

2017 Industrial Hemp Research Pilot Program Parameters

The Pennsylvania Department of Agriculture (PDA) is conducting an Industrial Hemp Research Pilot Program as authorized by section 7606 of the Agricultural Act of 2014 (Farm Bill) and Pennsylvania's Industrial Hemp Research Act (3 Pa.C.S.A. 701-710) (Act 92), signed by Governor Wolf on July 20, 2016. This program allows researchers from institutions of higher education and growers contracting with PDA to apply and be approved for a research permit from PDA.

This document outlines program parameters for 2017. PDA may revise program parameters in upcoming years to reflect regulatory and statutory changes or scientific advances.

The following information is a guide for researchers when planning industrial hemp pilot projects for submission to PDA for approval as required by Act 92.

1) Research Scope:

a. Who may apply to conduct a Pilot Research Project:

- i. An institution of higher education, as defined by the Farm Bill and Act 92, may submit an Industrial Hemp Research application to PDA. Once approved, an institution of higher education holding an industrial hemp research permit issued by PDA may contract with a person* to grow or cultivate industrial hemp under its approved hemp research project. The contract between the institution of higher education and the person must incorporate the provisions of the permit issued by PDA and will require review and approval by PDA.
- ii. A person* desiring to conduct an industrial hemp research project independent of an institution of higher education may submit an Industrial Hemp Research application directly to PDA. If the project is approved, the person shall enter into a contract with PDA and be issued an industrial hemp research project permit. The person permitted may contract with others to grow or cultivate industrial hemp under its approved hemp research project. The contract must incorporate the provisions of the permit issued by PDA and will require review and approval by PDA.
- iii. Persons applying for and/or involved with the research and growing of the industrial hemp crop, not directly employed by PDA, must submit results

** Person — A natural person, corporation, foundation, organization, business trust, estate, limited liability company, licensed corporation, trust, partnership, limited liability partnership, association, or other form of legal business entity, as well as a state or local government entity.*

of Pennsylvania State Police (PSP) and/or FBI criminal history record checks to PDA for the purpose of verifying any criminal arrests and convictions.

iv. More specifically:

At the time of the application, the applicant must submit a PSP response to criminal record check obtained from the e-PATCH system (<https://epatch.state.pa.us/Home.jsp>) for each person named in the application. (Proof of submission of the request would also be acceptable if the response is not received by the application deadline.)

When the application is approved, and before a permit will be issued, PDA must have received and approved:

- a. A PSP response to criminal record check for each project participant.
 - b. A PSP response to criminal record check and an FBI criminal history background check for the applicant. Information about the process for FBI fingerprinting-based background checks will be provided upon approval of the application.
- v. Persons shall submit the criminal history background check to PDA to be eligible to be involved in the pilot project. Any person with a felony drug conviction within the past 10 years may not contract to grow or cultivate industrial hemp under the PA Industrial Hemp Research Pilot Program. PDA's final approval of the application and issuance of a permit is contingent upon a successful background check.
- vi. After approval of an industrial hemp research project, if any person involved in the approved project is charged and convicted of a felony, including a felony drug conviction, the holder of the contract and permit must immediately file a report with PDA. PDA will make a determination of any action related to the approved industrial hemp project. Failure to report will result in revocation of research permits and contracts, and may result in issuance of control orders and application of criminal and/or civil penalties in accordance with Act 92.
- b. Application Content: An **application** for participation in the 2017 PDA Industrial Hemp Research Pilot Program is available and must be completed in full. Major sections of the application include:
- i. The names and addresses of the applicant and of all participants in the research project.
 - ii. A detailed description of the research project, including objectives, work plan, and anticipated timeline.
 - iii. The size and legal description of each location, plot, and site to be utilized to grow or cultivate industrial hemp. (PDA inspectors will collect GPS coordinates during site visits.)

