Agricultural Literacy

“the goal of education about agriculture”

The Meatrix

Elementary school children interpret agriculture as the farmer, the cow, the tractor, the rancher, and many other stereotypes (DeWerff, 1998).
Students should come to appreciate that the species providing our food and fiber are part of a vast web of life that functions as an integrated whole. Every species of plant and animal depends not only on its physical environment but on the biological component of the environment as well. All living creatures are part of the same cycles of matter and energy. Thus, education will be incomplete unless students learn what is essential for the lives of our crops, animals, and plants. (Moore, 1987)

**Definition**

Agricultural literacy can be defined as possessing knowledge and understanding of our food and fiber system.

**Agriculturally Literate Person**

- Understanding of the food and fiber system including its history and current economic, social, and environmental significance to all Americans
- Knowledge of food and fiber production, processing, and domestic and international marketing

Committee on Agricultural Education in Secondary Schools
Agriculturally Literate Person

- Would be able to synthesize, analyze, and communicate basic information about agriculture
- Basic information
  - Production of plant and animal products
  - Economic impact of agriculture
  - Societal significance
  - Relationship with natural resources and the environment
  - Marketing, processing and distribution of agricultural products
  - Public agricultural policies
  - Global significance of agriculture

Current trends

- Most Americans know very little about agriculture, its social and economic significance in the United States, and particularly, its links to human health and environmental quality.
- Few systematic educational efforts are made to teach or otherwise develop agricultural literacy in students of any age. Although children are taught something about agriculture, the material tends to be fragmented, frequently outdated, usually only farm oriented, and often negative or condescending in tone.

Where’s the proof?

- 1986 agricultural knowledge study in KS
  - 2,000 elementary, junior and senior high school students
  - Fewer than 30% gave correct answers
- Virginia study of 244 fourth-grade students
  - Only a rudimentary concept of where food and fiber originates
  - “almost never” ask questions about agriculture.
What’s the solution

• Incorporate agriculture into existing curriculum
  • Genetics in biology
  • Plant pathology – diseases and insect transmission
  • Social science – production, trade, distribution & marketing

What teachers say

• Courses imparting the concepts and knowledge integral to agricultural literacy are not available for those preparing to teach
• There isn’t time after teaching the core curriculum to teach another subject
• Resources are not available

2002 University of Illinois study

• “I feel that teaching agriculture to my students is important” 36% SA
• “Knowledge of agriculture is beneficial to society” 61% SA
• Topics considered most important:
  • Environmental 93%
  • Conservation 89%
  • Plants & Seeds 78%
• Topics taught most in classroom
  • Apples 47%
  • Butterflies 44%
  • Pumpkins 40%
Why is agricultural literacy important?

- The earlier in life information about agriculture is presented to children, the more receptive they are to accepting and applying wholesome concepts about the topic the rest of their lives. (McReynolds, 1985)

Ag in the Classroom

- Began by USDA in 1981
- Directed through State Departments of Ag or state Farm Bureau organizations
- Incorporates agricultural instructional material and subject matter into classroom activities

Ag in the Classroom

- 49 states and D.C. have developed materials
- 2001-2002 National AITC Programs Survey Results
  - 97,846 students per state participated
  - 1,190 teachers
  - 12,220 hours spent by volunteers
Ag in the Classroom

- 66% of states sponsored a farm day tour
- 63% had sponsored an ag. fair
- Subjects offered
  - 95% animals
  - 92% nutrition
  - 89% natural resources
  - 86% agricultural careers
  - 86% environmental issues

Ag in the Classroom

- AITC makes a positive difference in student acquisition of knowledge about agriculture.
- The areas of most knowledge were
  - Theme 1 - Understanding Food and Fiber Systems
  - Theme 2 - History, Geography and Culture
  - Theme 3 - Science, Technology and Environment (teachers only)
- The areas of least knowledge by teachers and students were
  - Theme 4 - Business and Economics
  - Theme 5 - Food, Nutrition and Health

4-H

- Component of the Cooperative Extension Service
- Utilizes informal education
- 6,772,817 members in 2002
- 120,189 school-enrichment groups
- 25% live in central cities of 50,000 or larger
4-H

- Major project categories
  - Plants & Animals (25%)
  - Healthy Lifestyle Education (19%)
  - Personal Development & Leadership (15%)
  - Science and Technology (11%)

FFA

- Food for America program
  - Targeted to 1st through 6th grades
  - Designed to supplement existing curriculum
  - Helps students understand how agriculture affects their lives.
    - Example lessons:
      - the exploding cheeseburger
      - Agriculture by the numbers

Concerted Efforts

- Each organization is “doing their thing”
- Each contributes to the next generation of agricultural literacy
- How does this impact agricultural literacy right now?
Exam 3

• Thursday, November 20
• What to bring
  • Grey scantron
  • Writing utensil
• Covers lectures from 10/30 – 11/18
• 200 points, 150 M/C or T/F and 50 essay