

Seed Testing Definitions

I. Introduction

This document has been prepared by the AOSA and SCST to assist individuals working in the seed industry with understanding the seed testing requirements/ use of the AOSA Rules for Testing Seed for labeling seed for sale in the U.S.

The laboratory testing for law enforcement, labeling, or seed quality purposes should determine the following for the sample analyzed:

A. Purity Composition

% Pure Seed	% Inert Material	% Other Crop Seed	% Weed Seed*
*Number found and rate of occurrence of noxious-weed seeds per unit weight			

B. Germination/Viability

% Germination	% Hard Seeds*	% Dormant Seeds*	% Total Viable**
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*If applicable ** If applicable, AOSA Definition of Total Viable = germ + hard seed + dormant seed

II. Sampling

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 ensure that the sample is representative of the seed lot. Principles and procedures are found in the following literature:

- A. Association of Official Seed Analysts. AOSA Rules for Testing Seeds Vol. 1 Principles & Procedures. Section 1.
- B. Association of American Seed Control Officials. 2010. AASCO Handbook on Seed Sampling.
- C. Federal Seed Act Regulations. 2011. Sampling in the Administration of the Act, Sections 201.39 – 201.44.

III. Purity Analysis

The objective of a purity analysis is to determine the physical composition of the working sample. The purity working sample is separated into the following components:

- A. Crop kind and/or cultivar to be considered pure seed
- B. Other crop seed
- C. Inert matter
- D. Weed seed

Each of the four component parts is weighed and a percentage is calculated from the sum of the four component parts. This purity information is used to label the seed for sale and is reported on the analyst's Report of Analysis.

A. Definitions:

1. **Pure Seed:** Includes all seeds of each kind and/or cultivar under consideration which are present in excess of 5% of the whole (whole meaning the sum of the four components).