PLAN OF WORK

Langston University
School of Agriculture & Applied Sciences

Federal Fiscal Years
2000-2004

EXTENSION AND RESEARCH

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Goal 5 - Enhanced economic opportunity and quality of life for Americans.

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"EXECUTIVE SUMMARY"

I. Planned program

Planned Programs Matrix

	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5
1890 Research	Program 1, 2 and 7	Program 2		Programs 1, 2 and 6	
1890 Extension	Programs 1 and 2	Program 2	Program 5	Programs 1 and 2	Programs 3 and 4

Program 1: Aquaculture and Fisheries

Key Program Components:

1. Economics
2. Efficient Feeding Rates
3. Water Quality
4. Value Added Food
5. Alternative Agriculture

Program 2: Goat Research and Demonstrations

Key Program Components:

1. Supplemental Income for Small Farmers
2. Milk Safety
3. Environmental Quality
4. Herd Health
5. Value Added Food
6. Alternative Agriculture

Program 3: 4-H Youth Development and Family Management

Key Program Components:

1. Nutrition Education
2. Economics and Social Well-being of Families
3. Youth Leadership Skills
4. Alcohol and Drug Abuse Prevention

5. Teen Pregnancy Prevention

Program 4: Rural Development

Key Program Components:

1. Rural Business Development
2. Rural Infrastructure Renewal
3. Rural Water Quality Improvement
4. Revitalizing and Sustaining Rural Communities
5. Promoting Computer Technology in Rural Communities

Program 5: Families First: Nutrition Education and Wellness System

Key Program Components:

1. Promote Good Nutrition
2. Nutrition Education
3. Food Quality
4. Food Safety
5. Food Management
6. Age-Related Nutritional Needs

Program 6: Agronomy/Crop Production

Key Program Components:

1. Dryland field crop production
2. Nitrogen use under dryland conditions
3. Nitrate uptake under dryland conditions
4. Nitrate movement in the soil
5. Subsoil nitrate levels

Program 7: Biotechnology

Key Program Components:

1. Improve propagation techniques for forages
2. Improve propagation techniques for row crops
3. Improve forage stress tolerance
4. Improve forage quality
5. Establish biotechnology training center

Program Descriptions

The following is the Langston University Research and Cooperative Extension Program five-year Plan of Work based upon the five national goals embraced by the United States Department of Agriculture.

Goal 1 - An agricultural system that is highly competitive in the global economy.

Program 1. Aquaculture and Fisheries

Statement of Issues:

There are approximately twenty-four species of fish, amphibians, and crustaceans commercially cultured in Oklahoma. Many landowners also culture fish noncommercially for personal consumption or sport fishing. Over 80% of reported income is from channel catfish. In order to increase their income, and to be competitive nationally and globally, fish farmers need more sales from other currently cultured species, or from alternative species. Culture practices to increase production efficiency are also necessary. New marketing strategies, including value added or alternative sales venues, should be evaluated. Alternative species must be evaluated for culture suitability and economic viability. Producers need information to ensure that their operations are in compliance with state and Federal environmental regulations.

Performance Goals:

1. Increased production and sales of Oklahoma aquaculture products.
2. Evaluate additional culture species.
3. Increase farmer technical and management skills.
4. Ensure aquaculture operations are in compliance with environmental regulations.

Output Indicators:

– Scientific reports, Extension publications, workshops for producers, technical publications and information for potential producers and schools, cooperation with state and Federal agencies.

Outcome Indicators:

– Increased income and number of producers
– Adoption of recommended procedures by producers.
– Increased compliance with environmental regulations.
– Increased production efficiency.
– Increased participation by producers in workshops, Field Days, and other educational activities

Key Program Components:

- Conduct on-site evaluations and make evaluations to improve culture practices.
- Evaluate culture and market potential of alternative aquaculture species.
- Water quality management to increase culture pond productivity.
- Polyculture to increase efficiency of nutrient cycling and culture pond productivity.

