

EXHIBIT E

ARIZONA DEPARTMENT OF AGRICULTURE INDUSTRIAL HEMP PROGRAM

PERFORMANCE-BASED SAMPLING PROTOCOL ADDENDUM

The Arizona Department of Agriculture's ("Department") Hemp Sampling Protocol (SP 19-01) adopts USDA performance sampling approach where the method of sampling ensures a confidence level of 95 percent that no more than one percent of the plants in each lot would exceed the acceptable hemp THC level, and ensures that a representative sample is collected that represents a homogeneous composition of the lot. The performance-based sampling methods in this protocol meet the following criteria as described in 7 CFR §990.3 (a)(2)(iii)(A) and (B). These are:

- A. The alternative sampling methods described in this protocol are included as an addendum to the State's Hemp Plan (Exhibit A) and will be reviewed and approved by USDA prior to implementation.
- B. The alternative methods will ensure, at a confidence level of 95 percent, that the cannabis plants produced under the guidelines of an alternative method will not test above the acceptable hemp THC level. The alternative methods in this protocol include the following:
 1. **Production for Industrial Hemp Research.** A research institution or producer who is approved for a hemp research fee exemption, where the hemp crops produced will not enter the stream of commerce pursuant to A.A.C. R3-4-1004, and has signed a hemp research licensing agreement that includes the provisions and expectations of the producer that has been approved for a hemp research fee exemption pursuant to A.A.C. R3-4-1003;
 2. **Production of Hemp Microgreens or Production of Hemp Greens.** A producer who grows immature plants including microgreens and greens, who will not have flowering plants, and where the Hemp Sampling Protocol (SP 19-01) would not be applicable (A.A.C. R3-4-1008(C)); and
 3. **Hemp Transplant and Mother Plant Production.** A licensed hemp nursery producer who grows immature plants for transplanting purposes pursuant to R3-4-1006(D), who will not have mature flowering plants, or grows hemp mother plants to produce hemp cloning material, and where the Hemp Sampling Protocol (SP 19-01) would not be applicable (A.A.C. R3-4-1008(C)).

Performance-based sampling does not prevent the state from conducting random records inspections or sampling and testing of any hemp crops from licensed producers of the hemp program pursuant to A.A.C. R3-4-1011. The Department reserves the right to conduct a records inspection, sample, and test any hemp lot at any time to ensure compliance with the acceptable hemp THC level. Based on testing data for a period of two years, the Department will reassess all performance based sampling.

Performance based sampling will include different sampling frequencies and requirements for the following categories of hemp producers:

A. Production for Industrial Hemp Research

1. Eligibility for an alternative sampling method for research purposes. A hemp producer or research institution must have completed the requirements under A.A.C. R3-4-1004, provide the information required in A.A.C. R3-4-1003 [7 CFR 990.3(a)(1)], and sign a licensing agreement (A.A.C. R3-4-1003(E)) that includes the acknowledgment that a hemp producer or research institution will:
 - a. Ensure hemp produced under the license does not enter the stream of commerce as indicated in R3-4-1004(D)(2); and
 - b. All required forms and reports will be submitted as required in A.A.C. R3-4-1011.
2. Once a research institution is granted authorization to comply with an alternative sampling method, the Department will allow the self-reporting of results of sampling and testing under the following conditions as required under A.A.C. R3-4-1004, R3-4-1010, and R3-4-1011:
 - a. Results regarding research are shared with the public or published on the research institution's website;
 - b. The research producer provides the Department with the scope and standard operating procedures for production of hemp;
 - c. The research producer provides the Department with a disposal plan for all hemp produced including photographic evidence for verification;
 - d. The research producer allows the the Department to inspect or audit the above documentation and testing results upon request; and
 - e. Any non-compliant lots of hemp produced by a research institution shall be disposed of and reported to the department.
3. Research institutions are exempt from pre-harvest sampling of hemp crops when they comply with (1.) and (2.) listed above.
4. An exception granted under these conditions does not exempt a research producer from following all reporting and notification requirements (R3-4-1011).
5. The Department reserves the right to conduct a records inspection, sample, and test any hemp lot at any time to determine hemp THC levels (R3-4-1008).
6. Research institutions shall only be assessed a negligent violation if the THC content of a sample collected by the Department exceeds 1.0% total THC (R3-4-1012(A)(3)).

B. Production of Hemp Microgreens

Hemp Microgreens (definition): Immature hemp seedlings for human consumption that are cut-off above the soil or substrate line and harvested prior to flowering and not more than 14 days after germination. Hemp microgreens are typically between two (2) and three (3) inches in height, but not taller than five (5) inches.



1. Due to extremely low levels of cannabinoids in the very immature plants, the sampling and testing of every harvest lot is impractical and unnecessary.

