

The 1890 Land-Grant System: An Indispensable Investment

ESS/SAES/ARD Annual Meeting and Workshop
Nashville Hilton Downtown, Nashville, TN
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Presenter:

Orlando F. McMeans, ARD Chair



A Little History:

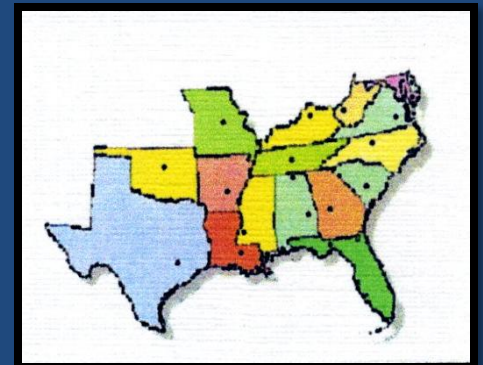
The Second Morrill Act of 1890 provided that **“no money shall be paid out under this Act to any State or Territory for the support and maintenance of a college where a distinction of race or color is made in the admission of students.”**

However the Act was revised to say that **in states that refused to admit colored students, they could establish separate colleges for white and colored students so long as the funds received would “be equitably divided.”**

So, in 1890

➤ The 1862 institutions in 17 states would not admit colored students, leading to the establishment of:

Seventeen 1890 land grant universities and, because of its strong history relating to agricultural education, Tuskegee Institute (a private black college) became the **18th** of the historically black land grant colleges.



The 1890s are located in the **Southern Region**, with these exceptions:

Northeast Region:

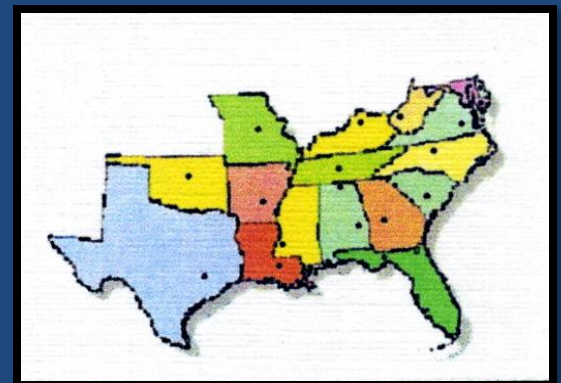
Delaware – Delaware State University

Maryland – University of Maryland Eastern Shore

West Virginia – West Virginia State University

North Central Region:

Missouri – Lincoln University



The 1890 Institutions

- Alabama – Alabama A&M University and Tuskegee University
- Arkansas – University of Arkansas at Pine Bluff
- Delaware – Delaware State University
- Florida – Florida A&M University
- Georgia – Fort Valley State University
- Kentucky – Kentucky State University
- Louisiana – Southern University
- Maryland – University of Maryland Eastern Shore
- Mississippi – Alcorn State University
- Missouri – Lincoln University
- North Carolina – North Carolina A&T State University
- Oklahoma – Langston University
- South Carolina – South Carolina State University
- Tennessee – Tennessee State University
- Texas – Prairie View A&M University
- Virginia – Virginia State University
- West Virginia – West Virginia State University

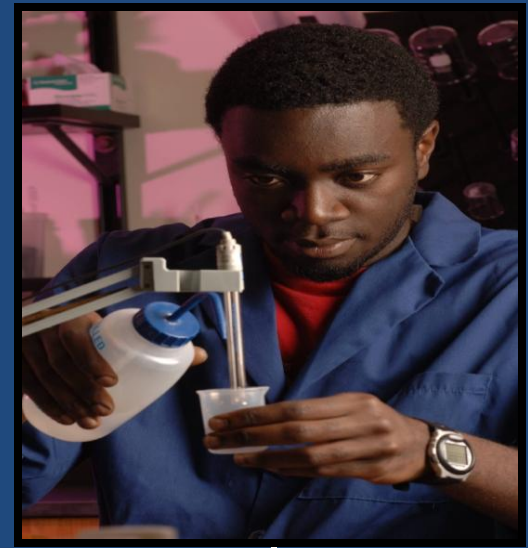


The 1890 Institutions

<u>Date</u>	<u>Institution</u>	<u>Sponsor</u>
1866	Lincoln University	Civil War Negro Infantry
1871	Alcorn State University	State Legislature
1872	South Carolina State University	State Legislature
1873	University of Arkansas Pine Bluff	State Legislature
1875	Alabama A&M University	Group of Ex-Slaves
1876	Prairie View A&M University	State Legislature
1880	Southern University	State Legislature
1881	Tuskegee University	State Legislature
1882	Virginia State University	State Legislature
1886	Kentucky State University	State Legislature
1886	University of Maryland Eastern Shore	Methodist Episcopal Church
1887	Florida A&M University	State Legislature
1891	Delaware State University	State Legislature
1891	North Carolina A&T University	State Legislature
1891	West Virginia State University	State Legislature
1895	Fort Valley State University	Citizens' Group
1897	Langston University	Territorial Legislature
1909	Tennessee State University	State Legislature

