seeds, as it was close the region he intended to plant in, and felt that the small plantings of one tenth of an acre allowed for in the law would give growers a chance to experiment with what variety worked in their area without a large capital investment.

7. Additional Concerns for Industrial Hemp Cultivation in California

a) Import Permitting/Certification Process for Seeds (International and Interstate)

Kress noted that this issue had been discussed during earlier agenda items, but asked the Board if there were any additional comments or concerns regarding the interstate or international movement of industrial hemp.

Serbin asked to clarify whether or not CDFA was authorized to import industrial hemp seeds into the state.

Kress responded that California law did not provide authority for CDFA to act as an importer of industrial hemp seeds, and that importation of planting materials was not a service that CDFA generally provided. Kress noted that applying for import permits and providing importation services was generally provided by the universities in California.

Goggin suggested that the Board should make a recommendation for CDFA to seek legislature authority to conduct pilot programs and/or participate in the process for the importation of industrial hemp seeds in order to help solve this problem. Robinson noted that the timeframe for introducing new bills in the current legislative session had passed. Goggin stated that some action during the current legislative session was possible, but also noted that he had engaged California State Senator Scott Wilk (R-21) regarding a bill for industrial hemp for the 2018 legislative session.

McClain stated that the focus should be on assisting the universities provide this service, and recommended that CDFA help the universities find any roadblocks that are preventing them from importing seeds and beginning research. McClain also recommended that CDFA help provide clarity to those established agricultural research institutions that did not meet the definition of an institution of higher education found in federal law.

There were no motions regarding this item.

b) Registered Laboratory Testing

Kress noted that FAC § 81006 required growers to collect and submit samples for THC testing to a “laboratory registered with the federal Drug Enforcement Administration”. Kress informed the Board that laboratories could obtain DEA registration in order to accept samples for testing from other DEA permit or license holders. The registration included requirements for the handling of controlled substances, including physical security controls and recordkeeping. However, the registration was not utilized for general commercial testing.

Kress stated that he had spoken with representatives from one laboratory in California that had DEA registration and also accepted commercial cannabis samples. However, it was his understanding that this was not common practice.

Roulac stated that there were concerns with the accuracy of THC testing of food products in Canada and Europe.

Carlson stated that he did not recommend sending hemp samples to laboratories for THC testing that also test cannabis due to the potential for cross contamination and inconsistencies in calibration and cleaning procedures that could affect test results. Carlson stated that he did not believe that use of a DEA registered laboratory should be necessary, and recommended use of an ISO/IEC 17025 accredited laboratory. Carlson noted that there were five such accredited laboratories in California at the time, only one of which accepted cannabis samples.

Serbin asked about the number of DEA-registered laboratories in California that could provide this testing.

Kress responded that DEA's list of registered laboratories was not available to the public. Most DEA-registered laboratories he had learned of were public agencies or research institutions that worked with control substances. Kress noted that the intent of this registration was not for use by commercial laboratories to accept samples for growers.

Roulac asked how the Board or CDFA could amend the requirement to use a DEA registered laboratory.

Schnabel responded that CDFA would not be able to change this statutory requirement through regulation. Schnabel noted that it was not likely that CDFA would take this up as a departmental initiative, and that bills containing this type of legislative clean up were generally brought to a member of the Legislature by industry.

There were no motions or public comments regarding this item.

c) Additional State and Local Restrictions Affecting Growers

Kress asked the Board if there were any comments or concerns regarding state and local restrictions on industrial hemp.

Kress noted that this issue had been brought to CDFA's attention, and would be something that needs attention in the future.

Carlson stated that research had shown that a five-mile buffer distance was necessary between industrial hemp and marijuana plants to prevent cross contamination, and that this could be a future issue for both counties with primarily marijuana growers and counties with primarily hemp growers. However, he added that growers only growing female plants might be able to work around this issue.

Goggin stated that the Hemp Industries Association looked forward to working on any legislative changes necessary to work through the issues in the law that had been identified.

There were no motions regarding this item.

d) Recommendations for Additional Regulatory Concepts to Provide For Effective and Practical Production and Enforcement

There were no motions or public comments regarding this item. Agenda item will be discussed in the next meeting.

