NORTH CAROLINA AGRICULTURAL AND TECHNICAL STATE UNIVERSITY

COLLEGE OF AGRICULTURE AND ENVIRONMENTAL SCIENCES (CAES)

The **"A"** in N.C. A&T

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August 5, 2017

Southern CARET-AHS Summer Meeting

AGGIES DO

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Who we are

- Largest HBCU- 1890 University
- Largest 1890 agricultural college
- A&T graduates the largest number of African American engineers
- Largest producer of African American CPAs
- 2nd largest producer of minority agricultural graduates
- A&T is #3 in extramural funding for UNC System
  - CAES #1 in extramural funding at A&T

Who is the CAES?

Key Positions

- 289 faculty and staff
  - 98% Ph.D.
  - 51% AA, 14% White, 35% Other
  - 57% Male, 43% Female
- $21.7 mil external funds - #1 at A&T
- Have the most buildings (8)
  - Benbow, Carver, Child Dev. Lab, Coltrane, C.H. Moore, Sockwell, Webb & University Farm sites- **largest classroom** – 492 acre University Farm

Who is the CAES?

Academics and Teaching

Over 1,100 students	Fastest Growing Programs
▪ 4 Academic departments ▪ 9 BS degree programs ▪ 5 MS degree programs ▪ New doctoral program being planned	▪ Animal Sciences ▪ Child Development ▪ Fashion Merchandising ▪ Food Sciences ▪ Agricultural Education (MS)

- **Bachelor's Degrees**
  - Animal Science
  - Laboratory Animal Sciences
  - Animal Sciences (Animal Industry)
  - Agricultural Education
  - Agricultural & Environmental Systems
  - Biological Engineering
  - Landscape Architecture
  - Child Development & Family Studies
  - Fashion Merchandising
  - Consumer Sciences
  - Food & Nutrition Sciences
  - Food Sciences
  - Human Nutrition

- **Master's Degrees**
  - M.S., Agricultural Education (professional licensure, professional service)
  - M.S., Agricultural and Environmental Systems
  - M.S., Food & Nutritional Sciences
  - M.A.T., Teaching (Family & Consumer Sciences
  - M.A.T. , Child Development Early Education & Family Studies
- **Doctoral Degree being planned**

Historical Enrollment

Enrollment			
2006	704	95	799
2007	626	111	737
2008	709	120	829
2009	792	136	928
2010	820	156	976
2011	776	161	937
2012	777	179	956
2013	761	141	902
2014	915	123	1038
2015	982	123	1105
2016	1021	120	1141

Freshman Profile

Profile	Fall 2013	Fall 2014	Fall 2015	Fall 2016
Average G.P.A.	3.45	3.46	3.41	3.53
Average SAT	960	943	931	937
Average ACT	20	21	20	20

Retention and Graduation Rates

- 1st Year Retention = 84% (Fall 2015 Cohort)
- 4 Year Graduation Rate = 24% (Fall 2010 Cohort)
- 6 Year Graduation Rate = 42% (Fall 2010 Cohort)

CAES – Faculty Accomplishments

- Dr. Shengmin Sang- lead scientist in the Center of Excellence in Post-Harvest Technologies, won the grand prize of the inaugural SoBran/NCBiotech Innovation for Impact Contest for his research on a novel double "prodrug" that decreases aspirin toxicity in the gastrointestinal tract and increases is efficacy.
- Recipient of the 2017 N.C. A&T Intellectual Property Award

Dr. Kathleen Liang, W.K. Kellogg Distinguished Professor – received best higher education practice award - Small Business Institute (SBI) [third time in four years]

- Dr. Leonard Williams - appointed to the USDA's Agricultural Technical Advisory Committee for Trade (ATOC) by the U.S. Secretary of Agriculture.
- Co-authored a new book on chromatography.

- Mycorrhiza Biotech, a Burlington company with ties to N.C. A&T via research assistance from Dr. Omon Isikhuemhen, has achieved a breakthrough harvest in truffles, the hard-to-grow, mushroom-like, underground, edible fungus associated with upscale restaurants and gourmet cooking, in only two years.

- Peanut allergen research by CAES research scientist Dr. Jianmei Yu is one of 11 featured stories highlighted in the recent release of the new report, *Retaking the Field—Strengthening the Science of Farm and Food Production*, produced by the Supporters of Agricultural Research (SoAR) Foundation.

- **Hosted five agricultural professionals from Mozambique**, southeastern Africa, visited the CAES to learn about the U.S. system of school-lunch programs. Their two-week stay in the U.S. was funded by the USDA Foreign Agricultural Service Cochran Fellowship Program.

New Building Projects On the Farm

To Strengthen what we do well... CAES is investing in Community Food and Health

Extension Focus:

- Demonstration projects
- Food and nutrition
- Extension training programs
- Community Development
- Leadership training

