

<p>ARIZONA DEPARTMENT OF AGRICULTURE</p> <p><u>SUBSTANTIVE POLICY STATEMENT</u></p> <p>PLANT SERVICES DIVISION</p> <p>Industrial Hemp Sampling Method</p>	<p>DIVISION/ PROGRAM PSD</p> <hr/>
	<p>SP 19-01</p> <hr/>
	<p> SIGNATURE</p> <hr/>
	<p>9/12/19 DATE</p> <hr/>

This substantive policy statement is advisory only. A substantive policy statement does not include internal procedural documents that only affect the internal procedures of the agency and does not impose additional requirements or penalties on regulated parties or include confidential information or rules made in accordance with the Arizona administrative procedure act. If you believe that this substantive policy statement does impose additional requirements or penalties on regulated parties you may petition the agency under section 41-1033, Arizona Revised Statutes, for a review of the statement.

1. BACKGROUND

The Plant Services Division provides regulatory oversight for the production of industrial hemp in the state. During inspections of crops or plants an inspector may collect a representative sample to determine compliance for total Delta-9 Tetrahydrocannabinol (THC) concentration and the provisions in A.R.S. § 3-316 and A.A.C. R3-4-1008.

A.A.C. R3-4-1008(C) requires the Department to publish a policy on the method used by the Department to collect a sample of a plant or crop. This policy describes the Department's current approach to sample collection.

2. POLICY

To comply with the requirements for total concentration of Delta-9 THC sampling and testing under A.R.S. § 3-316 and A.A.C. R3-4-1008, all sampling must be conducted as described in this policy.

A. General Sampling Requirements

1. Official regulatory sampling may only be performed by the Arizona Department of Agriculture (Department). Samples collected for un-official analysis by a licensee should follow this policy to help reduce the standard deviation of analytical results. Only the Arizona State Agricultural Laboratory (SAL) or a third party laboratory certified by the SAL, herein referred to as laboratory, may run official regulatory samples.
2. For the 2019 growing season, all sampling performed by the Department, herein referred to as sampler, shall be in accordance with A.R.S. § 3-314, 3-145, and this protocol. All samplers must complete sampling training with the Department or the SAL.
3. All samplers must follow chain of custody procedures consistent with Department protocol and be documented to record the collection, transport, and receipt of samples

by the Department or laboratory. A laboratory must maintain records for each harvest lot as identified by harvest lot identifier.

4. Sampling must produce a representative sample of the harvest lot.

5. Composite samples should be taken for each variety in a growing area or contiguous growing area.

6. A sampler and laboratory must avoid contamination of the non-sampled material with sample containers that are free of analytes of interest and appropriate for the analyses requested.

7. Samples should be collected from the inflorescence including foliage leaf material, involucre leaves and buds. While stems and seeds may be collected during the process to speed sampling, they will be removed for testing purposes during lab processing.

8. Each composite sample should be divided into three split testing specimens, all labeled the same. a) One specimen will be used for compliance testing and reporting.

b) One specimen will be retained for retesting if necessary. c) One specimen will be provided to the grower for separate analysis of the licensee's choice (i.e. cannabinoid profile, etc.).

9. The sample retained for retesting as described in section A(8)(b) will be in the custody of the SAL for thirty (30) days after collection. If no confirmation of results is requested by a licensee the retention sample will be disposed at the discretion of the SAL. If the confirmation of results is requested by the licensee, the retention sample will be retained for an additional thirty (30) days. The licensee is responsible for the fees described in A.A.C. R3-4-1005(G) and Table 1.

10. Only total concentration Delta-9 THC results from the compliance testing or retention sample may be used for official regulatory results.

11. Samplers must obtain a sufficient sample size to provide sufficient material to conduct all requested tests, any requested retest, and any quality control performed by the testing laboratory. In no instance shall an individual sample weigh less than 4oz (113g) and 12oz (339g) total for split samples, which is the minimum amount necessary for laboratory tests and file samples.

11. Samplers must ensure collected samples are kept cool (not to exceed 45° F (7° C)) and secured while in transit. Only use ice packs and keep sample storage container dry.

B. Sampling Equipment

The sampler should bring the following equipment at a minimum:

- Inspection Forms
- Garden shears/clippers
- Alcohol wipes or disinfectant
- Disposable nitrile gloves
- Brown paper sample bags
- Marker
- Chain of custody form
- Chain of custody seal
- Sampling record form
- Aerial View Map(s)
- Bucket
- Cooler/Ice Packs

C. Sampling Procedure

1. The sample pattern must ensure that all parts of the field are adequately and proportionately represented in the plants inspected and sampled.