The eighteen 1890 Land Grant Universities were founded between 1866 and 1912

All eighteen proudly extend educational access and educational opportunity to a wide range of students



Statistical Portrait of the 1890s

- ✓ Total student enrollment of ~101,000, 70% of which is African American
- ✓ 7,308 of their undergraduates and graduates major in the food and agricultural sciences
- ✓ 51.6% of all degrees awarded to African Americans in Agriculture are from the 1890s (*J. of Black Issues in Higher Ed. 2008*)
- ✓ On average, 1890s graduate ~16,000 students per year



“We assume greater responsibility for economic development in the environment in which our institutions function - in terms of poverty, unemployment, youth-at-risk, illiteracy, and the absence of economic opportunities”



Unique and Diverse Programs

- ❖ One size does not fit all when describing the 1890s and all have unique strengths
- ❖ The campuses offer a variety of undergraduate, masters, doctoral and professional degrees



NIFA has reminded us all that in addressing critical issues facing the long – term viability of agriculture, we must :

establish larger, longer lasting programs to create substantial impacts

become more multi-institutional and multidisciplinary

Accordingly, as 1890s

we aim to expand and strengthen alliances and partnerships,

we seek to develop meaningful, mutually beneficial collaborations with 1862s, 1994s, and with each other

Therefore,

the rest of this presentation is sharing information about the 1890s as a first step in helping us building new partnerships, with you and among ourselves.



**University of Arkansas
at Pine Bluff
Enrollment: 3,396**



UAPB Land Grant Program Facility



University of Arkansas Pine Bluff

Research Strengths

- Establishing micropropagation of pecans for large scale multiplication
- Studying capabilities of the *Arabidopsis* genome for detoxification of heavy metals and mycotoxins
- Evaluating rice plants engineered to express isoflavone synthase (for health benefits)

Fort Valley State University (GA)
Enrollment: 3,594



Fort Valley State University Research Building

HOUSTON STALLWORTH
AGRICULTURAL RESEARCH BUILDING



Fort Valley State University

Research Strengths

- Georgia Small Ruminant Research and Extension Center (GSRREC)
- Southern Consortium for Small Ruminant Parasite Control (SCSRPC), an international research group from 20 institutions
- Identifying medicinal plants through phytochemical screening and screening plants for rapid biomass production

Lincoln University (MO)
Enrollment: 3,314



Cooperative Extension Building – Lincoln University, MO



Lincoln University

Research Strengths

- Environmental Stewardship – remediation of heavy metals in soils and air quality studies related to greenhouse gas fluxes in various ecosystems
- Aquaculture – developing genetic techniques to allow bluegill production to be commercially viable
- Small ruminant production – antihelmintic effects of herbal mixtures

Southern University and A&M College (LA)
Enrollment: 13,185



Southern University's Agriculture Research and Extension Center



Southern University

Research Strengths

- Nanotechnology application in forest health management
- Assessing plant biobased utilization in restoration of urban ecosystem
- Studying value-added, nutritionally functional crops that could have nutraceutical value
- Investigating the economic efficiency of rearing cattle and goats together

North Carolina A&T State University

Enrollment: 10,614



David Richmond Franklin McCain Ezell Blair, Jr. Joseph McNeil
(Jibreel Khazan)

FEBRUARY ONE

Agricultural Land Grant Program Facility at NC A&T



North Carolina A&T State University

Research Strengths

- Hydrothermal treatment and biological conversion of biomass for biofuels production (i.e. animal wastes and aquatic plants)
- Improving intestinal integrity to enhance food safety and health in poultry without drugs or medication
- Developing a new technology that could ensure food-grade probiotic enzymes to be used in dairy products
- Economic assessment of changes in trade arrangements, bioterrorism threats and renewable fuels requirements on the US grain and oilseed sector

