

# Today's Agricultural Education

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## **The need for Agricultural Education in American High Schools**

Agriculture and the food, fiber, and natural resource system is America's most creative, productive and basic industry. Much of this country's success in agriculture can be attributed to a sound program of education. To advance a dynamic and efficient agriculture, food and natural resource system and to assure the continued wellbeing of our society, first-rate education must continue to be a high priority. A cooperative effort among educational institutions, government agencies, and food, fiber, and natural resource-related businesses will help provide leadership for the future through enhanced education.

## **Developments shaping food, fiber, and natural resource systems**

Representatives of the food, fiber, and natural resource industry were asked to identify the most important trends and developments over the next 30 years that will shape the future of agriculture and the food, fiber, and natural resource systems. Five trends emerged as most important:

1. Accelerating globalization of markets.
  - Economic globalization with increasing population and falling trade barriers is taking us toward a more competitive international marketplace for agricultural products in which more countries will produce more kinds of foods and market them on an international scale.
2. Growing public demands for environmental protection and safe foods.
  - As production increases worldwide, pressures will grow everywhere to protect prime farmland from urban sprawl, conserve soil, safeguard water quality and fisheries, use water more efficiently, protect remaining wildlife habitats, and ensure a safe and healthy food supply.
3. Increasing reliance on technology.
  - Advances in computers, communications, information, biotechnology and other areas of technology will greatly affect education, agriculture, and the operation of the food, fiber, and natural resource systems.
4. Decline in public understanding of agriculture, food, fiber and natural resource systems.
  - The general population is increasingly cut off from both direct experience and education related to agriculture, which has serious repercussions in terms of ill-informed consumer behavior, public opinion, regulation and political decision-making.
5. A more highly trained and diverse workforce.
  - A more diverse, highly trained workforce will be needed to manage the development of food, fiber, and natural resource systems so that they will be competitive in the global marketplace and successful in an industry whose structure is changing.

### Point:

- U.S. biotechnology employs 200,000 people and is a \$39 billion industry. (Elanco Co., 2006)
- 52,000 job openings a year are added in the food, agricultural, and natural resources industries. (Elanco Co., 2006)
- Science and engineering will represent 25% of agricultural jobs in 2010. (Elanco Co., 2006)
- USDA forecast: in 2010 there will be more jobs in agriculture than graduates. (Elanco Co., 2006)

Over 800,000 students are enrolled in secondary agriculture courses across the country.

Core of agricultural education is 3 intra-curricular components:

- Classroom instruction
- Experiential learning (**S**upervised **A**gricultural **E**xperience)
- Leadership activities (**F**FA)

Over 7,000 agricultural science programs in high schools across the Nation

- 92% offer general agri-science (introductory)
- 71% offer advanced agri-science and biotechnology
- 59% offer agricultural mechanics
- 49% offer horticulture
- 43% offer animal science
- 24% offer environment-related courses

Agricultural Education Contributions:

- Provides contextual learning, applied academics, and real life applications
- Students perform better on state tests, drop out less, and have higher graduation rates
- Prepares students for college
- Teaches respect for land and environment (stewardship)
- Provides curriculum to students of all academic levels
- Provides life skills training missing in other academic offerings
- Addresses National Defense through “Feed Our Citizens SAFELY” program

Agricultural Education’s Contributions to the Workforce:

- Prepares students for careers and the workforce (there are over 300 careers relating to the agriculture industry)
- Teaches skills that are highly sought after and are transferrable to virtually any industry
- Provides highly skilled workers trained to deliver economic vitality

Agricultural Education’s Contributions to Students:

- Students develop a sense of responsibility, self reliance, and leadership skills
- Emphasizes citizenship, ethics, service learning, and patriotism
- Agricultural awareness
- Entrepreneurship
- Increases the number of graduating seniors receiving scholarships
- Builds morals, values, and self-esteem

Agricultural Education’s Contributions to the Community:

- Promotes environmental awareness
- Promotes agricultural community awareness and ownership
- Increases community service projects and service learning projects
- Provides school based businesses that address needed services for the community
- Involves and adds value to the local economy through experiential learning activities that can generate thousands of dollars in the local economy