

Virginia State Agency 234

COOPERATIVE EXTENSION AND AGRICULTURAL RESEARCH AT VIRGINIA STATE UNIVERSITY

Making A Difference In People's Lives In 2018



Took a multi-faceted approach to reducing America's weight-induced health crisis

01



Helped make our food safer to eat and reduce the number of foodborne illnesses

02



Helped Virginia's small farmers (94% of all of the state's farmers) build profitable and sustainable businesses

03



Shared expertise to help improve lives and economies as far afield as Ethiopia and Bangladesh

04



Provided opportunities to gain hands-on experience in agriculture-related fields

05

Here Are Examples Of How We Accomplished This

01: OBESITY

- Studied ginger's active ingredients (6-gingerol and shogaol) to determine if they can reduce the risk of obesity.
- Taught residents in the Petersburg area with pre-diabetes or those at high-risk for it how to set weight-loss goals, eat healthier and track their eating and exercise, which resulted in healthier behaviors and moderate weight loss.

02: FOOD SAFETY

- Are developing biodegradable films with antimicrobial and antioxidant activities from grape pomace extract (derived from leftover skins and seeds from winemaking) to improve food safety and reduce reliance on non-biodegradable materials.
- Studied disease-causing microorganisms in the gut of young meat goats and identified methods producers can take to improve herd health and ensure these pathogens are not passed on in the meat they sell and consumed.

03: BUILDING PROFITABLE SMALL FARMS

- Increased its outreach to the second-largest minority segment in the state's farming industry, Hispanics, by hiring two Spanish-speaking staff and hosting numerous agricultural training programs in Spanish.
- Determined after extensive research that Virginia farmers are perfectly positioned to play a bigger role in the nation's \$5.8 billion berry industry, thereby increasing their profitability and the state's economy. Extension specialists are now training Extension agents and others to help growers with berry production, food safety and marketing.
- Identified a gene in draught-resistant plant (purslane) that has shown potential to be transferred into corn and soybeans to improve the crops' heat tolerance. The last 17 years, the warmest on record, have made tolerance to increasing heat critical to sustainable staple crop production.

04: ASSISTING SOCIAL-ECONOMICALLY DEPRIVED FARMERS GLOBALLY

- Released a leaf-feeding beetle and a stem-boring weevil on farms in Ethiopia to stop the spread of parthenium, an invasive, noxious weed that threatens the livelihood of rural farmers. These bio-agents were extremely effective, saving farmers time, energy and money; they will provide long-term sustainable control of parthenium with no cost to farmers; and they will now be repeated in all parthenium-infested regions of Ethiopia.
- Efforts by a researcher to help producers and manufacturers in Bangladesh grow cassava for industrial use earned her the President's Volunteer Service Award. She taught improved production methods, created a surveillance unit to monitor pests and diseases, and developed training modules.

05: DEVELOPING THE FUTURE AG WORKFORCE

- Employed 34 VSU students at the university's Randolph Farm and Agricultural Research Station, providing them with hands-on experience in using lab equipment and in project management, critical thinking, data analysis and graphic design for scientific presentations to prepare them for terminal degrees and the workforce.
- Helped meet the growing demand for academically trained urban agriculture professionals by graduating nine participants from VSU's Sustainable Urban Agriculture Certificate Program.
- Exposed 40 youth aged 11 to 13 to career opportunities in the lucrative field of agriculture and taught them invaluable social and life skills during a one-week 4-H iLeadership Institute.

Learn more at agriculture.vsu.edu | ext.vsu.edu



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