University of Maryland Eastern Shore – Enrollment: 4,434



Human Ecology and Cooperative Extension Facilities ----->



<-----Food Science
Building

University of Maryland Eastern Shore

Research Strengths

- Sustainable Agriculture for managing soil and water contamination (P, N, and heavy metals) from poultry farms
- Molecular characterization and predictive modeling of *Salmonella spp.* from processed poultry; and prevalence, growth, survival and control of *Listeria* in blue crabs
- Utilization of seaweeds as functional foods
- Studying millets, sudangrass and switchgrass for conversion to biofuel



Kentucky State University
Enrollment: 2,834

KSU Land Grant Program Facility



Center for Sustainability of Farms and Families

Kentucky State University

Research Strengths

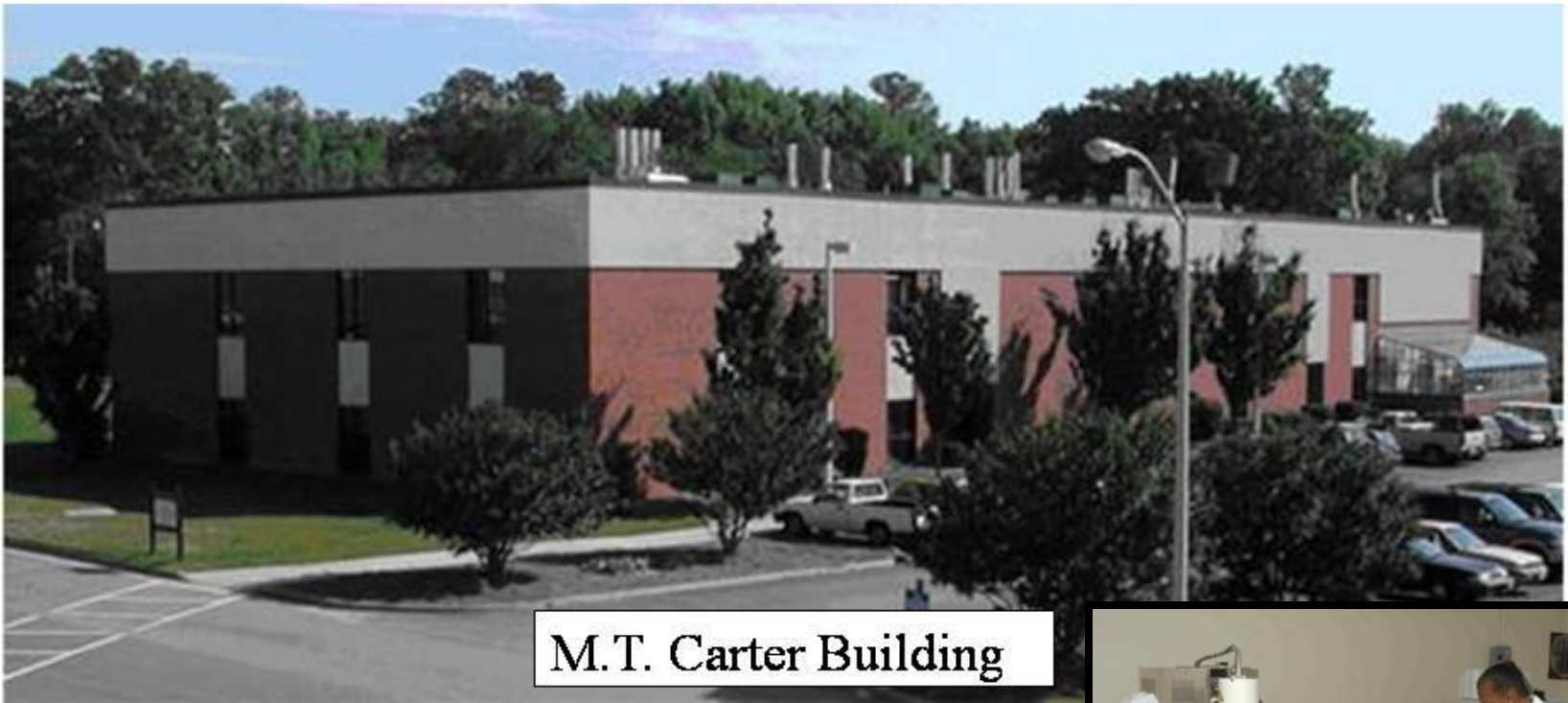
- Integration of freshwater prawn nursery and growout systems into diversified farm systems
- Development of pawpaw and primocane fruiting blackberries as niche crops in Kentucky and SE US
- Evaluation of three stocking rates, and alternative forages for meat goat production in Kentucky