Internal and External Linkages:

- Langston University Research and Extension, School of Agriculture and Applied Sciences
- Oklahoma State University
- Kentucky State University
- Oklahoma Cooperative Fish and Wildlife Research Unit
- Oklahoma Department of Wildlife Conservation
- Oklahoma Department of Agriculture
- Oklahoma Department of Environmental Quality
- Oklahoma Water Resources Board
- Oklahoma Aquaculture Association
- US Fish and Wildlife Service
- USDA, Natural Resource Conservation Service
- US Department of the Interior, Bureau of Land Management
- USDA, Southern Regional Aquaculture Center

Target Audiences:

Commercial and private aquaculturists in Oklahoma and adjacent states.

Program Duration:

Greater than five years.

Program 2. Goat Research and Demonstrations

Statement of Issue:

Interest in goat production is increasing among Oklahoma farmers and farmers in other states. The one and a half million dairy goats in the U.S. are concentrated in California, Texas and New York. Lesser but appreciable numbers are in Oklahoma, Minnesota, Missouri, Oregon, Ohio, Virginia, Indiana, Illinois, Pennsylvania, Washington and Maryland. Industry growth has been erratic over time and across areas, but aggregate growth has tended upward. Cashmere

production is a relatively new enterprise in the U.S. It is estimated that 3.94 million commercial cashmere goats would be needed to satisfy the domestic demand for cashmere. Repeal of the Wool and Mohair Incentive Act greatly reduced the profitability of mohair production and has forced many Angora goat producers to look to other goat enterprises. Many Angora goat producers have started to change to meat goats. There is substantial demand for goat meat. In a survey, approximately 53 million people were identified as potential goat meat consumers. The survey further revealed that if annual per capita goat meat consumption is 1 kg, there would be a potential demand of approximately 9.2 million goats (potentially a $450 million industr y) to meet the domestic chevon market alone. Chevon is currently exported to Mexico, Latin American, and the Caribbean, with great potential for growth in these markets.

Performance Goals:

- Define nutritional requirements for various breed/gender of goats.
- Increased efficiency of dairy, fiber and meat production in goats.
- Increased understanding of effective management practices on the part of goat producers.

Output Indicators:

- Better understanding of dairy, fiber and meat production in goats.

Outcome Indicators:

- Improved management practices for dairy, fiber and meat production in goats.
- Increased use of performance-tested bucks in the meat goat industry.
- Better management of dairy goats through the incorporation of DHI record keeping

Key Program Components:

- Langston Meat Buck Performance Test
- Langston Goat Dairy Herd Improvement (DHI) Laboratory
- Annual Goat Field Day and other workshops
- Internet website

Internal and External Linkages:

- Langston University Agricultural Research and Cooperative Extension Programs
- Oklahoma State University, Kentucky State University
- Alemaya University and Awassa University in Ethiopia

- Dairy Herd Improvement Association
- American Dairy Goat Association, American Boer Goat Association
- Oklahoma Meat Goat Association, Green County Dairy Goat Association, Red Plains Dairy Goat Association
- Goat producers in Oklahoma and neighboring states

Target Audiences:

Goat producers, including minority farmers and the underserved populations of Oklahoma.

Program Duration:

Five Years

Program 7: Biotechnology

Statement of Issue:

Biotechnology is increasingly used as a promising tool for the improvement of crop propagation. It can help shorten the period of time normally required for crop improvement when using classical breeding techniques. An efficient introduction of exogenous genes controlling economical traits into targeted crops is routinely achieved via genetic engineering techniques. Thus, an improvement of crops of economical and nutritional values for Oklahoma indigenous people of poor communities using biotechnology is achievable. It can help improve their revenues and life quality as well as tolerance to stress and nutritional quality of forage commonly used to feed goats.

Performance Goals:

- Evaluate the *in vitro* regenerability potential of targeted forage and crops of economical and nutritional values for Oklahoma indigenous people.

- Establish an efficient and reproducible protocol for *in vitro* mass production and nutritional improvement of forage and crops of economical value for Oklahoma indigenous people.

- Establish an educational center for training of students in biotechnology at Langston University.

