



**American Seed Trade Association**  
**Adventitious Presence Q & A**

***What is adventitious presence in seed?***

While there are different aspects to adventitious presence, a common reference is to the unintended or unintentional presence of another seed variety or genetic material, and/or trait(s) from another variety as a result of natural, mechanical or human means. While the other seed variety, genetic material or trait could be from a variety that was conventional or one that was improved through biotechnology, the term is often associated with the latter. For example, the detection of trace amounts of biotech material in traditional seed would be referred to as adventitious biotech presence.

***Isn't each commercial seed variety genetically pure?***

The vast majority of each seed bag is required by U.S. law to contain only the variety or varieties specified on its label. However, since seed is produced in and subject to open environments, no commercial seed, whether conventional or biotech seed, is 100 percent genetically pure. Due to the nature of biology and the increasing use of biotech crops, it is not possible to guarantee that traditional seed will not contain a minute level of adventitious biotech material.

***Can't adventitious biotech presence be eliminated?***

Despite the U.S. seed industry implementing enhanced quality assurance measures and adhering to high varietal purity standards, it is impossible to guarantee that seed moving in international commerce today will not contain small percentages of other varieties, or trace material from other varieties, including those improved through biotechnology. With the increased application of modern biotechnology in crop production, traditional seed may be subject to minute levels of adventitious biotech material. In other words, zero was not achievable in practice before biotech crops were in the marketplace, nor is it now.

Moreover, seed is destroyed in the testing process for genetic purity, therefore, only a small percentage of a seed lot can be tested. Hence, zero tolerance of biotech material, which may only be verified by testing 100 percent of a seed lot, cannot be guaranteed.

***Is seed quality affected by adventitious biotech presence?***

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No, the adventitious presence of approved biotech traits does not affect the quality of seed or its fitness for use. As determined by the U.S. government and global scientific bodies, seed produced by modern biotechnology is as safe and wholesome as seed derived from traditional cross-breeding methods. Producers that focused on a specialty market and wish to limit the presence of biotech material should ensure the seed they purchase meets their specialized needs.

**Commercialized biotech events should be considered equivalent to any other genetic off-type in seed purity analysis.**

- Adventitious presence occurs naturally in all crops during pollination, processing, shipping, and storage.
- To meet changing requirements and remain competitive, the seed industry strives to deliver quality within biological and economic bounds.
- Current seed industry practices as described in the Federal Seed Act and the USDA Organization for Economic Cooperation and Development (OECD) Seed Schemes are adequate to deliver acceptable purity for most markets. The “truth in labeling” aspects of the Federal Seed Act have served farmers and consumers well.