2. The sampler must use a saw tooth pattern when sampling the field when possible.

Two (2) saw tooth patterns are provided below. The approved sampler must choose one of the patterns most suitable for the field to be sampled. (Figure 1 and 2). The sampler must sample according to the pattern to the extent possible but may deviate from the pattern as necessary to account for particular field conditions and to ensure that all parts of the field are adequately and proportionately sampled to produce a representative sample.

3. Samples should be collected from the top portion of the plant.
4. Samples should be collected from the inflorescence including foliage leaf material, involucre leaves and buds, and shall be approximately 6in to 8in (15cm to 20 cm) length (plant head). Samplers should avoid sampling dead, diseased, or mechanically injured plants.
5. Garden shears/clippers must be cleaned with alcohol wipes or disinfectant between each sample collected.
6. A sample shall consist of one plant head per plant, from approximately thirty (30) plants. If a limited number of plants are available, the minimum sample size requirement under section A(10) must be met. Cut plant head samples into thirds, place into a bucket, and gently homogenize the sample.
7. For greenhouses, small fields, or when sampling from a known number of plants, the Hypergeometric Table (Table 1.) below should be used.
8. Place an equal amount of the homogenized sample into three (3) separate sample bags (specimens).
9. Specimens shall be sealed and recorded for chain of custody in preparation for transport to the lab, and all additional laboratory preparation and transportation specifications should be followed.
10. On the sample bag, record the harvest lot number, official sample number, sample date, collector's name, location ID#, and grower's license number.
11. Complete a chain of custody form that is signed and dated by the sampler and licensee or licensee's representative.

D. Custody Seal & Chain of Custody

1. All samples shall be sealed and include a completed chain of custody.
2. All custody seals and sample containers shall be intact upon receipt by a laboratory.
3. Any samples submitted with a broken or removed custody seal, or sample containers that are not intact shall null and void any official results.
4. Only custody seals that maintain the integrity of sample shall be used.
5. The custody seal of each sample shall be signed and dated by the sampler.
6. The laboratory shall maintain logs and records of custody seals and chain of custody documents.
7. Any official sample received by the laboratory that is not intact or is not accompanied by correct custody documentation shall be reported to the manager of the laboratory and to the Department contact listed on the chain of custody.
8. Only samples submitted by the Department may be used for official results.

Saw Tooth Patterns:

Figure 1. This is a typical saw tooth pattern starting in the lower “left” corner of the field. The yellow dots indicate the approximate locations to collect samples.