8. Election of Officers

Kress noted that FAC Section 81001(f) required the Board to elect a Chair annually, and other officers as it deemed necessary. Kress explained that the Chair would work directly with CDFA staff to manage meetings, set the agenda, and call for a meeting if he/she feels it is necessary. Kress asked the Board for a volunteer or nomination for Chair. Schnabel recommended appointment of a Chair and Vice Chair, and added that other officers were generally not needed since CDFA performed the duties of a Secretary.

Eric Carlson volunteered and moved to serve as Industrial Hemp Advisory Board Chair, beginning at the next meeting. Matt McClain seconded. The Board voted as follows:

Yes: Eric Carlson, Rick Gurrola, Matt McClain, Valerie Mellano, Tom Pires,
David Robinson, John Roulac, Lawrence Serbin, Richard Soria
No: None
Absent: Van Butsic, Allison Justice

Motion carried.

Kress asked if the Board would like to appoint additional officers. McClain recommended appointment of a Vice Chair. Kress asked the Board for a volunteer or nomination for Vice Chair.

Lawrence Serbin volunteered and moved to serve as Industrial Hemp Advisory Board Vice Chair, beginning at the next meeting. Tom Pires seconded. The Board voted as follows:

Yes: Eric Carlson, Rick Gurrola, Matt McClain, Valerie Mellano, Tom Pires,
David Robinson, John Roulac, Lawrence Serbin, Richard Soria
No: None
Absent: Van Butsic, Allison Justice

Motion carried.

There were no public comments regarding this item.

9. Public Comments

Matt Butterworth recommended that growers use certified seed, and suggested use of Mediterranean varieties. Butterworth asked if THC levels in industrial hemp grown for

fiber and oilseed production were nitrogen or fertilizer sensitive. Butterworth echoed the need for industrial hemp research to be performed at the universities, and recommended testing varieties using different fertilizer levels. Butterworth also echoed earlier recommendations to keep fees low.

The Board briefly discussed the information available, the need for new research and variety trials, and how to provide outreach to growers.

Johnson encouraged the Board to include the fee structure on the agenda for the next meeting so that farmers can begin planting and experimenting as soon as possible.

10. Next Meeting/Agenda Items

Carlson recommended holding the next meeting after the first week in October in order to have crop testing and harvest data from other states for the current year. A Doodle poll will be sent to board members by Cathy Vue around September 1, 2017, to determine the best date available.

The following items were discussed to be included on the agenda for the next meeting:

- Program budget and fund condition
- Fee structure
- Review samples of industrial hemp regulations from other states
- Present previously discussed guidance document for universities
- Guidance document for law enforcement on industrial hemp
- THC testing levels in plantings and in products
- Legal status of CBD, and how the removal of FAC § 81010(b) affects regulation might affect processing of CBD
- Update on any changes to the laws and regulations regarding industrial hemp

Carl Pfeiffer added that he had received approval to attend the National Industrial Hemp Regulatory Conference on July 17-12, 2017, hosted by the Kentucky Department of Agriculture. His trip had been canceled due to the addition of Kentucky to the list of states subject to AB 1887's travel prohibition by the Attorney General on June 23, 2017. Mkandawire was scheduled to attend on behalf of CCIA. CDFA had budgeted for this trip for the current fiscal year, and intended to replace with an informal meeting with a state with an established industrial hemp program where travel had not been prohibited, such as Colorado, in order to learn more about that state's program and the industrial hemp industry.

Hopper asked for clarification about the timeline for establishing regulations for a fee structure, and noting that the board was not planning to meet until October. Kress noted the requirements for the regular rulemaking process, including a minimum 45-day comment period and review by the Office of Administrative Law. Kress added that CDFA was already developing the templates and preliminary documents in order to begin the rulemaking process as quickly as possible after receiving a recommendation from the Board. Hopper again suggested putting in place a method for local governments to begin

to authorize cultivation in their jurisdiction ahead of the establishment of fees in regulation.

Ayers asked if CDFA could utilize the emergency rulemaking process if the statute were amended to provide authority for emergency regulations. Kress responded that CDFA could pursue regulations as authorized in the statute, and noted that the emergency rulemaking process included some of the same requirements as regular rulemaking but resulted in much quicker implementation.