- iv. A description of resources available to implement the project, including experience of participants, personnel, and equipment.
 - v. For those applications proposing the sale or distribution of an industrial hemp product, the application must include documentation that the product complies with all federal and state laws and regulations that govern the sale, production, labeling, marketing and distribution of such products.
- c. Contracts and Permits: Upon approval of an industrial hemp research project and prior to implementation of any part of that approved project, the institution of higher education or person approved must enter into a contract with PDA and individual permits must be issued by PDA. Individual permits will establish specific parameters and requirements to be followed.
- d. Research Scale: A single application should describe a single research project to be conducted using a maximum research plot of five acres in size, or smaller plots, which when combined, will not exceed a size of five acres. If projects receive approval, PDA will collect GPS coordinates of each site where industrial hemp will be grown, and these coordinates will be shared with state and local law enforcement.
- e. Research Duration: Research projects may be for the duration of one to three years.
- f. Limited Research Project Approvals: For the first year of the pilot program, PDA will approve a maximum of 30 applications. PDA retains the right to define what constitutes a single research project, suitable for approval as a single application and issuance of a single permit.
- g. Government grant opportunities: In the event a pilot project sponsor is awarded a grant by USDA or other government agency, PDA will expedite the project review/approval process to enable the grant funded project to proceed in a timely manner.
- h. Research Focus: PDA accepts the focus provided by the USDA/DEA/FDA “Statement of Principles on Industrial Hemp” published August 12, 2016. In this statement, federal agencies define industrial hemp as “used exclusively for industrial purposes (fiber and seed).” It further states that, while sales of hemp products may be part of marketing research, products in a research pilot program should not be produced “for the purpose of general commercial activity.”

The PDA Industrial Hemp Research Pilot Program will permit projects on topics concerning the growth, cultivation or marketing of hemp exclusively for industrial purposes (fiber and seed) and not for the purposes of general commercial activity.

Appropriate research topics include, but are not limited to:

- Planting methods
- Seed variety trials
- DNA sequencing/genetics
- Optimum fertility levels

- Best management practices in crop production
 - Pest management strategies
 - Development of harvesting methods/equipment uses
 - Development of hemp seed products, including oil derived from seed.
 - Biomass, seed and fiber yield trials
 - Conservation/riparian buffers
 - Phytoremediation
 - Biofuel
- i. Research Description: Research projects submitted must describe and follow a detailed scientific method. Using the research focuses listed above as a guide, applicants must establish a question and a hypothesis about growth, processing or marketing of industrial hemp, which will provide PDA, institutions of higher education and industrial hemp commodity groups with new, regionally appropriate and useful crop knowledge, better understanding of in-state market potential and/or improvement of established processing methods for industrial hemp. The purpose of this research is to allow for the future structuring of an industrial hemp industry for the Commonwealth. It is recommended that those interested in supporting pilot projects work with institutions of higher education and publish the results of their project in agricultural or scientific publications to provide documented data and information to expand and validate the findings of the project.

- i. Following is an example of an appropriate research project:

Comparing the Durability, Cleanliness and Affordability of Multiple Varieties of Hemp Fiber Bedding to Straw Bedding from Traditional Cereal Crop in Porcine Facilities.

An inventory of input costs will be recorded and evaluated for a variety of hemp seed plantings and for a control planting of traditional cereal crop. Costs of processing bedding products from the hemp crop and traditional cereal crop will be recorded and evaluated. The resulting bedding products will be used as the bedding materials for identical test groups of pigs. Tests and observations for characteristics such as moisture retention, mold growth, particle degradation, compaction, etc. will be recorded and evaluated for each hemp variety source and comparison results will be shared. Based on the data resulting from these observations, a conclusion and recommendation for or against varieties of industrial hemp will be made.

- ii. The approved researchers shall make quarterly update reports on the progress of all research and adhere to all recordkeeping, sampling and testing requirements as established by PDA in the contract and individual permits issued. Failure to meet these requirements will result in removal from the program and affect eligibility for future project approval. Control orders for the destruction of the crop may be issued as allowed under Act

92 and for violations of the terms of the contract or permits issued. A control order will be issued where the contract and permit are revoked.

iii. For purposes of marketing research, but not for the purpose of general commercial activity, industrial hemp products may be sold, if sales are not prohibited under other federal or state laws. The USDA/DEA/FDA “Statement of Principles on Industrial Hemp” (published 8/12/2016) proclaimed the federal law does not “alter the approval process for new drug applications” nor does it “alter the requirements of the Controlled Substances Act (CSA) that apply to the manufacture, distribution and dispensing of drug products containing controlled substances” nor the requirement for “those conducting research with such drug products.”

