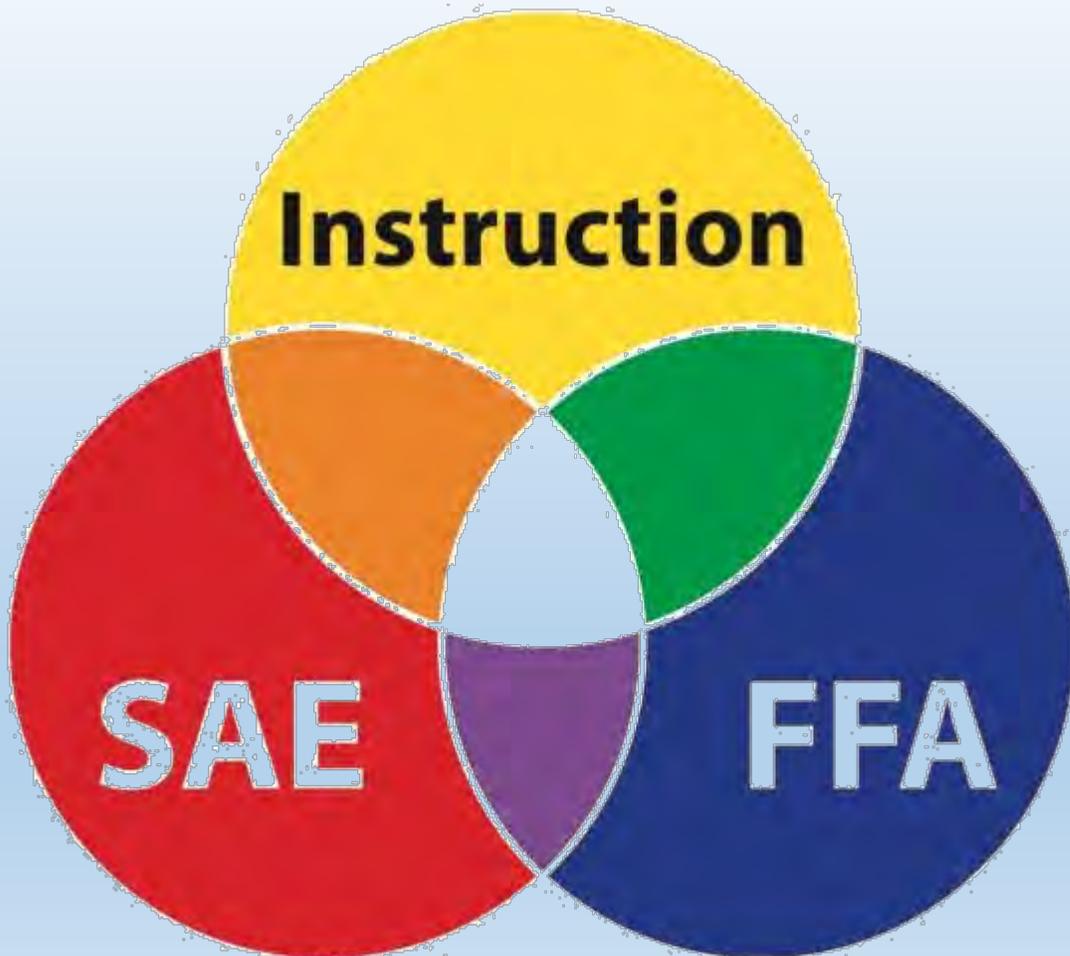


Agriscience Education and FFA Overview



Jacob Davis

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State FFA Advisor

Alabama Department of Education

Outline:

- Discuss the importance of agriculture to Alabama
- Discuss the mission of school-based agriscience education
- Discuss the 3-component model of agriscience education
 - Classroom/Laboratory
 - Cluster Description
 - Program Choices: Instructional Diversity
 - Career Readiness Indicators
 - Supervised Agricultural Experience (SAE)
 - FFA

Importance of Agriculture to Alabama:

- Agriculture, Forestry and related industries contributed \$70.4 Billion to Alabama's economy in 2010, accounting for almost 40 percent of our Gross Domestic Product (GDP).
- Twenty-two percent of the state's workforce is employed in agriculture, forestry and related industries (580,295 people).
- Food *is* important.

Source: www.alabamaagimpact.com

Specific county information can be printed from the Web site.