Virginia State University Enrollment: 5,366



Virginia Hall

Virginia State University Land Grant Research Facility



Virginia State University

Research Strengths

- Developing biologically-based strategies for insect pest management
- Diversifying cropping systems to enhance agricultural profitability
- Preventing the transfer of food-borne pathogens to specialty foods
- Developing sustainable small ruminant production systems



West Virginia State University
Enrollment: 3,502

West Virginia State University Land Grant Program Administration Building



West Virginia State University

Research Strengths

- Utilizing anaerobic digestion for converting agricultural residues and other waste biomass into bioenergy
- Applying microbial ecology and genomics methods to understand how microorganisms mediate environmentally important processes, such as carbon cycling
- Developing DNA markers and genetic mapping techniques for quality and yield improvement in vegetables

Founded in 1871

Student Population: 3,288

Location: Southwest Mississippi



Alcorn State University (MS)
Enrollment: 3,200



State Metrology Facility



Extension & Research Complex



**Ecology & Natural Resources
Facility**



Biotechnology Facility

Alcorn State University

Research Strengths

- Environmental intervention on childhood obesity of preschoolers
- Nanostructured materials synthesis chemical sensor development
- Development of specialty sweetpotato

Delaware State University
Enrollment: 3,600



Herbarium at DSU



Delaware State University

Research Strengths

- Center for Integrated Biological and Environmental Research
- The Center is home to the DSU Plant Molecular Genetics and Genomics Research Program
- Main focus of collaboration aims to better understand the mechanisms of disease resistance in beans and so contribute to the production of disease resistant varieties (funded by NSF)

Tennessee State University
Enrollment: 8,824



Research and Extension Facility at TSU



Tennessee State University

Research Strengths

- Nursery: Otis L. Floyd Nursery Research Center is dedicated to the improvement of the Tennessee nursery crop industry (pathology, entomology, genetics, horticulture)
- Animal Science: Goat breeding to improve health, reproduction, growth, carcass traits, and anti-microbial resistance
- Production of leaner and more profitable poultry through the identification of genes that are associated with excessive fat deposition