11. Adjournment

Meeting adjourned by Joshua Kress at 1:06 PM

Respectfully submitted by:

Cathy Vue
Associate Governmental Program Analyst
CDFA Nursery, Seed and Cotton Program

CALIFORNIA INDUSTRIAL HEMP FARMING ACT

California Industrial Hemp Farming Act

Assembly Bill 566, Chapter 398, Statutes of 2013

- ❖ Established Division 24 [Sections 81000-81010] of the California Food and Agricultural Code
- ❖ Signed by the Governor on September 27, 2013
- ❖ Included a provision for the law to "not become operative unless authorized under federal law"
- ❖ The Adult Use of Marijuana Act (Proposition 64, November 2016) removed this provision from the law, and made the Division effective on January 1, 2017

California Department of Food and Agriculture

2

What is "industrial hemp"

California Health and Safety Code (HSC) Section 11018.5:

- ❖ "Industrial hemp" means a fiber or oilseed crop, or both, that is limited to types of the plant *Cannabis sativa* L. having no more than three-tenths of 1 percent tetrahydrocannabinol (THC) contained in the dried flowering tops, whether growing or not; the seeds of the plant; the resin extracted from any part of the plant; and every compound, manufacture, salt, derivative, mixture, or preparation of the plant, its seeds or resin produced therefrom.

California Department of Food and Agriculture

3

California Industrial Hemp Law

California Food and Agricultural Code (FAC) Division 24:

- ❖ Establishes an Industrial Hemp Advisory Board
- ❖ Requires registration with the CAC for commercial growers and seed breeders
- ❖ Requires use of approved cultivars for commercial cultivation
- ❖ Sets restrictions for plantings, sets testing requirements, and requires destruction of plantings that test at > 0.3% THC
- ❖ Exempts members of an "established agricultural research institution" from most requirements in the Division
- ❖ Includes some reporting requirements for the Attorney General and the Board

California Department of Food and Agriculture

4

California Industrial Hemp Law

Proposed or pending legislation:

- ❖ Trailer bill regarding cannabis, SB 94, signed by the governor on June 27, 2017. This bill removes subsection (b) from Section 81010.
- ❖ There are no other bills active in the legislature that would make any changes to FAC Division 24 at this time.

California Department of Food and Agriculture

5

California Industrial Hemp Program

- ❖ Currently managed by the CDFA Nursery, Seed, and Cotton Program
- ❖ Program general inbox: industrialhemp@cdfa.ca.gov
- ❖ See the program's home page for contact info, FAQ's, IHAB and meeting info, current laws and regulations, program updates, and to sign up for our e-mail list:
<https://www.cdfa.ca.gov/plant/industrialhemp/>

California Department of Food and Agriculture

6

1 **SEC. 7606. LEGITIMACY OF INDUSTRIAL HEMP RESEARCH.**

2 (a) IN GENERAL.—Notwithstanding the Controlled
3 Substances Act (21 U.S.C. 801 et seq.), the Safe and
4 Drug-Free Schools and Communities Act (20 U.S.C. 7101
5 et seq.), chapter 81 of title 41, United States Code, or
6 any other Federal law, an institution of higher education
7 (as defined in section 101 of the Higher Education Act
8 of 1965 (20 U.S.C. 1001)) or a State department of agri-
9 culture may grow or cultivate industrial hemp if—

10 (1) the industrial hemp is grown or cultivated
11 for purposes of research conducted under an agricul-
12 tural pilot program or other agricultural or academic
13 research; and

14 (2) the growing or cultivating of industrial
15 hemp is allowed under the laws of the State in which
16 such institution of higher education or State depart-
17 ment of agriculture is located and such research oc-
18 curs.

19 (b) DEFINITIONS.—In this section:

20 (1) AGRICULTURAL PILOT PROGRAM.—The
21 term “agricultural pilot program” means a pilot pro-
22 gram to study the growth, cultivation, or marketing
23 of industrial hemp—

24 (A) in States that permit the growth or
25 cultivation of industrial hemp under the laws of
26 the State; and

1 (B) in a manner that—

2 (i) ensures that only institutions of
3 higher education and State departments of
4 agriculture are used to grow or cultivate
5 industrial hemp;

6 (ii) requires that sites used for grow-
7 ing or cultivating industrial hemp in a
8 State be certified by, and registered with,
9 the State department of agriculture; and

10 (iii) authorizes State departments of
11 agriculture to promulgate regulations to
12 carry out the pilot program in the States
13 in accordance with the purposes of this
14 section.

15 (2) INDUSTRIAL HEMP.—The term “industrial
16 hemp” means the plant *Cannabis sativa L.* and any
17 part of such plant, whether growing or not, with a
18 delta-9 tetrahydrocannabinol concentration of not
19 more than 0.3 percent on a dry weight basis.

