

Seeds of aflatoxin-resistant corn lines available

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Six new corn inbred lines with resistance to aflatoxin contamination have been found to be free of seed-borne diseases foreign to the United States, and seeds of these lines are now available in the United States for further development toward commercialization. Agricultural Research Service (ARS) plant pathologist Robert Brown, working in collaboration with Abebe Menkir at the International Institute of Tropical Agriculture in Ibadan, Nigeria, developed the lines.

Brown works at the Food and Feed Safety Research Unit in the ARS Southern Regional Research Center in New Orleans, La. The six inbred lines have been dubbed TZAR101, 102, 103, 104, 105, and 106.

Aflatoxins are cancer-causing toxins produced by the fungus *Aspergillus flavus* after it infects agricultural commodities such as [corn](#). *A. flavus* fungi are found in soil, on crops and in air. Contamination of corn with aflatoxins is a potential health hazard to animals and humans, and causes financial losses for growers. Crop resistance has become a widely explored strategy to eliminate aflatoxins in corn because of the large amount of [genetic diversity](#) in this crop.

ARS [plant geneticist](#) Mark Millard in Ames, Iowa, arranged a quarantined growout of the seeds at the ARS station on the island of St. Croix, U.S. Virgin Islands. After quarantined seed was imported into St. Croix and planted, resulting plants and ears were inspected to ensure they were free of any foreign seed-borne diseases. This "certified" seed then was shipped to Ames, Iowa, processed, and stored in the ARS

collection.

More information: The seed can be obtained and planted in the United States for further evaluation for resistance to aflatoxin. Seed samples of these and other lines can be obtained from the ARS North Central Regional Plant Introduction Station in Ames by going to:
[www.ars.usda.gov/main/site_mai ... modecode=36-25-12-00](http://www.ars.usda.gov/main/site_main?cmsid=36-25-12-00)

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