

Public release date: 23-Jul-2007

[[Print Article](#) | [E-mail Article](#) | [Close Window](#)]



Contact: Laurie Gengenbach

l_gengen@ncat.edu

336-334-7048

North Carolina A&T State University, School of Agricultural and Environmental Sciences

N.C. A&T food scientist develops process for allergen-free peanuts

GREENSBORO, N.C. – An agricultural researcher at North Carolina Agricultural and Technical State University has developed a simple process to make allergen-free peanuts. The new process – believed to be a first for food science – could provide relief to millions of peanut allergy sufferers, and be an enormous boon to the entire peanut industry.

Doug Speight of the N.C. A&T Office of Outreach and Technology Transfer said food companies are showing a strong interest in licensing the process, which does not degrade the taste or quality of treated peanuts, and might even render them easier to process for use as a food ingredient.

Immunoassays showed 100 percent inactivation of peanut allergens in whole roasted kernels, and the processed peanuts showed no reaction in tests on human serums from severely allergic individuals. The inventor, Dr. Mohamed Ahmedna, is optimizing the process further to remove allergens from other foods.



“We are extremely pleased that we were able to find such a simple solution to a vexing problem that has enormous economic and public health ramifications, both for peanut sensitive individuals, and the food industry as a whole,” said Ahmedna, associate professor of food science in N.C. A&T’s School of Agriculture and Environmental Sciences.

Dr. Mohamed Ahmedna

[Click here for more information.](#)

Peanut and tree nut allergies are the most severe of all food allergies, affecting approximately 3 million Americans, and causing 100 – 150 deaths from anaphylactic shock annually and many more hospitalizations. In industrialized nations, the allergy has been rapidly increasing in children, for causes that are not entirely understood. One study showed that between 1997 and 2002, peanut allergies in children doubled in the United States. Today, an estimated one percent of all children suffer from the allergy.

Life can be stressful for families with peanut sensitive children, who must take extraordinary precautions to prevent contact with even small traces of peanuts or peanut dust. Tracking, record-keeping and labeling for peanuts is costly for industry, while schools and other institutions that serve the public have limited their use due to concerns about public health and liability.

Ahmedna’s work on peanuts has been funded through a United States Agency for International Development grant. During the course of the project, he has developed many other value-added products and processes for the benefit of the peanut industry worldwide, including a process to remove a common mold toxin from peanuts, a low-fat, high protein meat substitute, an infant formula, and antioxidants from red peanut skins. The allergy-free peanut is the first in a portfolio of peanut innovations to be available for commercialization from N.C. A&T.

Ahmedna's process is expected to add value to a crop that is already economically and nutritionally important. Peanuts are the 12th largest crop in the United States, with a farm value of close to \$1 billion a year. The Southeast is the main peanut producing region in the nation. Worldwide, the legume is even more important from an economic development standpoint. In developing nations, and Africa in particular, the soils and climate are especially suitable for peanuts.

Peanuts are not only important commercially, but nutritionally as well. Packed with proteins, healthy fats and a broad array of essential vitamins and minerals, they are considered an almost complete food. Their rich flavor, nutrition, fat and protein profile makes for a nearly perfect food from a food processing standpoint as well.

From his lab at Tuskegee University in the early 1900s, the famed agricultural chemist George Washington Carver discovered approximately 300 food and non-food products from the legume. But despite their versatility, the allergy issue has caused the peanut to be viewed increasingly with caution. That might change, thanks to Ahmedna's work at NC A&T.

###

[[Print Article](#) | [E-mail Article](#) | [Close Window](#)]