20 (3) STATE DEPARTMENT OF AGRICULTURE.—
21 The term “State department of agriculture” means
22 the agency, commission, or department of a State
23 government responsible for agriculture within the
24 State.

1 SEC. 763. None of the funds made available by this
2 Act or any other Act may be used—

3 (1) in contravention of section 7606 of the Ag-
4 ricultural Act of 2014 (7 U.S.C. 5940); or

5 (2) to prohibit the transportation, processing,
6 sale, or use of industrial hemp that is grown or cul-
7 tivated in accordance with subsection section 7606
8 of the Agricultural Act of 2014, within or outside
9 the State in which the industrial hemp is grown or
10 cultivated.

11 SEC. 764. For an additional amount for “Animal and
12 Plant Health Inspection Service, Salaries and Expenses”,
13 \$5,500,000, to remain available until September 30, 2017,
14 for one-time control and management and associated ac-
15 tivities directly related to the multiple-agency response to
16 citrus greening.

17 SEC. 765. Section 529(b)(5) of the Federal Food,
18 Drug, and Cosmetic Act (21 U.S.C. 360ff(b)(5)) is
19 amended by striking “the last day” and all that follows
20 through the period at the end and inserting “September
21 30, 2016.”.

22 SEC. 766. Notwithstanding any other provision of
23 law, for purposes of applying the Federal Food, Drug, and
24 Cosmetic Act (21 U.S.C. 301 et seq.)—

6/29/2017

Agenda Item No. 4

114TH CONGRESS
1ST SESSION

S. _____

To amend the Controlled Substances Act to exclude industrial hemp from the definition of marihuana, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Mr. WYDEN (for himself, Mr. MERKLEY, Mr. McCONNELL, and Mr. PAUL) introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To amend the Controlled Substances Act to exclude industrial hemp from the definition of marihuana, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Industrial Hemp
5 Farming Act of 2015”.

6 **SEC. 2. EXCLUSION OF INDUSTRIAL HEMP FROM DEFINI-**
7 **TION OF MARIHUANA.**

8 Section 102 of the Controlled Substances Act (21
9 U.S.C. 802) is amended—

1 (1) in paragraph (16)—

2 (A) by striking “(16) The” and inserting

3 “(16)(A) The”; and

4 (B) by adding at the end the following:

5 “(B) The term ‘marihuana’ does not include in-
6 dustrial hemp.”; and

7 (2) by adding at the end the following:

8 “(57) The term ‘industrial hemp’ means the
9 plant *Cannabis sativa* L. and any part of such plant,
10 whether growing or not, with a delta-9
11 tetrahydrocannabinol concentration of not more than
12 0.3 percent on a dry weight basis.”.

13 **SEC. 3. INDUSTRIAL HEMP DETERMINATION BY STATES.**

14 Section 201 of the Controlled Substances Act (21
15 U.S.C. 811) is amended by adding at the end the fol-
16 lowing:

17 “(i) INDUSTRIAL HEMP DETERMINATION.—If a per-
18 son grows or processes *Cannabis sativa* L. for purposes
19 of making industrial hemp in accordance with State law,
20 the *Cannabis sativa* L. shall be deemed to meet the con-
21 centration limitation under section 102(57), unless the At-
22 torney General determines that the State law is not rea-
23 sonably calculated to comply with section 102(57).”.

**California Department of Food and Agriculture
Industrial Hemp Registration Fee Analysis**

I. Background

California’s industrial hemp law, Division 24 of the California Food and Agricultural Code (FAC), took effect on January 1, 2017. The law requires registration with the county agricultural commissioner for a person to grow industrial hemp, unless exempt as an established agricultural research institution.

FAC Section 81005 requires the California Department of Food and Agriculture (CDFA) to establish a registration fee and appropriate renewal fee to be paid by growers of industrial hemp for commercial purposes and seed breeders, not including an established agricultural research institution, to cover the actual costs of implementing, administering, and enforcing the provisions of the Division 24.

Per FAC sections 81003 and 81004, registration shall be valid for two years, after which registrant shall renew registration and pay a renewal fee.

II. Fee Comparisons

CDFA – CalCannabis:

CDFA’s CalCannabis Cultivation Licensing program has proposed application fees of \$60 - \$4,260, plus corresponding annual licensing fees of \$560 - \$21,915. These fees do not include fees for local licenses (county/city) required by state and local law, as well as any local taxes.