Output Indicators:

- Scientific publications

- Enrollment and updated knowledge for students in biotechnology at Langston University
- Cooperation with state and Federal agencies and universities
- Biotechnological cooperation with Oklahoma indigenous people
- Workshops in biotechnology

Outcome Indicators:

- Increased biomass production of goat forage
- Identification and use of forage species tolerant to stress (drought, salts, etc.).
- Use of efficient and reproducible protocols for *in vitro* propagation of forage and indigenous people staple crops.
- Increased production efficiency for indigenous people staple crops.
- Available facilities for training of students in biotechnology at Langston University.

Key Program Components:

- Develop an efficient *in vitro* propagation technique for goat forage and crops of economical and nutritional values for Oklahoma indigenous people.
- Evaluate and improve targeted crops for stress tolerance.
- Improve nutritional quality of goat forage and crops of economical value for indigenous people.
- Establish a training and educational center for students at Langston University and the surrounding areas.
- Increase gene pool via *in vitro* transformation of targeted crops.

Internal and External Linkages:

- Langston University Agricultural Research and Extension Programs

- Langston University School of Arts and Sciences
- Oklahoma State University
- Oklahoma Department of Agriculture
- Tuskegee University
- Alabama A&M University
- USDA
- USDA, Agricultural Research Service

Target Audiences:

- High school, college, and university students in Oklahoma and adjacent states
- Oklahoma indigenous farmers

Program Duration:

Five Years

Goal 2 - A safe and secure food and fiber system.

Program 2. Goat Research and Demonstrations

Statement of Issue:

The 1.5 million dairy goats in the USA generate about half a billion-dollar income from goat milk production alone. Thus, producing safe, high quality milk for consumers is a top priority for the dairy goat enterprise. Violations of the antibiotic residue regulations will damage the image of the growing dairy goat industry and will produce catastrophic economic damage. Therefore, use of medicaments in dairy goats must be strictly monitored by goat producers and milk processors. A field study at Langston University was conducted to validate test kits for detection of antibiotic residues in goat milk. The field study is conducted in collaboration and following guidelines of the Center of Veterinary Medicine (FDA). Validation of test kits for detection of antibiotic residues in goat milk was identified by FDA and dairy goat producers as a priority to assure a safe goat milk supply. New goat milk standards and safe dairy goat products can make goat dairies profitable enterprises.

Performance Goals:

- Safe and secure goat milk supply.
- Increased understanding of the hazards of handling and processing milk on the part of goat producers.
- Develop value added goat products.

Output Indicators:

- Better understanding of meat and milk handling procedures.

Outcome Indicators:

- Improved knowledge of drug residues in goat milk.
- Better operating procedures for the handling and processing of goat milk.

Key Program Components:

- Langston Dairy Goat Creamery

Internal and External Linkages:

- Langston University Agricultural Research and Cooperative Extension Programs
- Oklahoma State University,
- American Dairy Goat Products Association,
- Dairy goat producers in Oklahoma and neighboring states

Target Audiences:

Dairy goat producers

Program Duration:

Five years

Goal 3 - A healthy, well-nourished population.

Program 5. Families First: Nutrition Education and Wellness Systems

Statement of Issue:

Food stamp recipients purchase food items based upon family preferences, cultural practices and other factors often unrelated to health status and United States Department of Agriculture dietary guidelines. The Families First: Nutrition Education and Wellness System Program is geared toward food stamp recipients. The program allows food stamp recipients to gain more knowledge about healthy diets, food safety and managing their financial resources.

Performance Goal:

- Enroll food stamp recipients in a nutrition course
- Encourage food stamp recipients to complete the nutrition course
- Improve awareness of healthy nutrition

Output Indicators:

- Enhanced understanding of nutrition
- Enhanced spending to promote healthy diets

Outcome Indicators:

- More efficient spending of food stamps
- More nutritious buying choices
- Healthier children and adults

Key Program Components:

- Promote good nutrition
- Provide nutritional education
- Improve dietary food quality
- Promote food safety
- Improve food management
- Teach age-related nutritional needs

Internal and External Linkages:

- Langston University Extension Specialists, Rural Development Personnel and Sociology Personnel.
- Consortium participation including 1890 Universities in Texas (Prairie View A & M University), Arkansas (University of Arkansas at Pine Bluff), Louisiana (Southern University and A&M College), South Carolina (South Carolina State University) and Missouri (Lincoln University).
- Oklahoma Department of Human Services.