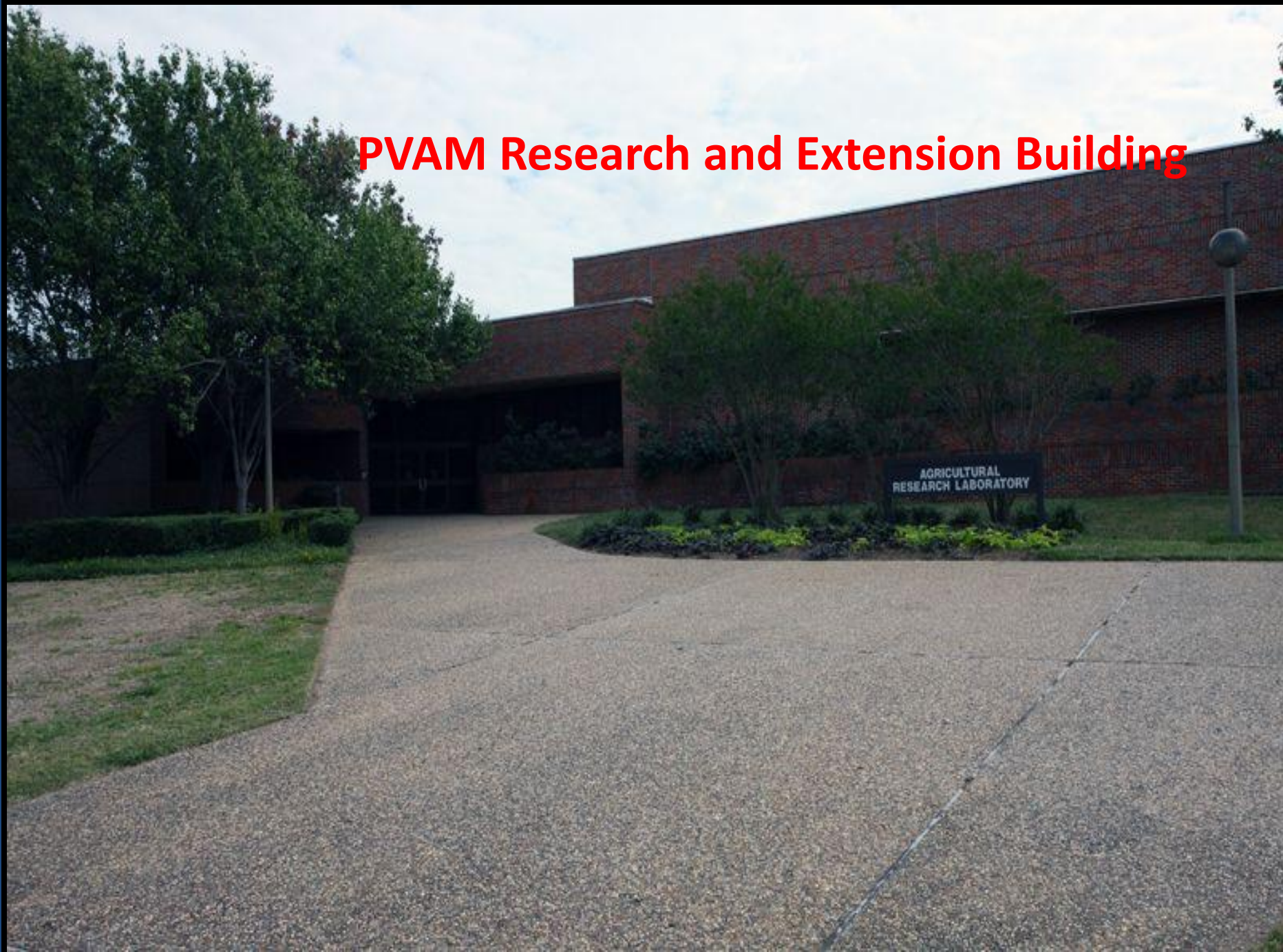
Prairie View A&M University

Enrollment: 8,187



PVAM Research and Extension Building

AGRICULTURAL
RESEARCH LABORATORY



Prairie View A&M University

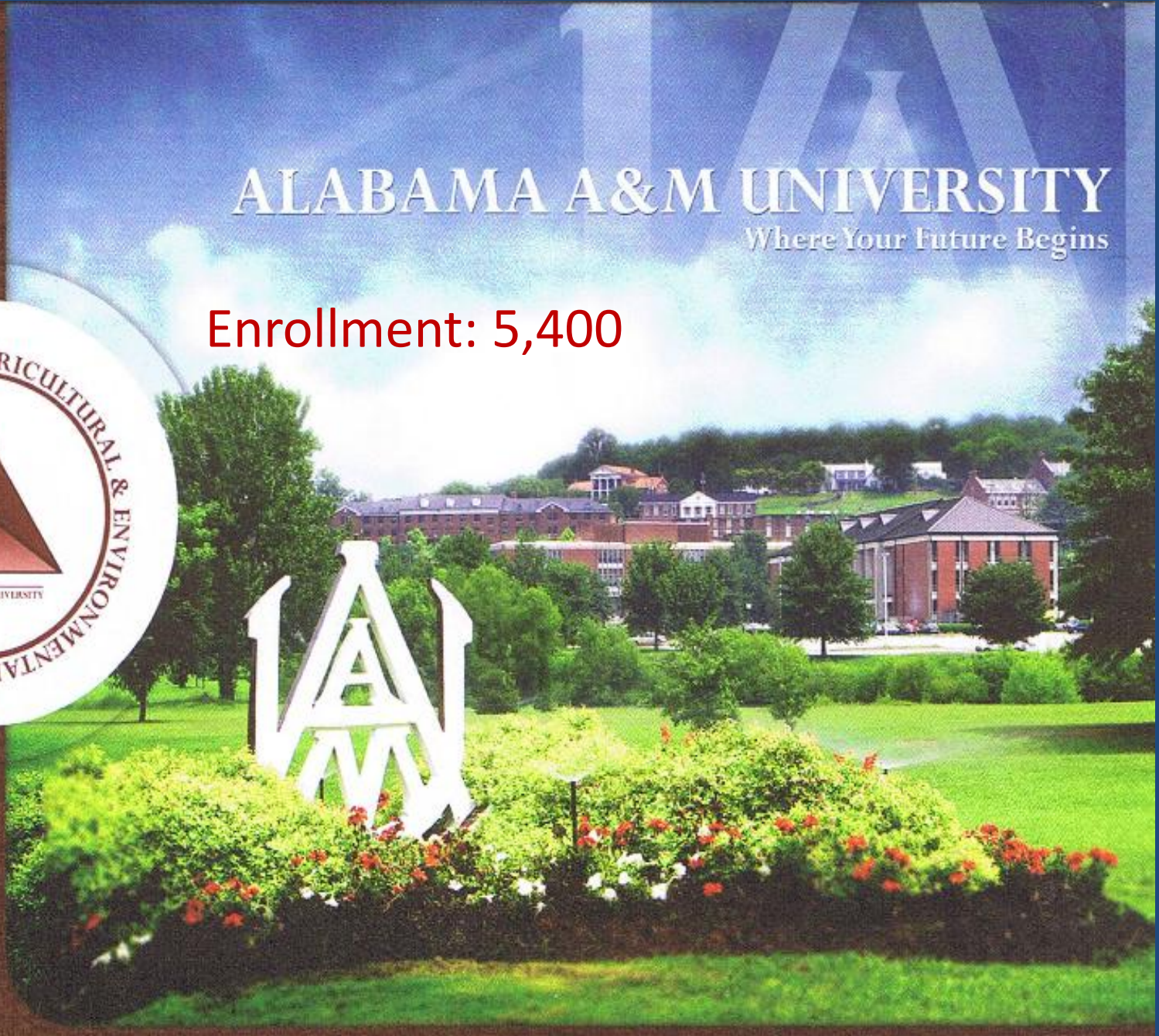
Research Strengths

- Biocontrol of animal and plant invader species in pasture and cropping systems of the Texas Gulf Coast Prairie
- Ecological systems approaches to cropping and pasture enterprises in Southeast Central Texas

ALABAMA A&M UNIVERSITY

Where Your Future Begins

Enrollment: 5,400



Alabama A&M University's Agribition Center



Alabama A&M University

Research Strengths

- Plant tissue culture and genetic transformation, genetic engineering, molecular biology and immunology program
- Biotic and abiotic controls on soil microbial enzyme production, turnover, and in-situ activities
- Evaluation of alternative feedstock for sustainable biofuel production in an agro-forestry system
- Biological weed and disease management and soil health for sustainable vegetable production

Langston University (OK)
Enrollment: 2,982



Langston University Agriculture Research Building



Langston University

Research Strengths

- Small ruminants

Langston's American Institute for Goat Research (AIGR) focuses on: Angora, meat and cashmere goats, nutrition studies on high-producing dairy goats, value-added products from goat products

- Aquaculture Program

Research and extension work on phytoplankton has provided information and techniques to fish producers to help them reduce the incidences of off-flavors in their catfish and hence increase the market value



**SOUTH CAROLINA STATE
UNIVERSITY**

**South Carolina State
University
Enrollment: ~5,000**

South Carolina State University Extension Facility

JOHN W. MATTHEWS, JR.
1890 EXTENSION CENTER
SOUTH CAROLINA STATE UNIVERSITY
80 GOFF AVENUE



South Carolina State University

Research Strengths

- Obesity Prevention Programs