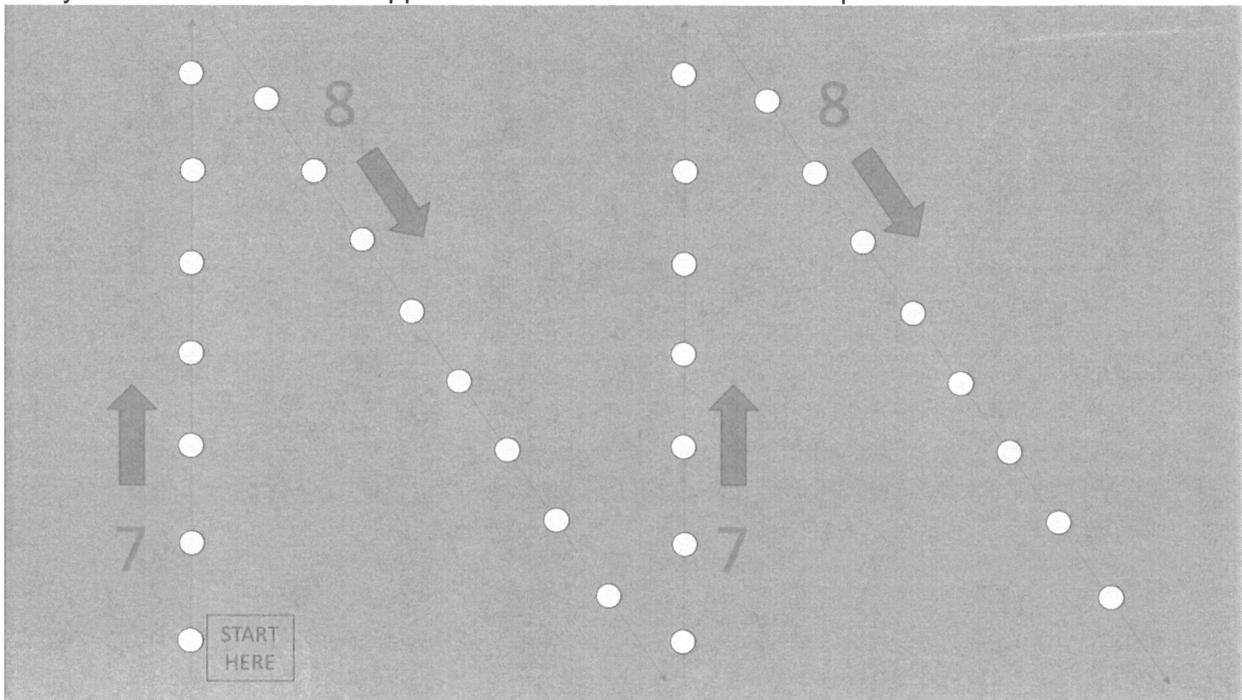


Figure 2. This is another typical saw tooth survey pattern starting in the top “left” corner of the field. The yellow dots indicate the approximate locations to collect samples.

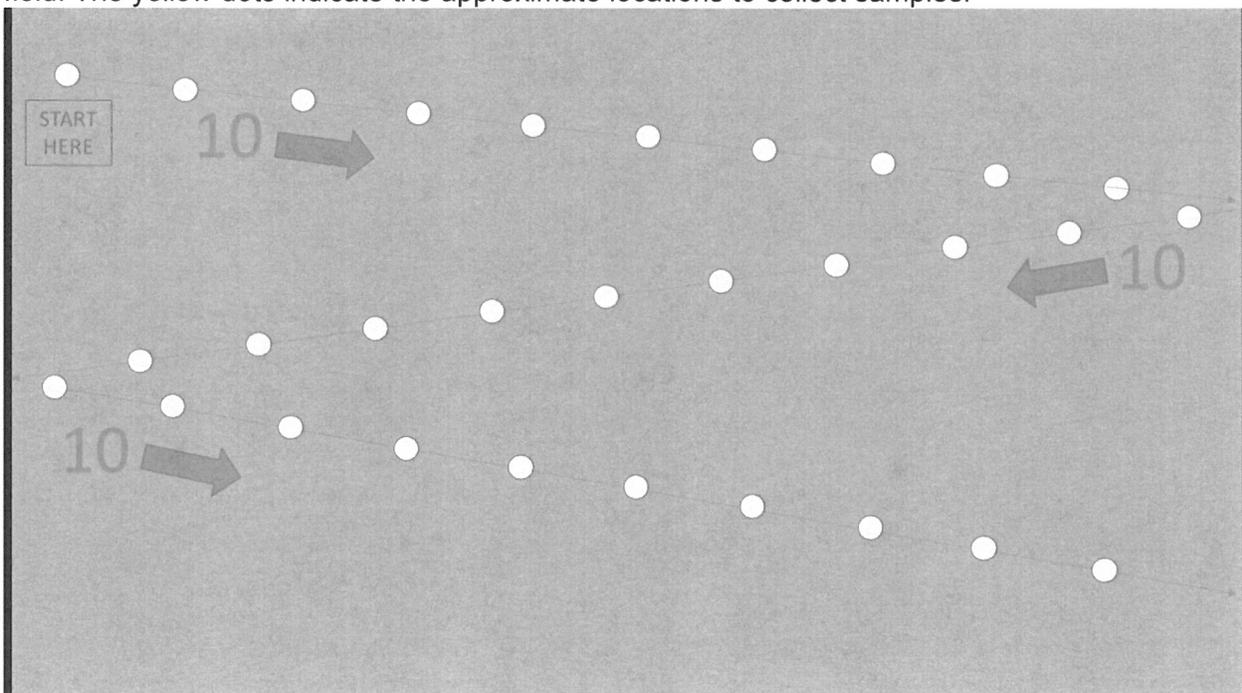


Table 1. Hypergeometric Table

Total number of plants:	Randomly select this number of plants to sample:	Total number of plants:	Randomly select this number of plants to sample:
1-13	Sample all plants	39-44	21
14-15	13	45-53	22
16-17	14	54-65	23
18-19	15	66-82	24
20-22	16	83-108	25
23-25	17	109-157	26
26-28	18	158-271	27
29-32	19	272-885	28
33-38	20	886-200,000	29

3. EFFECTIVE DATE

This policy is effective immediately and shall continue in effect until repealed, modified, or superseded.