The closest comparison to industrial hemp plantings would likely be the proposed medium outdoor cannabis cultivation, which is proposed to have a \$765 initial application fee plus an annual licensing fee of \$6,890. Again, this does not include additional required local fees or taxes.

Other States:

A number of states have established programs that provide for the registration of industrial hemp growers, including: Colorado, Kentucky, Nevada, Oregon, and Washington. These states’ fee structures are as follows:

State	Required for...	Grower Registration Fee Structure
Colorado	Growers	Annual Application: \$500 Plus: \$5 per acre (outdoor – round up to nearest acre) and/or \$0.33 per 1,000 square feet (indoor – round up to nearest 1,000 sq. ft.) Inspection and Sampling Fees: \$35 per hour per inspector for actual drive time, mileage, inspection, and sampling time (plus testing costs?)
Kentucky	Growers Processors/ Handlers	Annual Application Fee: \$50 (plus cost of criminal background check to State Police) Participation Fee: \$350 per address Post-Harvest Retest or Pesticide Residue Quantification Test Fees: \$150 per instance Site Modification Surcharge: \$500 per change or added growing site

Nevada	Growers	Annual Application: \$500 Plus: \$5 per acre or portion thereof (outdoor) and/or \$0.33 per 1,000 square feet or portion thereof (indoor) Inspection costs: \$50 per hour per inspector for drive time, inspections, and sampling, plus mileage Additional testing fees may apply Amendment Fee: \$500 for alterations of any kind to the application details
Oregon	Growers Seed Producers Handlers	Annual Grower Registration Fee: \$1,300 Annual Seed Registration Fee: \$120 Additional testing fees may apply
Washington	Growers Processors/ Marketers Distributors Specialty Growers	Annual Application Fee: \$450 Annual License Fee: \$300 for one field, plus \$200 for each additional field THC Testing: \$2,000 per batch of up to 10 samples Pesticide Testing Fee: \$400, if growing for human consumption Inspection Fee: \$200, plus cost of travel time and mileage (at least two inspections per field per year) Site Modification Surcharge: \$200 per change or added growing site

(Information above from publicly available forms and documents, and is pending confirmation from these states' regulatory officials.)

III. Estimated Registration Scope

The following participation numbers were reported from the Colorado and Kentucky departments of agriculture for their respective industrial hemp cultivation programs:

State	Year	Registrants	Total Acres	Total Sq. Ft.
Colorado	2014	131	1,811	253,000
	2015	166	3,657	570,980
	2016	312	8,988	1,360,000
Kentucky	2017	249	Unknown	Unknown

Considering the large number of existing cannabis growers already in California, CDFA believes that 150-200 applicants for the first year of registration is a reasonable (or possibly low) estimate.

IV. Estimated Program Costs

CDFA Costs:

The Program has estimated state costs for Fiscal Year 2017/18 for the following activities:

- Meetings and management of the Industrial Hemp Advisory Board
- Posting/maintaining the list of approved cultivars
- Minor rulemaking for the fee schedule
- Posting/maintaining laws and regulations
- Processing and maintaining a database of registration information from the county agricultural commissioners
- Processing registration fee payments
- Outreach and education for county agricultural commissioners and their staffs

Budget Item	Estimated Program Cost for FY 17/18
Total Personal Services	\$25,206
Operating Expenses & Equipment	\$11,450
TOTAL BUDGET	\$36,656

Estimated state expenses for Fiscal Year 2017/18 include 10% time for one Senior Environmental Scientist and 15% time for one Associate Governmental Program Analyst, board member and staff travel costs, and some other associated general expenses and overhead. If the scope of CDFA's responsibilities is expanded, or if the scope of registrants is higher than projected, then these estimated costs will increase accordingly.

County Agricultural Commissioner Costs:

Estimated costs for the county agricultural commissioners for the following activities:

- Processing applications, fee payments, modification requests
- Approval and registration of growers and growing locations
- Inspections of growing sites and records (with or without security detail)
- Outreach and education for growers and the public

Such costs vary widely from county to county, and would need to be determined for each county individually.

For some programs requiring registration or certification by the county, such as plant phytosanitary certification and commodity inspection programs, the county boards of supervisors sets an appropriate fee structures for the recovery of costs by the commissioner.

