



HOW TEENS PERCEIVE MODERN AGRICULTURE AND GLOBAL FOOD SECURITY

Survey Conducted May 2016

EXECUTIVE SUMMARY

Modern agriculture is tasked with an enormous challenge – by 2050 the earth's population is expected to grow to 9.7 billion people requiring an increase of 70 percent in food production* with limited natural resources and an aging workforce. Yet, 98 percent of Americans have no direct connection to farming. This highlights the need to increase awareness and dialogue around the agriculture industry's role in addressing continued access to nutritious and affordable food, and the importance of engaging younger generations to consider careers in agriculture. But what are teens' perceptions of farmers, farming and the global food challenge facing future generations?

Land O'Lakes, Inc. sought to find out by surveying more than 500 teens, ages 13-16 in an online survey administered by Carbonview in May 2016.

RESEARCH REVEALS MISPERCEPTIONS OF MODERN FARMING AMONG YOUTH

When asked about the characteristics and qualities teens associate with U.S. farmers, 94 percent acknowledge that farmers are hard working. But it's clear that they don't understand what they really do, as only 15 percent of respondents consider farmers to be "technologically advanced."

WHICH OF THE FOLLOWING PHRASES DO YOU ASSOCIATE WITH U.S. FARMERS?



Teens' perceptions of farming indicate that they don't see farmers as part of a high-tech global economy.

Nearly 58,000 high-skill agriculture-related positions are expected to be available by 2020, 27 percent of which will require a STEM education.

According to the U.S. Department of Agriculture Jobs Report, 2015

*UNEP: New Report Offers Menu of Solutions to Close the Global Food Gap, December 2013

TEEN REACTIONS WHEN CONFRONTED WITH THE GLOBAL FOOD CHALLENGE

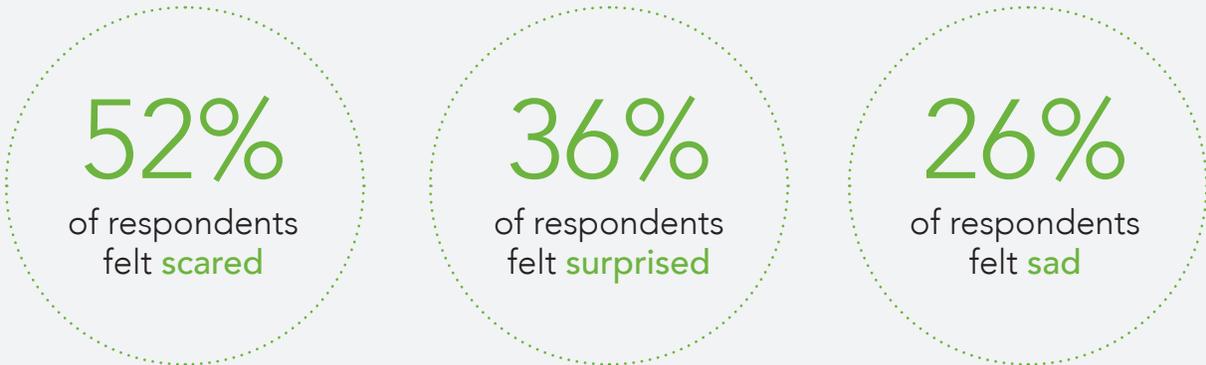
The survey presented respondents with the realities of the global food challenge facing future generations with this statistic:

By 2050, the global population will reach 9.7 billion. We will need to produce 70 percent more food than we currently do in order to feed the world's population in 2050.

UNEP: New Report Offers Menu of Solutions to Close the Global Food Gap, December 2013

When asked how the reality of that global food crisis made them feel, all respondents ranked their emotions as scared, surprised or sad, illustrating that this issue is not being adequately addressed among the generation that will inherit this enormous challenge.

HOW DOES THIS STATEMENT MAKE YOU FEEL?



DISCONNECTED FROM MODERN AGRICULTURE

More than 90 percent of teen respondents said they believe farming is important to ensure adequate food supply in the future. Even more (94%) believe farmers are important to the U.S. economy. Yet, a majority of teens surveyed (64%) say they don't know anyone who works in agriculture.

DO YOU KNOW ANYONE WHO WORKS IN AGRICULTURE?



TEENS' INTEREST IN CAREERS REVEALS MISPERCEPTION ABOUT AGRICULTURE

When asked about their interest in a number of careers, half of teens responded positively to technologist, followed by scientist (44 percent) and engineer (41 percent). But only 19 percent expressed an interest in agriculture, and even less than that, 16 percent, in a career as a farmer.

The agriculture industry offers a vast variety of career opportunities – 200 to be exact, according to the Agriculture Council of America.

According to the USDA's 2015 Jobs report, more than 20,000 agriculture jobs go unfilled each year.

The survey shows that teens are largely not aware that their innate interest could be fulfilled through a career in the agriculture industry.

