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Public Response to New Technologies in Food Depends on the Type of Tech

There's a lot of interest in how the public will respond to incorporating new technologies, such as nanotechnology or genetic modification (GM), into food products – but it can be difficult to tell which technologies will be widely accepted. A recent study highlights the complexity of the issue and shows that different factors may come into play when people make decisions about whether to buy GM food versus when they make those decisions about “nano-food.”

A paper published earlier this month in the *Journal of Nanoparticle Research* evaluated various factors that influenced the willingness of consumers to buy GM food and nano-food. The findings stem from an analysis of a nationally representative survey the researchers conducted of 1,117 U.S. consumers.

And the findings show that consumers appear to view the technologies differently.

“In our national survey, the preference for GM food labeling didn't significantly influence willingness to buy,” says Jennifer Kuzma, corresponding author of the paper, professor in NC State's School of Public and International Affairs and co-director of the Genetic Engineering & Society Center.

“For example, if a consumer desires GM foods to be labeled, s/he may not be any more or less likely to buy them. But the same was not true for nano-food. A stronger desire for nano-foods to be labeled correlated with a lower willingness to buy nano-foods.

“The exact meaning of these results will need further investigation, but they suggest that while nano-food labeling may assist with consumer purchasing decisions, GM food labeling is desired by consumers for different reasons.”

The survey results revealed other differences as well. Consumers who trusted the government to manage GM food responsibly were more likely to want the government to place restrictions on GM food. But for nano-food, trust in the government was not tied to a preference for government restrictions.



The researchers also found that women were more likely to prefer labels on GM food, and that people who identified as being more religious were more willing to buy GM food. Gender and religion didn't appear to influence consumer views toward nano-foods.

"There seem to be more issues involved with GM foods – values and moral judgment seem to come into play" Kuzma says. "For policymakers and industry, this highlights the need to do more than just emphasize the science when communicating with the public about GM foods. Consumer attitudes are more complicated, involving issues related to trust and personal values."

Co-authors of the paper, "*Investigating factors influencing consumer willingness to buy GM food and nano-food*," are Chengyan Yue, a professor at the University of Minnesota (UM), graduate student Shuoli Zhao of UM and Christopher Cummings, a professor at Nanyang Technological University in Singapore. The work was supported by the Food Policy Research Center at UM under a grant from the U.S. Department of Agriculture's National Institute of Food and Agriculture, NIFA 2012-70002-19403.

Authored by Matt Shipman,
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