Other Activities:

In addition to the activities listed above, the following are not provided for under Division 24 to be performed by county and state agricultural staff, but may be determined necessary for effective enforcement of the law:

- Field inspections
- Training of growers or inspectors
- Sampling and testing of crops for THC
- Enforcement for non-compliance of registered plantings
- Enforcement for non-registered plantings
- Any activities related to established agricultural research institutions

Other Direct Costs for Growers:

Additional costs to registrants for cultivation and meeting statutory requirements may include:

- Land, seeds, cultivation practices, and any other goods and/or services necessary to grow, harvest, and sell industrial hemp
- Testing services, required in FAC § 81006 (f)
- Adequate signage, required in FAC § 81006 (b)
- Procurement of seeds or other propagative materials
- Destruction of non-compliant crops, per FAC § 81006 (f)

V. Total Cost Analysis

As noted above, and using a conservative estimate for program participation, CDFA’s costs per participant are estimated as follows:

Estimated Annual Program Costs	\$36,656
Estimated Number of Applicants	150
Estimated Annual Cost per Applicant	\$244.37
Estimated 2-year cost per Registration	\$488.74

The above cost estimates do not include repayment of expenditures made prior to collection of fees (at minimum, those incurred during Fiscal Year 2016/17) or the building of a sufficient reserve fund (required to be maintained at approximately one-third to one-half of the program’s annual budget).

As noted above, estimated costs by the county agricultural commissioner for providing registration will vary widely, and would need to be determined for each county individually.

VI. Source Materials

Fees and program participation figures used in this analysis were collected from the following sources:

California Department of Food and Agriculture, CalCannabis Cultivation Licensing Program. Proposed Regulations for Medical Cannabis Cultivation Program. California Code of Regulations, Title 3, Proposed Sections 8100 and 8200. Released April 28, 2017.

Colorado Department of Agriculture, Plant Industry Division. Rules Pertaining to the Administration and Enforcement of the Industrial Hemp Regulatory Program Act. Code of Colorado Regulations, 8 CCR 1203-23. Updated effective March 30, 2017.

Colorado Department of Agriculture, Plant Industry Division. Commercial Industrial Hemp Registration Application. Revised February 2017.

Colorado Department of Agriculture, Plant Industry Division. Industrial Hemp End of Year Review. Dated December 7, 2016.

Kentucky Department of Agriculture, Industrial Hemp Research Pilot Program. 2017 Policy Guide. Updated October 11, 2016.

Kentucky Department of Agriculture. 2017 Kentucky Industrial Hemp Research Pilot Program Participants. Updated April 14, 2017.

Nevada Department of Agriculture. Production of Industrial Hemp: Research and Development Program Registration Application. Date unknown. Downloaded on May 12, 2017.

Oregon Department of Agriculture. Industrial Hemp Rules. Oregon Administrative Rules, Chapter 603, Division 48. Updated effective October 28, 2016.

Oregon Department of Agriculture. Calendar Year 2017 Industrial Hemp Registration Application, Grower and/or Agricultural Hemp Seed Permit. Revised January 19, 2017.

Oregon Department of Agriculture. Calendar Year 2017 Registration Application For Handling Industrial Hemp. Revised January 19, 2017.


Washington State Department of Agriculture. Industrial Hemp Research Program Rules. Washington Administrative Code, Chapter 16-305. Effective May 14, 2017.

Washington State Department of Agriculture. Industrial Hemp Research Pilot, Grower Application. AGR FORM 517-4729. Dated April 2017.



California Industrial Hemp Seed Certification

Alex Mkandawire





CCIA

California Crop Improvement Association (CCIA) is recognized by the California Seed Law as the official seed certifying agency for agronomic and vegetable seed in the state.

The CCIA's objective is to ensure that California certified seed is of high quality. Quality characteristics of seed that are required for customer satisfaction include varietal purity, freedom from noxious and problematic weeds, low tolerance for common weeds, low inert matter, high germination and low/zero tolerance for problematic seed-borne diseases.