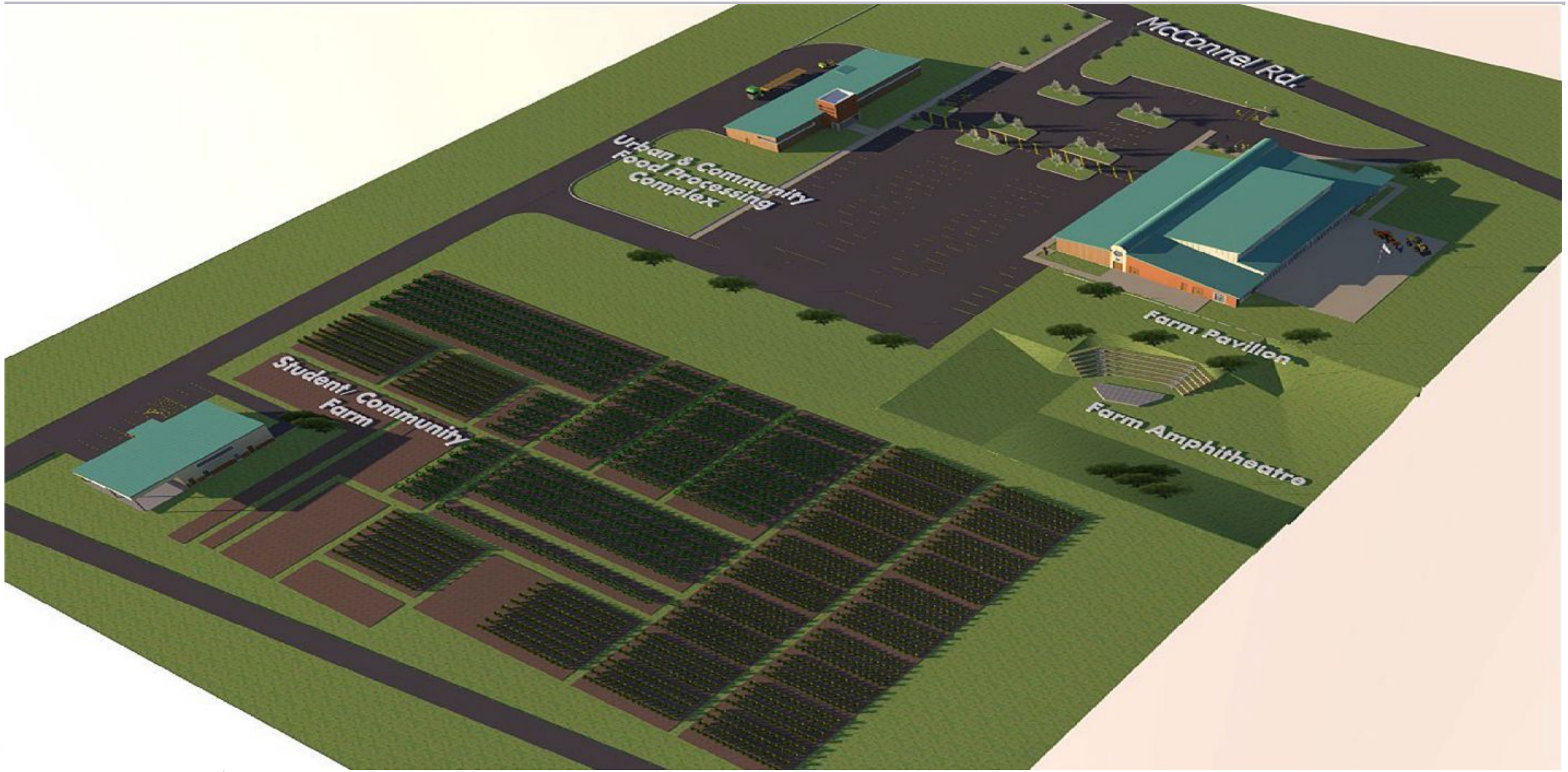
Support Academic Programs

- Sustainable Land Management
- Urban and Community Horticulture
- Food and Agribusiness Management
- Growing Animal Science/Laboratory Animal Health, Human Nutrition, Food Science, Child Development

Research Focus on NIFA Priorities to include:

- Sustainable food production including organic
- Food Safety and Security
- Value-added foods
- Human nutrition and obesity
- Bio-products/fuels

CAES Farm Complex – New Buildings



Multi-purpose Farm Pavilion

Multipurpose Farm Pavilion

Key Features

- The 17,000 sq. ft. pavilion will be located on a seven (7) acre tract of land.
- House farm superintendent and staff offices
- Four additional shared offices for teaching, research and extension faculty
- House classrooms, wet and dry labs, and a conference room
- 5,000 square feet of multi-purpose space for banquets, seminars and meetings equipped with audio visuals, internet access and large exterior overhead doors for easy entry of large equipment and animals, seating capacity of 350-400 banquet style of 500 conference style,
- Breakroom/kitchenette designed for catering and food service
- Covered rear exterior area for outdoor activities

Community and Urban Food Complex

Key Features

- Farm or kitchen incubator *(assist farmers & rural businesses in developing value-added & culinary products for sale to consumers interested in locally grown and produced products)*
- Dining area and general office spaces
- Space for testing and storing client products
- Participants will receive assistance in business management, marketing, accounting and financial , and other related business training

Key Features:

- Meeting rooms
- Classrooms
- Creamery
- Cold Storage Units
- Postharvest Physiology Lab
- Food Processing Lab
- Food Preparation Lab

Community & Urban Food Complex back view

Student and Community Farm

Provide students opportunity for experiential learning while also training residents in the development of community gardens

- Focused upon sustainable agriculture, local community food systems, production and processing, which serves as a conduit for education, research, extension and community outreach activities
- Garden will consist of: raised beds, plastic culture, rows and flat beds
  - Drip irrigation system
- Building includes (GAP certified):
  - Sinks
  - Storage for implements and tools
  - Bathrooms & showers
  - Coordinator's office

Student and Community Farm

Farm Fiber Optic

- Upgrade the farm's infrastructure to improve security and to ensure that we are in compliance with the university's network security requirements.
- Critical to the University's ability to provide security monitoring, access control, and integration into the university telephone system.
- Project entails:
  - install the fiber cable
  - install wireless access points
  - install the exterior wireless system
  - furnish the networking equipment
  - furnish and install telephone equipment
  - supply the UPS (uninterruptible power supply) for network and phone equipment

Proposed Amphitheatre

Thank You!