Alabama Labor Market Information on Agriculture:

<http://www2.labor.alabama.gov/workforcedev/AccelerateAL/Agriculture/Agriculture.pdf>



Agricultural Education/Industry Demand

- Agricultural Education Demand:
 - In 2014, there was a deficit of 411 agriscience teachers nationwide
 - In 2015-2016, there are 44 first-year agriscience teachers in Alabama
 - 34 of them are alternative certified

Source: www.naae.org/teachag



- Agriculture College Graduate Demand:
 - Nearly 60,000 High-Skilled Agriculture Job Openings Expected Annually in U.S., Yet Only 35,000 Graduates Available to Fill Them

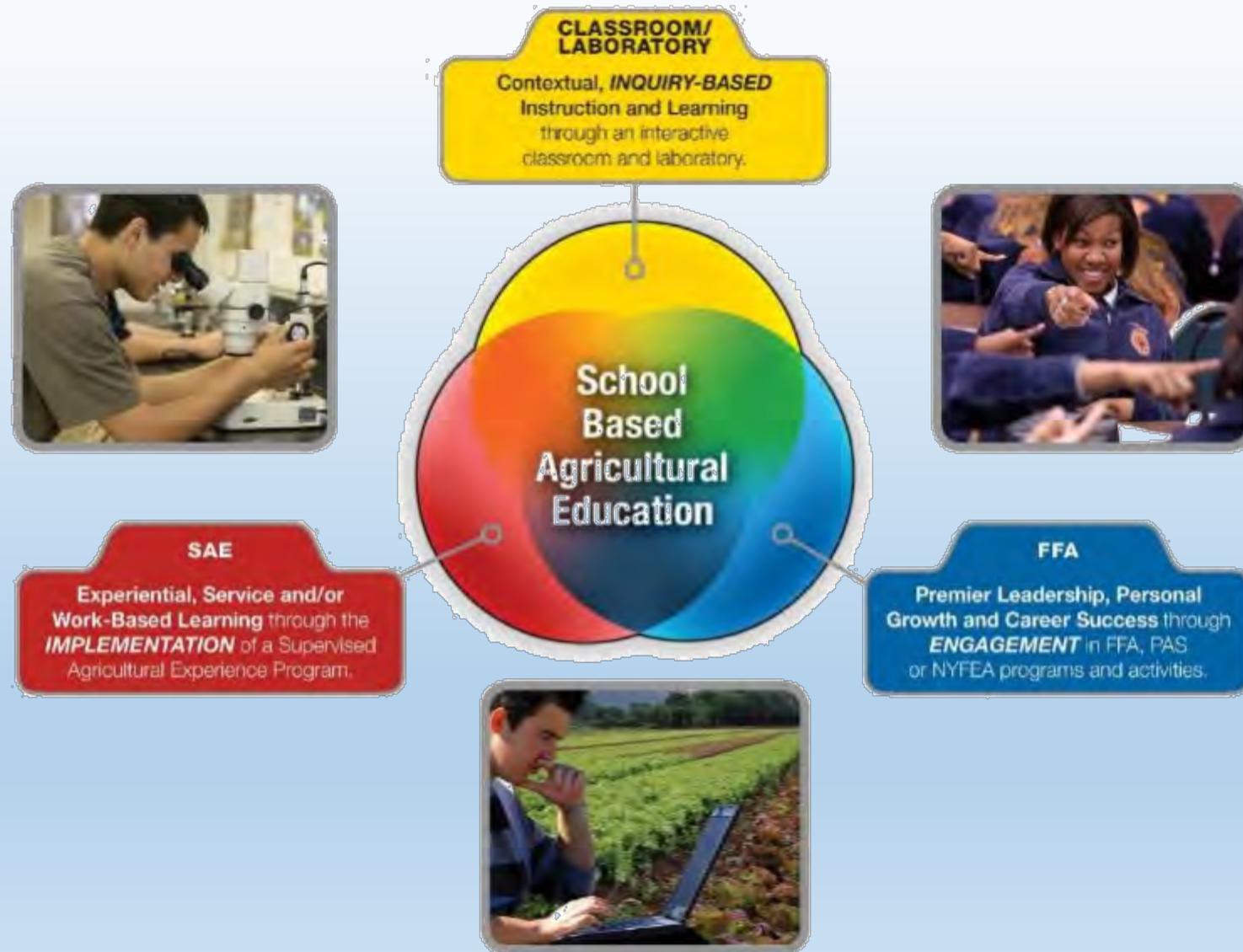
Source: <http://www.usda.gov/wps/portal/usda/usdahome?contentid=2015/05/0135.xml>

The Agriscience Education Mission:

Agriscience Education prepares students for successful careers and a lifetime of informed choices in the global agriculture, food, fiber and natural resources systems.



Three Component Model of Agriscience Education



Classroom/Laboratory Instruction:

- Career and Technical Education is divided into 16 Career Clusters.
- Agriscience Education serves the Agriculture, Food and Natural Resources (AFNR).



