EXTENSION CENTER FOR YOUTH DEVELOPMENT

4-H Science of Agriculture

BECAUSE A U.S. Department of Agriculture survey showed the United States faces a shortage of agricultural scientists. A decline in students pursuing agricultural sciences as well as a decrease in the number of university departments teaching these subjects has been a consequence of almost two decades of reducing public investment in agricultural research and education.

Agriculture relies on the use of technology and science. The use of precision agriculture, robotic milking on dairy farms, and biocontrol of pests are all on based on science, engineering and technology. However, statistics show that children lose interest in STEM (science, technology, engineering and math) topics as early as third grade. In addition studies have shown that 80 percent of what kids in K-12 learn comes outside the formal classroom.

UNIVERSITY RESPONSE As part of the University of the Minnesota Extension Center for Youth Development, 4-H has made improving science literacy a priority, and is working to develop the next generation of agriculture scientists. A study of youth development by Tufts University shows that young people who participate in 4-H excel in school and science, and are more likely to pursue a career in science, engineering or computer technology than their peers. 4-H's hands-on interactive programs expose youth to cutting-edge technology in agriculture that produces abundant, healthy and economical food. In addition, an annual 4-H Science of Agriculture Challenge will ask teams of youth to work with agriculture experts explore and develop science-based solutions to agriculture-related issues they have identified in their communities.

IMPACT 4-H provides “hands on” science learning experiences that teach science, technology, engineering and math principles, and spark the interest of the youth in science, math and agriculture. As a result, youth learn about cutting edge technology that agriculture uses to produce abundant, healthy and economical food, explore agricultural-related studies at the university level and consider future careers in agriculture.

To learn more about 4-H Science of Agriculture opportunities, go to www.extension.umn.edu/youth/mn4-H/projects/set/