Target Audiences:

Food stamp recipients in the Oklahoma Counties of Kingfisher, Logan, Pottawatomie, Pontotoc, Creek, Okmulgee, Okfuskee, Muskogee, Seminole and Oklahoma.

Program Duration:

Five years.

Goal 4 - Greater harmony between agriculture and the environment.

Program 1. Aquaculture and Fisheries (Sustainable Aquaculture)

Statement of Issue:

Technological innovations have allowed great increases in aquaculture productivity. However, the technological advances which allowed increased production were accompanied by decreased production efficiency. Pond size, water and utility consumption, fish diseases and off-flavor, and nutrient loading in culture ponds and effluents increased, while water quality in culture ponds and effluents, feed conversion efficiency, and fish survival were reduced. Profit margins decreased and environmental regulations increased. Adoption of sustainable culture practices will reduce the environmental impacts of aquaculture while maintaining economic viability and farm stability.

Performance Goals:

– Conduct research and extension programs which allow Oklahoma aquaculturists to maintain environmental quality, economic viability, and farm stability.

Output Indicators:

– Greater producer understanding of principles of sustainability, and of sustainable aquaculture in particular.

Outcome Indicators:

– Increased number of producers adopting sustainable aquaculture practices.
– Improved riparian management on aquaculture facilities.
– Increased production efficiency.

Key Program Components:

– Monitor impacts of aquaculture practices on pond and effluent water quality.
– Develop and demonstrate alternative aquaculture systems that reduce water consumption, increase water reuse, and decrease nutrient release in effluents.
– Develop riparian management strategies for Oklahoma aquaculture producers.
– Provide sustainable aquaculture information and training to public school teachers and students.

Internal and External Linkages:

- Langston University Research and Extension, School of Agriculture and Applied Sciences
- Oklahoma State University
- Kentucky State University
- Oklahoma Cooperative Fish and Wildlife Research Unit
- Oklahoma Department of Wildlife Conservation
- Oklahoma Department of Agriculture
- Oklahoma Department of Environmental Quality
- Oklahoma Water Resources Board
- Oklahoma Aquaculture Association
- US Fish and Wildlife Service
- USDA, Natural Resource Conservation Service
- US Department of the Interior, Bureau of Land Management
- USDA, Southern Regional Aquaculture Center

Target Audiences:

Commercial and private aquaculturists in Oklahoma and adjacent states.

Program Duration:

Greater than five years.

Program 2. Goat Research and Demonstrations

Statement of Issue:

Meat goats have traditionally been used in extensive grazing systems not only to produce saleable animals but also to manage unwanted vegetation. Serious suppression or near elimination of brushy species, weeds and other undesirable plants by goats will reduce competition for scarce soil nutrients and mixture. Over time, the task is to improve carrying capacity of pastures and a achieve balanced grazing. When managed properly fiber and meat goats can serve an important role in biological control of brush, shrubs, and weeds. Ultimately, goats thus contribute to more efficient utilization of pastures, forests, and rangelands while preserving the ecosystem.

Performance Goals:

- Improved forage and pasture ecosystems.
- Minimize dependency on herbicides.

Output Indicators:

- Develop year round grazing systems.
- Develop a grazing/browsing system to eliminate undesirable plant species

Outcome Indicators:

- Improved knowledge of the dietary/grazing preference of goats.
- Economical pasture management systems.

Key Program Components:

- University Research Facility.
- Site demonstrations in Oklahoma and Kansas.

Internal and External Linkages:

- Langston University Agricultural Research and Cooperative Extension Programs
- Kansas State University, Oklahoma State University, and Kentucky State University
- Goat producers in Oklahoma and neighboring states

Target Audiences:

Goat producers

Program Duration:

Five years

Program 6: Agronomy/Crop Production

Statement of Issue:

Conventional cropping systems in the United States are chemically intensive with large quantities of pesticides and fertilizers applied to the soil yearly. Nitrate contamination of groundwater is of growing public interest. Many drinking water reservoirs across the United States contain unacceptably high levels of nitrates.

