

# TRENDS FOR AGRICULTURAL AND NATURAL RESOURCES TECHNOLOGIES

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## Overview

Envision a world in which all people are well fed, healthy and more prosperous than ever before. For centuries, people throughout the world have aspired to a high quality of life and education has long been the principle tool needed to achieve those aspirations. Just as education provides the vehicle to move us toward prosperity, agriculture provides the foundation that we need survive and prosper, through an abundant, nutritious, safe food supply and a healthy, sustainable environment.

Today, many definitions exist for the term “agriculture.” In its vision, agricultural education in North Carolina employs the phrase “food, fiber and environmental systems” to describe a very broad field, best defined by the National Research Council as, “A field that encompasses the production of agricultural commodities, including food, fiber, wood products, horticulture crops, and other plant and animal products. The terms also include financing, processing, marketing and distribution of agricultural products; farm production supply and service industries; health, nutrition and food consumption; the use and conservation of land and water resources; development and maintenance of recreational resources; and related economic, sociological, political, environmental and cultural characteristic of the food and fiber system.” This new phrase was chosen in an effort to be inclusive of and to harness the potential of the total agricultural community. *With this in mind, the mission of the agricultural and natural resources technologies program is to prepare students for success in the food, fiber and environmental systems.*

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## System Principles

The food, fiber and environmental systems workforce must be prepared to lead and agricultural industry that is constantly changing and globally-focused. Students completing courses in the agricultural and natural resources pathway will be offered the opportunity to:

- Explore multiple agricultural career opportunities and be prepared for a lifetime of learning as an agricultural professional.
- Be prepared with the technical skills they need to be successful in an agricultural career in the global economy.
- Connect schools with real world of work through agricultural work-based learning experiences.
- Develop the leadership and interpersonal skills needed to succeed in the highly competitive workplace.

The National Council for Vocational Education identified what makes people successful in their work as:

- Flexibility
  - Creativity as problem-solvers
  - Willingness to continually learn new innovations
  - Ability to set personal goals
  - Eagerness to work hard for professional and personal advancement
  - Ability to communicate and interact with peers
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Successful completion of this pathway will empower tomorrow's agricultural workforce to be prepared to succeed in the competitive global economy.

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## **The Marketplace**

The agricultural economy has gone through significant change over the past decade and the pace and impact of that is expected to escalate in the future. The marketplace is volatile as agriculture moves into a free-market economic model. However, with a growing world population and the spread of democracy and western culture around the world, the demand for food and fiber is higher than ever before.

A family of four eats an estimate 5,000 pounds of food per year and Americans spend less than 11% of their annual income on food --- lowest in the world. North Carolina receives over \$1.2 billion from agricultural exports annually.

Clearly, agriculture continues to be significant force in today's marketplace. Although changes in North Carolina's agricultural economy have occurred, especially in the tobacco industry, the state's agricultural sector continues to adapt. Today, North Carolina is ranked as the third most diverse agricultural state in the nation with top ten rankings in the following food commodities: turkeys, sweet potatoes, swine, cucumbers, strawberries, peanuts, blueberries, broilers, catfish, pecans, watermelons, apples, peaches, rye, tomatoes and chicken eggs. The demand for a highly, qualified workforce to provide the producers and surrounding support network of agri-related careers in sales, marketing, research, finance, etc. is strong for the state, nation and world. Commission of North Carolina

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