

VIRGINIA 4-H AGRICULTURAL COMMODITIES TOUR

AGENT / SPECIALIST PARTNER FOR STEM EDUCATION



AUTHORS:

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Abstract

Youth are our future. Agriculture is our lifeline. Extension merges these two vital topics together through the 4-H Agriculture Commodities Tour, bringing awareness of the necessity for both to meet on an intimate real-life, out-of-classroom experience. Despite the continual and increasing demand for educated agriculturalists, interest and enrollment in agricultural fields of study has stagnated or declined. Lack of exposure, experience and familiarity with agricultural opportunities is likely a large contributor to this problem. By connecting across the state with Extension Agriculture State Specialists and Agents at the ARECs as part of the 2016 tour, 28 inner-city youth had the opportunity of a lifetime to explore agricultural lifestyles and potential careers. Providing more than basic agricultural information books can ever provide, these youths explored the importance of sustainability and stewardship across the state through talks, demonstrations and experiential hands-on learning opportunities. In addition, while learning how agriculture relates to their lives, this also gave them an awareness of career opportunities in agriculture that interest them. Studies demonstrate these interventions yield positive in attracting youth considering agricultural fields as viable career options (McCallister, Lee, & Mason, 2005; Shivy & Koehly, 2002; Esters, 2007; Ladany, Melincoff, Constantine, & Love, 1997). Although measuring the outcome of our youth and their future is beyond the scope of this initial investment, it is hoped that this tour has made a significant impact on the youth's perception of agriculture outside of the classroom, and encourages them to seek further into this new world of possibilities.

Methodology: Growing 4-H Science

- ❖ *Growing 4-H Science*, funded by a national grant, afforded a group of 28 inner-city youth from the Richmond, VA area to experience farming outside of the classroom with hands-on experiential learning.
- ❖ Project Director, Sarah Morton and retired 4-H State Specialist Kathleen Jamison, PhD, collaborated with the partnering VSU and VT ARECs, private farmers and agriculture businesses to give youth a full spectrum of Virginia's agricultural commodities.
- ❖ Youth represented a pillar of *Character Counts!* each day by wearing the uniquely colored t-shirt which gave meaning to the printed *Character Counts!* word. Caring adults coached youth daily on these pillars.

STEM Experiential Hands-on Learning

- ❖ Youth participated in a STEM lesson, extracting DNA from strawberries to understand how farmers grow better crops.
- ❖ Youth plowed a row for cotton, realizing the full complexity of farming from seed to plant to harvest.
- ❖ Youth compared a variety of warm-season and cool-season grasses, recognizing types useful for livestock and wildlife.
- ❖ Youth wore protective clothing to simulate the experience of meat processing, safety in food handling and humane treatment of animals.

Results: Changed Perception

- ❖ Youth were excited to recognize and practice the importance of good character and received compliments from the every community.
- ❖ Farm owners and their representatives noted that the children were very engaged in the tours. They asked many intelligent and relevant questions, showing excellent manners and respect for the farm, animals, plants, property and owners.
- ❖ Adults encouraged youth to seek an occupation that they will enjoy, even if it includes long hours and hard work. Youth could see these fruitful results in the farmers' happiness.

Results: Changed Perception

- ❖ MARE Center: It was pleasing to see these youth were aware of terminology such as "sustainability" and "land stewardship." They asked many questions about the connection of plants, animals and waterways. We helped them understand about the importance of good land management practices which effect neighboring properties and the entire state.
- ❖ From Pasture to Plate: Although youth were aware of farming lifestyles from learning in the classroom and media, they experienced specifically what it takes from land ownership, caring for animals, resources of machinery and man to process foods for their families.

Impact: Youth Conclusions

- ❖ **Responsibility:** "... the impression of how hard farmers and their families work to tend to their animals and crops not just to sustain themselves, but the people the products go out to."
- ❖ **Respect:** "Women are helping out a lot more than they used to and now they work the machines and they help a lot more, and a lot of the farms we went to, women ran it, and so we got to see that women can do the same thing that men can do!"
- ❖ "What is Agricultural Commodities? I get it now!"

AREC and Private Farm Tours

- ARECs: Middleburg, Tidewater and Virginia Seafood
- VT's Human and Agriculture Biosciences Building
- VT's Hahn's Horticulture Garden
- VSU's Randolph Dairy Farm
- VT's Dairy Science Complex
- Biocomplexity Institute of VT
- Historic Hillside Farm, Robotic Dairy
- Mount Crawford Creamery
- Dayton Farmer's Market
- Route 11 Potato Chips
- James River Equipment
- Mid-Atlantic Cotton Gin
- Poseythisisit Llama Farm
- Rockingham County Fair
- Agriberry Farm