In response to nitrate problems from unused nitrogen fertilizers in the soil, many crop producers have resorted to planting legumes to supply at least part of their nitrogen needs. Work is being

done at Langston University to compare residual nitrate movement in the soil between legume supplied nitrogen and a commercial nitrogen fertilizer.

Performance Goals:

Conduct research projects that will determine benefits of legume supplied nitrogen in wheat production and lessening soil nitrate movement.

Output Indicators:

– Scientific publications

– Data presented at a major agronomy or crop production symposium

Outcome Indicators:

– Contributions to the database of nitrate soil movement under dryland conditions.
– Increased understanding of residual legume - supplied nitrate movement in the soil.

Key Program Components:

– Double cropping winter wheat and legume under dryland conditions
– Nitrogen sources in dryland double cropping systems
– Effects of nitrate source on residual soil nitrate levels.

Internal and External Linkages:

– Langston University Research and Extension Components, School of Agriculture and Applied Sciences
– USDA, Natural Resource Conservation Service
– USDA, Agricultural Research Service
– Oklahoma State University

Target Audiences:

– Wheat and other row crop producers

Program Duration:

Greater than five years

Goal 5 - Enhanced economic opportunity and quality of life for Americans.

Program 3. 4-H Youth Development and Family Resource Management

Statement of Issue:

Socially economically challenged youth and families in the state of Oklahoma are experiencing risk factors which threaten their quality of life and the overall health of the nation's economy. According to the 1997 population estimates of the United States Bureau of the Census, Oklahoma has a total population of 3,217,091 people. This number includes 18.2% in poverty compared to the national poverty level of 13.3%. Many of the poverty-stricken families are underserved customers living in both rural and urban areas.

Surveys from stakeholders have indicated the need for educational information and opportunities to learn ways to improve their quality of life. Therefore, the Langston University 4-H Youth and Family Resource Management Program is committed to helping youth, adults, families and other clientele to reach their fullest potentials by providing opportunities for Oklahoma clientele to increase their knowledge and abilities to produce positive results. In order to comply with the indicated needs, the program focus will include self-esteem enhancement, leadership development, career education, teen pregnancy prevention, prenatal and post natal care, substance abuse prevention, reading enhancement, math enhancement, aquatic and goat school enrichment, food and nutrition, personal development, management, housing and health.

Performance Goals:

- To improve the quality of life for individuals and families
- Improved decision-making skills.

Output Indicators:

- Increased 4-H clubs and participation.
- Improved quality of life for clientele.
- Increased opportunities for clientele to become productive citizens.

Outcome Indicators:

- Improved methods and strategies for delivering services to under-represented and underserved youth and families
- Youth and adults knowledge and skills gained and improved in the following areas: food

and nutrition, health, self-esteem, career education, management, personal development, housing, pregnancy care and prevention, reading, math, substance prevention, goat and fish education.

- Decreased teen pregnancy and low birth rates.
- Decreased substance abuse.
- Increase in community support systems.

Key Program Components:

- Youth, families, and clientele.
- Information delivery to underserved populations
- Education programs delivered.

Internal and External Linkages:

- Partnerships will be continued with Cooperative Extension (1890 and 1862), other federal agencies, other universities, public organizations and public and private sectors.
- Collaboration and partnerships will continue to be formed.

Target Audiences:

The focus will be on the socially - economically challenged youth, families, and clientel e in the state of Oklahoma.

Program Duration:

Greater than five years.

Program 4: Rural Development

Rural communities often lag behind urban communities in vital areas that impact socioeconomical development and maintenance. Per capital income is usually lower in rural compared to urban areas. Unemployment rates are higher in rural compared to urban communities. There is usually less access to information and technology in rural compared to urban areas. These are contributing factors to the on-gong trend of young people migrating from rural to urban sites. With the continuous drain of young, educated minds from rural Oklahoma communities, opportunities for revitalizing and/or mai ntaining the economic viability of these rural communities is dwindling.

Oklahoma is atypical to many states in regard to its high number of African American settlements. Dating back the 1800's, numerous African American settlements were started in Oklahoma and some developed into townships. However, these towns generally lagged behind

other small Oklahoma rural towns in economic development. At the dawn of a new millennium, many of these towns still stand in dire need of economic development.