Web site: <http://careertech.org/career-clusters>

Classroom/Laboratory Instruction:

- Agriscience Education prepares students for careers and professional leadership in the agricultural and construction industries. In the classroom, students learn concepts and theories dealing with a broad spectrum of topics.



Classroom/Laboratory Instruction:

- Agriscience Education has a very diverse curriculum to support the AFNR industries in grades 6-12. The pathways are:
 - Plant Systems (Horticulture, Landscaping, Turf, etc.)
 - Animal Systems (Cattle, Swine, Equine, Poultry, Veterinary Science, etc.)
 - Environmental & Natural Resources Systems (Forestry, Wildlife, Environmental Science, Aquaculture, etc.)
 - Agribusiness Systems (Marketing, Communications, Business Management, etc.)
 - Power, Structural & Technical Systems (Power Equipment, Construction, Welding, Electrical Wiring, Plumbing, Masonry, Painting & Finishing, Cabinetmaking, etc.)

Agriscience Education Program Choices:

- Middle School-Agriscience (Grades 6-8)
- Agribusiness Systems
- Agriconstruction
- Agricultural Placement (Cooperative Education)
- Animal Systems
- Aquaculture
- Environmental & Natural Resources Systems
- General Agriscience
- Plant Systems
- Power Mechanics



Middle School-Agriscience:

- Designed to deliver diverse agricultural exploratory experiences to students in grades 6-8.
- Courses:
 - Introduction to Agriscience (7th Grade)
 - Agriscience Exploration (8th Grade)
 - Career Clusters Exploration through Agriculture (Grades 6-8)*

*Course explores all 16 clusters from an agricultural perspective



Agribusiness Systems:

- Designed to provide students with a general understanding of agricultural communications, management and the marketing of agricultural products in today's global business environment.
- Courses:
 - Agriscience*
 - Agribusiness Technology
 - Agribusiness Marketing
 - Agricultural Communications*
 - Agribusiness Management*

*1 credit and ½ credit courses available



Agriconstruction:

- Designed to provide students with an understanding of modern construction and building practices along with a basic understanding of metal fabrication and welding.
- Courses:
 - Agriscience*
 - Introduction to Drafting Design
 - Construction Site Preparation and Foundations
 - Construction Framing
 - Construction Finishing and Interior Systems
 - Residential Wiring
 - Introduction to Masonry
 - Safety and Health Regulations
 - Introduction to Metal Fabrication*
 - Introduction to Metal Inert Gas/Flux Cored Arc Welding



*1 credit and ½ credit courses available

Agricultural Placement:

- This program is a placeholder for agriscience teachers that serve as the cooperative education instructor for the school/school system.
- We have to track all agriscience certified instructors in CTE from a review standpoint.



Animal Systems:

- Designed to provide students with an understanding of livestock management, veterinary science, poultry science, equine science and food processing.
- Courses:
 - Agriscience*
 - Animal Science*
 - Animal Biotechnology
 - Poultry Science
 - Equine Science
 - Introduction to Veterinary Science
 - Veterinary Science

*1 credit and ½ credit courses available



Aquaculture:

- Designed to provide students with a general understanding of the aquaculture industry through fisheries technology.
- Courses:
 - Agriscience*
 - Aqua Experience*
 - Aquaculture Science
 - Aquatic Biology
 - Introduction to Fisheries Technology
 - Advanced Fisheries Technology

*1 credit and ½ credit courses available



Environmental & Natural Resources Systems:

- Designed to provide students with a general understanding of the ecology, forestry and wildlife management industries as they relate to agriculture.
- Courses:
 - Agriscience*
 - Environmental Management
 - Fish and Wildlife Management*
 - Forestry*
 - Forestry Equipment
 - Urban Forestry
 - Arboriculture
 - Dendrology
 - Wildland Firefighting and Controlled Fire



*1 credit and ½ credit courses available

General Agriscience:

- Designed to deliver a variety of agricultural disciplines which will provide students a general understanding of the scope of agriculture as it relates to the following areas: animal science, plant sciences, agricultural construction and agricultural mechanics.
- Courses:
 - Fundamental of Agriscience
 - Intermediate Agriscience
 - Advanced Agriscience
 - Applied Agricultural Mechanics



Plant Systems:

- Designed to provide students with an understanding of the greenhouse, horticulture and nursery landscape industries.
- Courses:
 - Agriscience*
 - Horticultural Science*
 - Plant Biotechnology
 - Greenhouse Production and Management
 - Nursery Production and Management
 - Sports Turfgrass Production and Management
 - Landscape Design & Management*
 - Residential Landscape Establishment & Management