- j. Seed acquisition: PDA will acquire a registration from the U.S. Drug Enforcement Agency (DEA) as an importer of Schedule 1 drugs for non-institution of higher education pilot projects. PDA will then be able to apply for permits to import seed (controlled substances for domestic and scientific purposes) from international sources. No industrial hemp seed may, or will, be acquired from other states until a regulatory framework for such acquisition has been established through the DEA. As part of the pilot program application, applicants will be asked to supply their preferred sources of seed and the variety of seed. The approved researcher will be required to pay for seed, import, and transportation charges. PDA will be the recipient of the seeds for applicants chosen to participate in the pilot program not sponsored by an institution of higher education and the seed will remain in the custody of PDA until planting.
- i. Pilot project participants are responsible for making all arrangements for acquisition of the industrial hemp seeds for planting, including but not limited to identifying the source, making payment, arranging transportation, completing required forms for importation and movement of the seed needed by PDA to submit to the appropriate agencies.
 - ii. All seed purchased under PDA’s DEA registration must be delivered to PDA.
 - iii. PDA will accept deliveries of the seed on behalf of program participants and deliver the seed to the test plot at planting during normal business hours. All unused seed will be collected by PDA.
 - iv. No seed produced by pilot projects may be saved or used for future planting unless: 1) the original seed source holding rights to the seed provides written approval and documentation of their authority to grant that permission; and 2) written approval is received from PDA.
 - v. PDA will act as the acquisition agent only and is not responsible or liable for the condition, warranty, guarantee, company delivery delays, and viability of the seed or tetrahydrocannabinol (THC) level of plants grown from the seed. The program participant takes full responsibility for any and all costs associated with the seeds and plants grown from them including crop destruction if THC levels exceed the 0.3% permitted level.

- k. Product Restrictions: All Cannabis plant material or products produced from them must contain total THC levels of less than 0.3%. If THC levels are found to be greater than 0.30%, the material shall not move off site and products cannot enter market. If THC is between 0.3% and 1.0%, confirmational testing or alternative destruction methods may be authorized, at PDA's discretion. For any planting with THC levels over 1.0%, PDA will issue an order for the registrant to immediately destroy the plants and law enforcement will be notified and has the authority to pursue prosecution under any applicable laws.
 - i. The project plan must include detailed statements describing the management of the plants and all plant parts at the end of the growth period. Researchers that plan to conduct or offer any part of the plant for processing following the growing trials must include a detailed description of the processes that will be used and measures taken with respect to the management, security and sterilization of any seed produced.
 - ii. If the research project methods involve processing of the hemp plant and the processing facilities are located away from where the hemp plants are registered to be grown, then a transportation plan must be submitted before a permit will be issued. Only a driver who has gone through required background checks may transport the hemp and the hemp must be transported in a truck or van with an enclosed, interior, locked compartment. Individuals involved in the processing must also have the required clearances.
 - iii. Institutions of higher education, growers and processors of finished products will be held responsible to meet all laws, regulations, and requirements of all authorities that regulate any products produced, marketed, labeled, distributed and/or sold as part of the permitted industrial hemp research project. This may include, but may not be limited to, the DEA, the U.S. Food and Drug Administration, U.S. Department of Agriculture, U.S. Internal Revenue Service, PA Department of Agriculture Bureau of Food Safety and Laboratory Services, PA Department of Health, and any other governmental authority.
 - iv. The name, symbols, and logos of the Commonwealth of Pennsylvania or any of its agencies, including the PA Department of Agriculture, may not in any way be used in the labeling, promotion or marketing of any hemp products associated with the PDA Industrial Hemp Research Pilot Program without written permission from PDA.
- 2) Application Process: An **application** for participation in the 2017 PDA Industrial Hemp Research Pilot Program is available with a deadline for submission to PDA of 4:00 PM on January 6, 2017. Application submission will be possible via email, FAX, hand delivery, U.S. Postal Service, overnight courier service or express mail. Applications must be complete and accurate, submitted on the official application, and accompanied by a check or money order for the application fee payable to the Commonwealth of PA in the amount of \$250.00. Incomplete applications may be discarded. These applications will be the sole source of information under consideration for potential participation.

