

Seed Sampling 101

Seed testing begins with the sampling process. No matter how accurately an analysis is made, it can show only the quality of the sample submitted; therefore, it is the responsibility of the seed sampler to assure that the sample is representative of the seed lot.

DEFINITIONS

Primary Sample: each probe, trier, or handful of seed removed from the lot. (Figure 3a.)

Composite Sample: formed by combining and mixing thoroughly the primary samples prior to submission for testing. (Figure 3b. & 3c.)

Submitted Sample: sample is subdivided from the composite and submitted to laboratory for testing (Figure 3d).

Working Sample: the sub-sample obtained by dividing down the submitted sample and is used in a laboratory test.

Sampling Bagged Seed (AOSA Rules Chapter 1.3a)

Number of containers in lot	Minimum number of containers to sample	Number of containers in lot	Minimum number of containers to sample	Number of containers in lot	Minimum number of containers to sample
1-4	5	75-84	13	175-184	23
5	5	85-94	14	185-194	24
6	6	95-104	15	195-204	25
7-14	6	105-114	16	205-214	26
15-24	7	115-124	17	215-224	27
25-34	8	125-134	18	225-234	28
35-44	9	135-144	19	235-244	29
45-54	10	145-154	20	245	30
55-64	11	155-164	21	--	--
65-74	12	165-174	22	--	--

AOSA Rules For Testing Seeds, 2018.

Sampling Mini Bulk Containers (AOSA Rules Chapter 1.3b)

Lot Size	Number Primary Samples to be taken
1 container	At least 5 primary samples from different sections of the container
2-10 containers	At least 6 primary samples. If fewer than 6 containers are in the lot, an equal number of primary samples must be taken from each container.
11 containers or more	At least 6 primary samples, each drawn from a different container

AOSA Rules For Testing Seeds, 2018.

Sampling Bulk Bins, Trailers Tank, etc. (AOSA Rules)

To obtain a representative sample, take at least as many primary samples as if the same quantity of seed were in containers of a size customarily used for such seed. Take the primary samples from well distributed points throughout the bulk. A partitioned trier is recommended for sampling any bulk containers (Figure 1).



FIGURE 1. Partitioned Trier

DOUBLE SLEEVE PROBE USAGE:

- 1) Clean trier prior to use.
- 2) The trier is carefully inserted into the container in the closed position until it reaches the opposite corner of the container. The outer tube opening must be facing upward. Care should be taken not to push the trier through the opposite corner of the container.
- 3) The trier is opened until the inner and outer openings are aligned and agitated slightly to allow the openings to fill.
- 4) The trier is gently closed (to point of resistance) and withdrawn.
- 5) Each primary sample must be placed into a suitable clean container(s) (pan/pail) to allow for checking for uniformity.

NOTE: If you are sampling vertically, a **partitioned** trier is required.



FIGURE 2. Double sleeve probe



FIGURE 3a. Drawing a primary sample



FIGURE 3b. Combine primary samples to form composite sample



FIGURE 3c. Mix composite sample and reduce to submitted sample

SUBMITTING SAMPLES:

Mix composite sample and reduce by halving to a suitable size and submitted sample (Figure 3c). Submit samples to the laboratory or office immediately after sampling preferably in a plastic bag (Figure 3d). Use of plastic bags that are 4-6ml prevent swings in seed moisture. If this is not possible, store samples in a cool dry area until they can be delivered. Extreme moisture and temperature changes can affect the quality of the sample so the dashboard and/or floor of your pickup are not ideal storage conditions.



FIGURE 3d. Package and label submitted sample

ISTA Authorized Seed Sampling courses available at SoDak Labs.

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