CCIA Elected Board of Directors

District I	Bill Suits
District II	Mary Wadsworth
District III	Frank Saviez
District IV	Tom Hearne
District V	Bob Baglietto
District VI	Jack De Wit
District VII	Charles Schonauer
District VIII	Glenn Hawes

Board approves Varieties and Standards

Variety Recommendation for Certification

1. Certification Technical Committee (CTC)



Application for Certification



AOSCA Member Agencies




- United States (44 individual state agencies)
- Australia (AssureQuality)
- Australia (Seed Services Australia)
- Argentina
- Brazil Ministry of Agriculture, Livestock, & Food Supply
- Canadian Food Inspection Agency
- Canadian Seed Growers Association
- Chile Seed Division
- New Zealand Seed Quality Management Authority
- South African National Seed Organization (SANSOR)



Canada

Variety	Variety	Variety	Variety
Alyssa	C S	Fibrimon 24	Silesia
Anka	Delores	Fibrimon 56	UC-RGM
Canda	Deni	Finola	Uniko B
CanMa	ESTA-1	Joey	USO 14
Carmagnola	Fasamo	Jutta	USO 31
Carmen	Fendrina 74	Kompolti	X59 (Hemp Nut)
CFX-1	Felina 34	Kompolti Hibrid TC	Yvonne
CFX-2	Ferimon	Kompolti Sargaszaru	Zolotonosha 11
Crag	Fibranova	Lovrin 110	
CRS-1	Fibriko	Petera	




Albania	Croatia	Hungary	Latvia	Portugal	Tunisia
Argentina	Cyprus	Iceland	Lithuania	Romania	Turkey
Australia	Czech Republic	India	Luxembourg	Russian Federation	Uganda
Austria	Denmark	Iran	Mexico	Serbia	Ukraine
Belgium	Egypt	Ireland	Moldova	Slovak Republic	United Kingdom
Bolivia	Estonia	Israel	Morocco	Slovenia	United States
Brazil	Finland	Italy	Netherlands	South Africa	Uruguay
Bulgaria	France	Japan	New Zealand	Spain	Zimbabwe
Canada	Germany	Kenya	Norway	Sweden	
Chile	Greece	Kyrgyzstan	Poland	Switzerland	

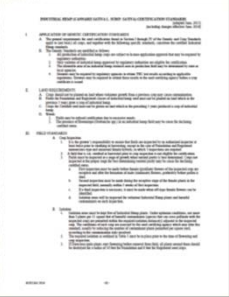



OECD Registrations after 2013

Variety name
Hiration
Laura Secord
Martha
Angie
Quida
Ivory
Marcello
Markant
KC Bonusz
Ratza
Carmaleonte
Eletta Campana
Marina
Judy
Georgina
Victoria
KC Zuzana
KC Virtus



Field and Seed Standards

Field Standards

LAND REQUIREMENTS


A. Crops should not be planted on land where volunteer growth from a previous crop may cause contamination.

B. Fields for Foundation and Registered classes of industrial hemp seed must not be planted on land which in the previous 5 years grew a crop of industrial hemp.

C. Crops for Certified seed must not be grown on land which in the preceding 3 years produced a crop of industrial hemp.

D. Weeds

1. Fields may be refused certification due to excessive weeds.
2. The presence of Broomrape (*Orobanchae* spp.) in an industrial hemp field may be cause for declining certified status.




Field Standards

FIELD STANDARDS

A. Crop Inspection

1. It is the grower's responsibility to ensure that fields are inspected by an authorized inspector at least twice prior to swathing or harvesting, except in the case of Foundation and Registered monoecious type and unisexual female hybrids, in which 3 inspections are required.
2. A field that is cut, swathed or harvested prior to crop inspection is not eligible for certification.
3. Fields must be inspected at a stage of growth when varietal purity is best determined. Crops not inspected at the proper stage for best determining varietal purity may be cause for declining certified status.



FIELD STANDARDS


B. Isolation

1. Isolation areas must be kept free of Industrial Hemp plants. Under optimum conditions, not more than 3 plants per 11 square feet of harmful contaminants (species that can cross pollinate with the inspected crop) are permitted within the required isolation distance(s) adjacent to the inspected crop. The conditions of each crop are assessed by the seed certifying agency which may alter this standard, usually by reducing the number of contaminant plants permitted per square yard, according to the contamination risks involved.

2. The required isolation as outlined in Table 1 must be in place prior to the time of flowering and crop inspection.

3. If Dioecious male plants start flowering before removal from field, all plants around them should be destroyed for a radius of 10 feet for Foundation and 6 feet for Registered seed crops.