PDA will evaluate each application and select projects for approval based on the legitimacy of the research and the applicant's ability to complete the proposed project.

- a. Notification of tentative approval of projects will occur from Jan. 31 – Feb. 17, 2017. Upon tentative approval of a project, a process will begin that will include development of a contract between the applicant and PDA, a site visit, and issuance of an individual permit for each approved research project.
 - b. Before issuing a permit, PDA will collect \$3,000 per research project, to cover PDA costs for administration and project review.
- 3) Inspection, Sampling, Testing and Record Keeping: During the course of a research project, participants will be subject to farm/establishment inspections to verify compliance with all requirements of the contract and individual permit issued. Inspection may include sampling by PDA inspectors for the purpose of hemp seed germination and quality testing, and for determination of plant THC levels.
- a. PDA inspectors must be granted unrestricted access during normal business hours to all growing locations and adjacent areas, storage, processing and all other grounds, structures, and facilities involved in the approved pilot program project.
 - b. Inspection visits may be made with little or no notice during regular business hours. Project leaders or their representatives will be notified and requested to be present to accompany the PDA inspector and allow access to any part of the field or establishment.
 - c. Sampling of plants or plant parts for THC testing will be done by PDA inspectors utilizing a statistical method developed to provide an accurate representation of the test plot. If requested, the inspector will provide a duplicate sample to the project leader. PDA sampling will target female flowers near the time of harvest, as that sample is most likely to have the highest levels of THC.
 - d. Individual samples will be collected for each variety and/or lot of seed planted. Larger plots may require more than one sample to be accurate.
 - e. Unless prohibited by the nature of the pilot project, PDA strongly recommends that larger plots be planted with access spaces (walkways) through the planting to allow access for sample collection.
 - f. Records of all information detailing the pilot project including but not limited to inputs, climatic events, and pesticide applications will be required as part of the final project report.
 - g. Detailed records documenting any movement of seed, plants or plant parts are also required to be submitted at the conclusion of the project.
 - h. More specific recordkeeping requirements will be set forth in the individual permit issued for each approved pilot research project.
- 4) Termination/ Decommissioning of Project Responsibilities: All industrial hemp plants must be destroyed at the conclusion of the project, and PDA will continue to monitor the site for three years to insure there is no regrowth or sprouting. PDA must be given access to the site during normal business hours to conduct follow-up inspections during this time

to verify there is no regrowth at the location. Any industrial hemp plants found must be destroyed.

- 5) Pilot Program Costs: There are no financial awards associated with the Industrial Hemp Research Pilot Program. All costs incurred with the research must be paid by the participating institution of higher education or individual applicants. PDA will charge one administrative fee of \$3,000 per research project, due before a permit will be issued. PDA will also invoice the project for costs associated with inspection and testing.

The following is a list of anticipated costs associated with a research project, all of which would be the responsibility of the person conducting the research:

- a. Application Fee: \$250.00 – non-refundable, payable to PDA at time of application submission
- b. Cost of PSP criminal record checks for all research participants, plus cost of FBI background check for applicant
- c. PDA Administrative Fee: \$3,000 – must be paid before a permit will be issued
- d. Hemp Seed purchase, importation charges, acquisition and transportation to PDA (direct billed to researcher)
- e. All costs associated with the research itself
- f. PDA Service Fees:
 - i. PDA staff time for following types of activities will be assessed at \$100/hour including travel time:
 - Initial site approval visit (to each growing site)
 - Delivery of seed to project for planting
 - Growing Site inspection - sampling
 - Growing Site inspection - decommissioning (minimum of three inspection visits)
 - Site inspection (processing sites) - initial site approval visit
 - ii. Hemp Seed Testing
 - Germination: \$15.00
 - Purity: \$17.00
 - Combined: \$32.00
 - iii. Plant Material Testing for THC levels (official sample): \$200.00/sample