*1 credit and ½ credit courses available

Power Mechanics:

- Designed to provide students with a general understanding of agricultural power equipment.
- Courses:
 - Agriscience*
 - Two- and Four-Stroke Engines*
 - Power Equipment Technology
 - Residential and Commercial Power Equipment

*1 credit and ½ credit courses available



Articulated Courses/Dual Enrollment:

- Articulated Credit Courses (CIP Code):
 - Horticultural Science (420051)
 - Greenhouse Production and Management (420054)
 - Nursery Production and Management (420055)
 - Landscape Design and Management (420057)
 - Residential Landscape Establishment and Management (420059)
 - Sports Turfgrass Production and Management (420056)
- Dual Enrollment Credit opportunities are offered through agreements solidified by local LEAs and Community Colleges.



Career Readiness Indicators:

- Career Readiness Indicators (CRIs) are credentials/certifications made available to all students enrolled in a program where career and technical skill proficiencies are aligned with industry-recognized standards.
- CRIs are available for most, but not all programs at this time.
- CRIs provide proof the student possesses the minimum skills required for entry-level employment in the chosen field of certification.
- CRIs will be recorded on the student's high school transcript and testing can occur at the discretion of the career and technical education LEA depending on student readiness, pre-assessments required.
- CRIs must be recorded in INOW.

Stackable Credential vs. CRI:

- Stackable Credentials are certifications that reflect mastery of knowledge and/or skills as they relate to a specific component of a Career and Technical Education program and may lead to a Career Readiness Indicator.
- Stackable Credentials alone do not provide evidence a student has obtained entry-level skills required for employment.
- Stackable Credentials do not count toward school accountability.



Program Review (BIC/NCCER)

- Business Industry Certification (BIC)
 - Programs are reviewed on a 5-year cycle
- National Center for Construction Education and Research (NCCER)
 - Programs are reviewed for NCCER on a 3-year cycle
 - They are also reviewed on the 5-year cycle with a modified BIC Review
 - Includes counselor interview

Program Review (BIC/NCCER)

- Each program should provide you with a brochure including course offerings and CTSO (FFA) information.
- Think about offering a career night for incoming freshman (or other grade level) to visit CTE programs and talk to the teacher and some currently enrolled students.
- Student selection for courses should be based on 4-year plans and match with their career objective, if possible.

Program Review (BIC/NCCER)

- To meet the definition of a CTE Program, the school must offer at least three courses (3-credits) in the program over a two-year period.
 - Example: Plant Systems Courses:
 - **Agriscience (14-15)**
 - **Horticultural Science (14-15)**
 - Plant Biotechnology
 - Greenhouse Production and Management
 - Nursery Production and Management
 - Sports Turfgrass Production and Management
 - **Landscape Design & Management (15-16)**
 - Residential Landscape Establishment & Management

Program Review (BIC/NCCER)

- Each CTE Program must maintain and average enrollment of at least 12 students per course each year.
- Maximum enrollment must not exceed the safe working capacity of the facility.



Supervised Agricultural Experience (SAE)



- The SAE is a required component of a total agricultural education program and intended for every student.
- Through their involvement in the SAE program, students are able to consider multiple careers and occupations, learn expected workplace behavior, develop specific skills within an industry, and are given opportunities to apply academic and occupational skills in the workplace or a simulated workplace environment.
- Through these strategies, students learn how to apply what they are learning in the classroom as they prepare to transition into the world of college and career opportunities.

Supervised Agricultural Experience (SAE)

Four Types of SAE:

- Exploratory
- Research
- Placement
- Entrepreneurship

Supervised Agricultural Experience (SAE)

Exploratory:

- Appropriate for beginning students or advanced students
- Designed primarily to help students become literate in agriculture
- Designed to help students become aware of possible career areas in agriculture

Supervised Agricultural Experience (SAE)

Research (2 Types):

1. Experimental-where a student plans and conducts a major agricultural experiment using the scientific process.
2. Non-Experimental (analytical)-where a student chooses an agricultural problem not suited to experimentation and designs a plan to investigate and analyze the problem.

Supervised Agricultural Experience (SAE)

Placement:

- Involves the placement of students on farms, agricultural businesses, school laboratories, or in community facilities to provide a “learning by doing” environment.

Supervised Agricultural Experience (SAE)

Entrepreneurship:

- Involves the student planning, implementing, operating and assuming the financial risks in a farming activity or an agricultural business.



FFA



FFA is a dynamic youth organization within agricultural education that prepares students for nearly 300 career opportunities in the agricultural science, food, fiber and natural resources industry.

