

After breeding non-allergenic soybean over 10 years ago, researchers achieve conventionally bred version

In the United States, nearly 15 million people and one in 13 children suffer from food allergy.

Soybeans are one of the eight foods regulated by the Food Allergen Labeling and Consumer Protection Act, or FALPA. Soybean is a major ingredient in many infant formulas, processed foods and livestock feed used for agriculture. Soybeans contain several allergenic and anti-nutritional proteins that affect soybean use as food and animal feed.

A decade-long effort by University of Arizona scientists [Monica Schmidt](#) and [Eliot Herman](#) and University of Illinois scientist Theodore Hymowitz has yielded a new soybean with significantly reduced levels of three key proteins responsible for both its allergenic and anti-nutritional effects.

Back in 2003, Herman, then at the U.S. Department of Agriculture, made national headlines when he and his colleagues addressed P34 as the soybean's key allergen, and genetically engineered it out of the crop. But testing was impeded by its transgenic production especially in key applications such as infant formula.

To circumvent the issue, Herman, Schmidt and Hymowitz set out to create a similar soybean using conventional breeding methods.

"We really believed in this goal and wanted to produce an enhanced soybean that could be used," said Herman, who also is a member of the UA's [BIO5 Institute](#). "That became the motivation for using conventional breeding rather than the transgenic approach."

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: [Low-Allergen Soybean Could Have High Impact](#)