2. With the short nature of producing hemp microgreens, a grower must indicate to the Department when filing a Planting Report as required by A.A.C. R3-4-1011, the the purpose of the planting is to produce hemp microgreens. An Intent to Harvest Notification (A.A.C. R3-4-1011) must be filed at the time a planting notice if filed so any necessary performance-based compliance activities can be scheduled A.A.C. R3-4-1008.
3. The Department may grant an exception to sampling under the Department's Hemp Sampling Protocol (SP 19-01) and A.A.C. R3-4-1008(C) if the Department is notified as indicated in (1.) and (2.) above.
4. An alternative compliance and sampling protocol under this exception will include:
 - a. A producer shall provide documentation to the Department, prior to planting, that demonstrates the seeds that are used to produce a hemp microgreen crop originated from a hemp variety that meets the definition of hemp by having been produced under compliance by a licensed hemp producer under a state, tribal, or federal authorized program, or from a foreign supplier that meets USDA import requirements (R3-4-1006);
 - b. Visual verification by the Department that hemp microgreen crops are being harvested within 14 days of planting and the crops do not contain flowering material (A.A.C. R3-4-1008).
5. Any hemp microgreen crop that produces any floral material, is taller than five (5) inches, or has not been harvested within 14 days of planting must be either sampled and tested pursuant to A.A.C. R3-4-1008 and SP19-01, or disposed of according to A.A.C. R3-4-1013(F).
6. An exception granted under these conditions does not exempt a producer from following all reporting and notification requirements (R3-4-1011).
7. The Department reserves the right to conduct a records inspection, sample, and test any hemp lot at any time to determine hemp THC levels (A.A.C. R3-4-1008).
8. The Department's policy on the performance based sampling in this section is found in SP21-02.

C. Production of Hemp Greens

Hemp Greens (definition): hemp leaves from immature plants germinated from seed and the plants are no more than ten (10) inches tall and are not flowering.



1. Due to extremely low levels of cannabinoids in the very immature plants, the sampling and testing of every harvest lot is impractical and unnecessary.
2. With the short nature of producing hemp greens, a grower must indicate to the Department when filing a Planting Report as required by A.A.C. R3-4-1011, the the purpose of the planting is to produce hemp greens. An Intent to Harvest Notification (R3-4-1008) must be filed at the time a planting notice if filed so any necessary compliance inspection activities can be scheduled A.A.C. R3-4-1008.
3. The Department may grant an exception to sampling under the Department's Hemp Sampling Protocol (SP 19-01) and A.A.C. R3-4-1008(C) if the Department is notified as indicated in (1.) and (2.) above.
4. An alternative compliance and sampling protocol under this exception will include:

- a. A producer shall provide documentation to the Department, prior to planting, that demonstrates the seeds that are used to produce a hemp greens crop originated from a hemp variety that meets the definition of hemp by having been produced under compliance by a licensed hemp producer under a state, tribal, or federal authorized program, or from a foreign supplier that meets USDA import requirements (R3-4-1006);
 - b. Visual verification by the Department that hemp greens crops are being harvested at no more than ten inches in height, and the crops do not contain flowering material.
5. Any hemp greens crop that produces any floral material or is taller than ten (10) inches must be either be sampled and tested pursuant to A.A.C. R3-4-1008 and SP19-01, or disposed of according to A.A.C. R3-4-1013(F).
 6. An exception granted under these conditions does not exempt a producer from following all reporting and notification requirements (R3-4-1011).
 7. The Department reserves the right to conduct a records inspection, sample, and test any hemp lot at any time to determine hemp THC levels (A.A.C. R3-4-1008).
 8. The Department's policy on the performance based sampling in this section is found in SP 21-02.

D. Hemp Transplant and Mother Plant Production

Hemp Transplants (definition): hemp seedlings, rooted cuttings, immature plants produced from tissue culture, or other means of reproduction, which are not harvested but transplanted into a large container or field to mature for harvest.



Hemp Mother Plants (definition): Immature cannabis plants with a THC concentration of 0.3% or less that are used for cloning purposes.

The movement of transplants from their original location to the crop production location is not considered a harvest.

Hemp mother plants may be sampled any time, but may be exempt from future sampling if those results are 0.3% THC or less. Mother plants that are intended to be harvested or leave the registered growing area must be sampled and determined compliant with an allowable THC concentration.



1. A hemp producer that intends to produce hemp transplants or mother plants must obtain a hemp nursery license issued by the Department prior to planting a crop for that purpose (A.A.C. R3-4-1003).
2. Hemp producers that have obtained a hemp nursery license from the Department to produce hemp transplants may be exempted from standard sampling under A.A.C. R3-4-1008 and the Department's Hemp Sampling Protocol (SP19-01). Due to extremely low levels of cannabinoids

in the very immature plants, the sampling and testing of every harvest lot is impractical and unnecessary.

3. Hemp producers that have obtained a hemp nursery license to produce hemp mother plants may be exempted from standard sampling under A.A.C. R3-4-1008 and the Department's Hemp Sampling Protocol (SP19-01), but must have THC concentration compliance determined prior to using the mother plants for propagative purposes.
4. Compliance oversight under this exemption will include:
 - a. Verification that the producer is able to provide documentation to the Department that demonstrates the seeds that are used to produce transplants of mother plants originated from a hemp variety that meets the definition of hemp by having been produced under compliance by a licensed hemp producer under a state authorized program, or from a foreign supplier that meets USDA import requirements (A.A.C. R3-4-1006).
 - b. Visual verification by the Department that hemp transplants are not produced to a mature flowering state (R3-4-1008).
 - c. Verification that any hemp mother plants are sampled and determined compliant with THC concentration levels prior to use for cloning.
5. Any hemp seedling or transplant crop that produces any floral material must be either be sampled and tested pursuant to A.A.C. R3-4-1008 and SP19-01, or disposed of according to A.A.C. R3-4-1013(F).
4. An exception granted under these conditions does not exempt a producer from following all reporting and notification requirements (R3-4-1011).
5. The Department reserves the right to conduct a records inspection, sample, and test any hemp lot at any time to determine hemp THC levels (A.A.C. R3-4-1008).
6. A hemp producer that is authorized to produce hemp transplants may request a certificate from the Department for the interstate shipment of specified harvest lots of hemp transplants that meet the performance based protocol in section (E) (A.A.C. R3-4-1006).
7. The Department's policy on the performance based sampling in this section is found in SP21-02.