SCSU is collaborating in a multidisciplinary, multistate program to investigate the causes of obesity among youth in “An Integrated Approach to Prevention of Obesity in High Risk Families.” SCSU is focusing on obesity issues among children in South Carolina, particularly from African-American families.

This investigation also aims at identifying the crucial behaviors practiced among the resilient low income families in the same obesogenic environments

Florida A&M University
Enrollment: ~13,065



Perry Paige Building – Ag Sciences, Engineering and Technology



Florida A&M University

Research Strengths

- Viticulture and small fruit research related to Florida grapes and small fruits
- Biological control research for developing ecologically based solutions to pest problems affecting agriculture, natural resources, and human health
- Bio-Energy research to uncover renewable and more sustainable forms of energy and bio-fuels; educate young bioengineers; and aid limited-resource farmers

Tuskegee University (AL)
Enrollment: 3,013



The Kellogg Conference Center



Tuskegee University

Research Strengths

- Developing marker genes for sweetpotato, peanut, cocoyam, yam and Frafra potato
- Developing edible vaccines (sweetpotato and peanut): *Cholera enterotoxin* epitope gene, rabies glycoprotein genes
- Developing nutritious, disease resistant and environmentally adaptable high yielding crop plants
- Developed crop growing systems for NASA space application

As 1890s we:

Are constantly aware of our primary responsibility to develop society-ready graduates who are uniquely trained and in demand to tackle the diverse issues impacting the global community;

and we look forward to:

Building national and international linkages to contribute our unique strengths to the development of global food security, environmental sustainability and competitiveness of U.S. food, agricultural and natural resource-based businesses.