Field Standards



Field Standards


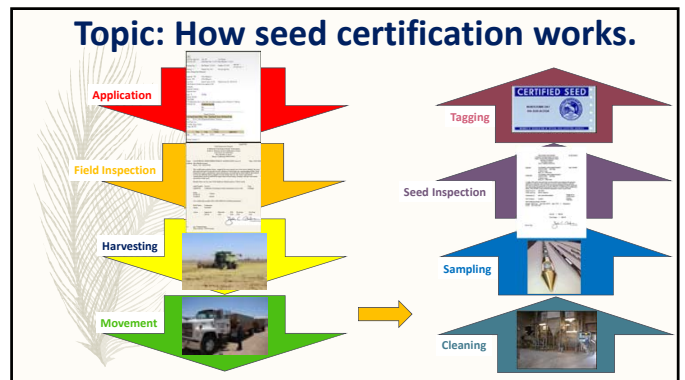
Table 1. Isolation Distances

Inspected Crop	Other Crops	Isolation Distance
Dioecious type: Foundation and Registered	Other variety & Non cert	16150' (3 mile)
	Lower Class crop	6460' (1.2 mile)
Certified	Other variety & Non cert	3230' (0.6 mile)
Monoecious and Hybrid type: Foundation and Registered	Dioecious & Non cert	16150' (3 mile)
	Other Monoecious	6460' (1.2 mile)
	Lower Class crop	3230' (0.6 mile)
Certified	Other variety & Non cert	3230' (0.6 mile)




Seed Standards

Factor	Foundation	Registered	Certified
Pure seed (min)	98.00%	98.00%	98.00%
Inert matter (max)	2.00%	2.00%	2.00%
Weed seeds (max)	0.10%	0.10%	0.10%
Total other crop seeds (max)	0.01%	0.03%	0.08%
Other varieties (max)	0.005%	0.01%	0.05%
Other kinds (max)	0.01%	0.03%	0.07%
Germination (min)	80.00%	80.00%	80.00%


Application Submission and Review



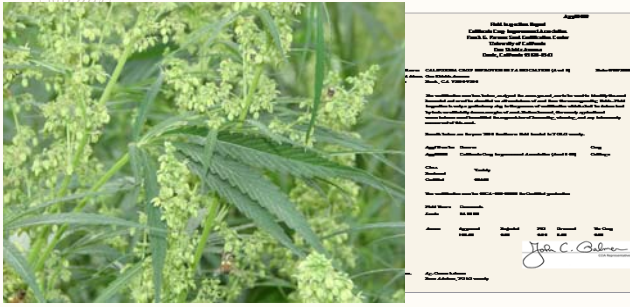
- Date Planted/Submitted
- Variety
- Class Produced
- Acres Applied
- Map
- Planting Stock Tag/Breeder Letter
- Planting Stock Information
- Field Name
- County
- Field History

Field Inspection

CCIA Standards meet or exceed standards of:
• Association of Official Seed Certifying Agencies (AOSCA)

Field Inspection Report



Field Harvesting



- A field harvested prior to field inspection cannot be certified under any circumstances.
- Permission to harvest the field should be sought and is only granted by the county Agricultural Commissioner and harvesting should be done by approved harvesters.
- The field should only be harvested after the Agricultural Commissioner verifies that all equipment, combines, trucks, wagons, and bins are clean to ensure varietal purity.

Seed Movement



- It is the joint responsibility of the applicant and grower to maintain the identity and genetic purity of the crop intended for certification throughout harvest and during delivery to a conditioning facility approved by the CCIA.
- Seed movement within California shall be accompanied by an 'Inter-county Permit' and that destined for another state or an AOSCA country by an 'Inter-State Transfer of Seed Certificate' issued through the authority of the local Agricultural Commissioner.

Seed Cleaning



- Only CCIA approved and accredited conditioners with proper equipment can condition certified seed in California.
- Conditioning of seed intended for certification is subject to supervision by the county Agricultural Commissioner.
- The conditioner will clearly mark bins and containers, accept delivery of seed from the harvester, and condition the seed using appropriate and acceptable processes, and keep all documentation for verification.

Seed Sampling



- Seed sampling is supervised by the county Agricultural Commissioner. The conditioner will submit a seed sample to a Seed Laboratory of choice and will keep a duplicate sample for 3 years as per Federal Seed Act requirements.
- The CCIA executes a Certified Seed Sampler Program with AASCO oversight. The objective is to attain uniformity in seed sampling in California and to obtain accurate seed test results.

Certified Seed Sampler Program



Methods and Equipment



Content Examination