Student success remains the primary mission of FFA.

FFA Mission Statement:

FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success through agricultural education.



Essentials of a Successful FFA Chapter

1. FFA Knowledge
2. Diversity of Membership
3. All Members Share Responsibilities
4. Capable Officers
5. Challenging Program of Activities



Essentials of a Successful FFA Chapter

6. Workable Constitution and Bylaws
7. Proper Equipment and Records
8. Well-planned, Regularly Held Chapter Meetings
9. Adequate Financing
10. School and Community Support



FFA Program of Activities

- Serves as a road map for chapter activities for the year
- Helps students develop their visioning, decision making and action skills
- Defines chapter goals, outlining steps needed to meet those goals
- Serves as a written guide with a calendar of events for the chapter to follow

FFA Program of Activities

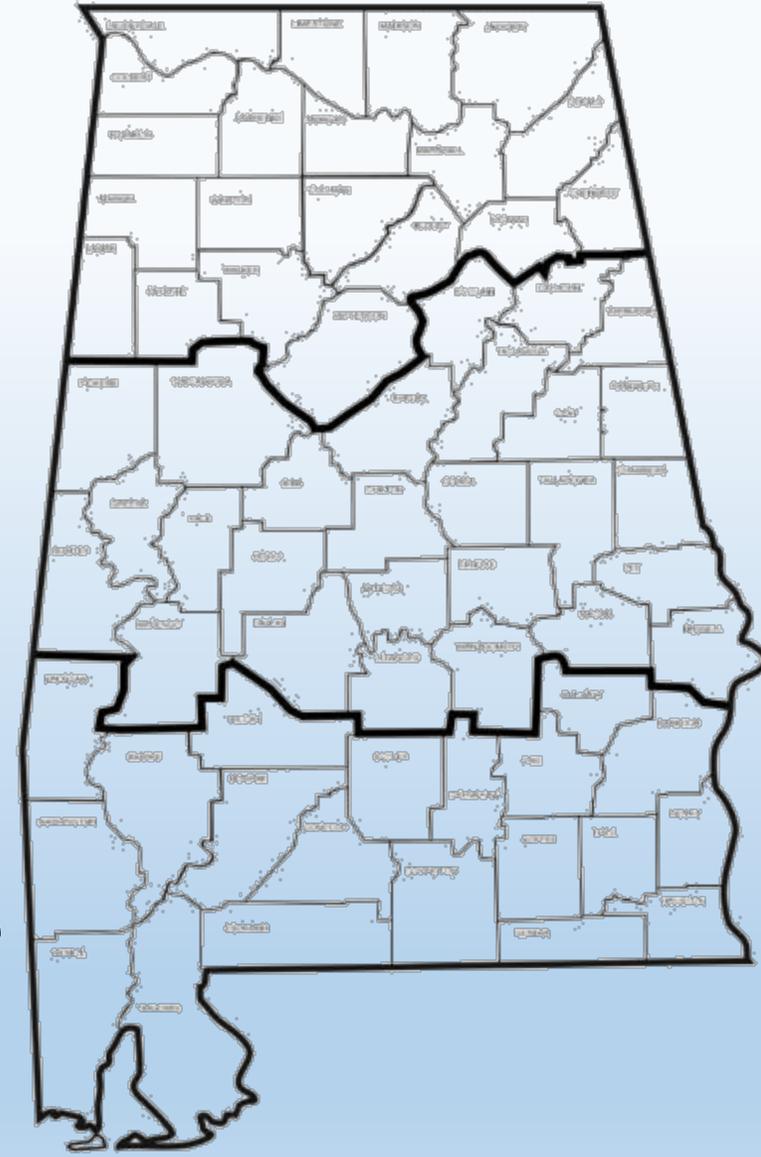
- Ensures the chapter activities meet the needs of the members
- Provides direction for the year
- Provides experience in planning
- Serves as a reference point throughout the year



Alabama FFA Structure

- North: Philip Paramore, Auburn
- Central: Andy Chamness, Montgomery
- South: Jacob Davis, Montgomery

- State FFA Advisor: Jacob Davis
- State FFA Executive Secretary: Philip Paramore



FFA Participation

2014-2015:

- Membership: 14,609
- District FFA Participation: 3,610
- State Convention Attendance: 1,752
- State FFA Degree Recipients: 197



National FFA Convention

- Largest Annual Convention in the United States (65,173 attended in 2015)
- Generates \$36 Million in economic impact for the host city/state
- 2016: Indianapolis, Indiana (October 19-22, 2016)



Contact Information

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