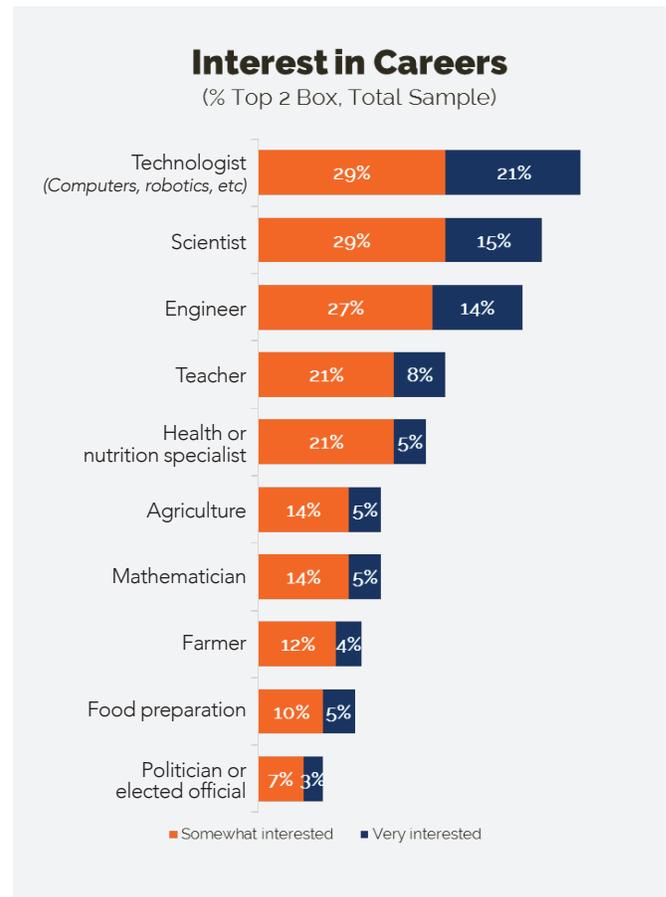
For teen boys, 80 percent responded with an interest in technologies like GPS, data science, robotics and drones and nearly half of girls surveyed had a similar interest. These are the types of high-tech tools not only used in modern farming, but which farmers have pioneered with many of their more-advanced applications.

A recent Federal Aviation Administration report predicts that commercial drone usage is expected to increase from 600,000 to 2.7 million by 2020, with agriculture forecasted to be the third largest market for commercial drone use.

FAA Aerospace Forecast, March 2016

Only 3 percent of college grads and 9 percent of Millennials surveyed have or would consider an agriculture career.

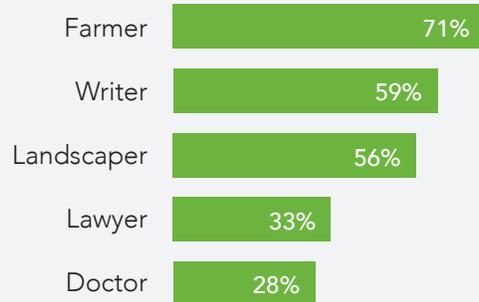
Land O'Lakes, Inc., ORC International Ag Career Research, Conducted February 2016.



DRIVEN BY AN ENTREPRENEURIAL SPIRIT

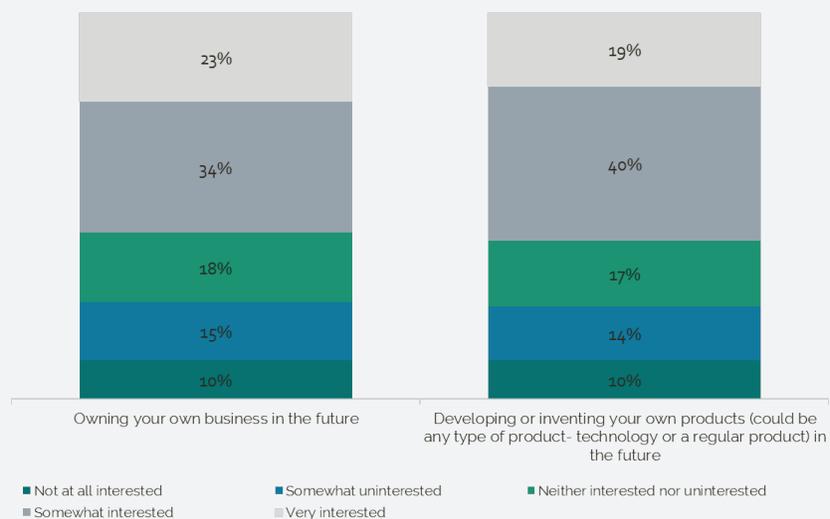
When asked about the careers they most closely associate with “owning your own business,” teen respondents ranked farmers at the top of their list at 71 percent.

TEENS RANKED CAREERS MOST ASSOCIATED WITH “OWNING YOUR OWN BUSINESS”



The survey also revealed that a majority of teens, 57 percent, have a passion for owning their own business someday. Slightly more, 59 percent, want to develop or invent their own product or technology.

INTEREST IN ENTREPRENEURSHIP (TOTAL SAMPLE)



Land O'Lakes is committed to sharing the story of modern agriculture with young people, their families and the broader American population, as we need to work together to solve the looming global food challenge. By pulling back the curtain on modern agriculture and demystifying perceptions of farmers, Land O'Lakes drives to inspire the next generation of innovators and entrepreneurs to become problem solvers and leaders in agriculture to ensure continued access to nutritious and affordable food for everyone. Through this survey, the industry gains a deeper understanding of teens' perceptions, interests and attitudes towards agriculture and farming. In summary, there is promise in tying this younger generation's passions to exciting and meaningful careers in the greatest growth industry of our generation.

The research was discussed as part of the *Fields of the Future* broadcast live from Fair Oaks Farms in Indiana on June 15, 2016. Industry experts gathered to discuss the importance of taking the conversation about food and agriculture beyond the field, the future of farming as an industry, and the importance of demystifying the modern farmer to ensure continued access to nutritious and affordable food.

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The survey referenced in this summary was conducted from May 18-21, 2016 and surveyed 503 teenagers through a 15-minute online survey to explore U.S. teens' perceptions of agriculture, world food supply issues and entrepreneurship.