Langston University Rural Development Program is presently working closely with rural communities in Oklahoma to improve their socioeconomic status. The program is geared towards evaluating the existing potentials of a rural community and then building on those potentials to help revitalize that community. Special emphasis is placed on helping traditionally under-represented townships.

Performance Goals:

- Identify areas of economical potential in designated rural communities.
- Develop plans for taping into these economical potentials.
- Develop proposals or other instruments for funding rural community action plans.

Output Indicators

- Rural community contacts
- Rural community action plan sessions
- Rural community action plans developed
- Rural community action plans funded

Outcome Indicators:

- Sessions with rural community leaders and other stakeholders to identify economic potentials
- Rural community action plans developed.
- Proposals, business plans or other funding instruments drafted and submitted for funding.

Key Program Components:

- Rural business development
- Rural infrastructure renewal
- Rural water quality improvement
- Promoting computer technology

Internal and External Linkages

- Langston University School of Agriculture and Applied Sciences
- Area Churches
- Native American Nations (i.e., Iowa Nation, Cherokee Nation)

- USDA Natural Resources and Conservation Service
- USDA Rural Development
- Rural Economic Action Plan
- Oklahoma Water Resource Board
- Oklahoma Department of Commerce

Target Audiences:

- Rural communities in Oklahoma and particularly those with high percentages of African Americans and/or Native Americans.

Program Duration:

Five years

II. Allocation of Resources

	2000	2001	2002	2003	2004
Research	$1,339,313	$1,339,313	$1,339,313	$1,339,313	$1,339,313
Extension	$1,196,996	$1,196,996	$1,196,996	$1,196,996	$1,196,996

III. Stakeholder Input Process

Projects and priorities of Langston University Research and Cooperative Extension Programs are strongly impacted by stakeholder input. Input from our stakeholders is an ongoing process. The process has included the following methods:

- Input from advisory boards
- Input during and following University Field Days
- Stakeholder Surveys

Stakeholder surveys were tailored for Langston University Research and Extension clientele. Two hundred twenty-five (225) surveys were mailed to stakeholders for their input prior to developing the new five-year plan of work. Stakeholders who were sent surveys included but were not limited to traditionally underserved stakeholders. Groups surveyed included the following:

4-H Youth Development and Family Resource Management Advisory Board; Oklahoma Goat Producers; Oklahoma Fish Farmers; African American and Native

American Farmers; and the Oklahoma Land Owners and Tenant Association.

IV. Merit Review Process

Existing, as well as future Langston University Research and Extension Programs will be reviewed for merit by advisory teams consisting of stakeholders, in-house University Research and Extension personnel and external University and/or USDA personnel. The Merit Review process for 1890 Evans-Allen research proposals is consistent with the guidelines published in the administrative manual for Evans-Allen cooperative agricultural research program administrations(Section c; Subsection 2b: project approval procedure merit review - p 5). The Research Director and program leaders ensure that projects are merit reviewed and adhere to criteria approved by Langston University before being submitted for external review. The Research Director appoints a chair of the review committee for a period of one year to facilitate the review process.

V. Multistate Research Extension Activities

Hatch Multistate Research

Smith-Lever Multistate Extension

VI. Integrated Research and Extension Activities

The Extension and Research Programs at Langston University are totally integrated. Both the Research Director and the Extension Administrator report to the Dean of the School of Agriculture and Applied Sciences. Some of the research and extension personnel have dual extension and research appointments, and the staff is encouraged to work together to meet needs of the clientele. For instance, on goat demonstration projects, both extension and research personnel actively participate and personnel with dual appointments work cooperatively in order to maximize the knowledge base being applied in the particular activity, which is very important with limited staff size. Many extension projects are designed to both demonstrate effective application of known technologies and to address unknown research questions, so as to provide maximum benefit to clientele today and in the future. Lastly, research personnel, in addition to personnel with straight extension or split extension/research appointments, continually provide information to clientele who call, write, or visit the campus for information. This integration of research and extension ensures that research conducted is of utmost applicability to clientele and that research findings are rapidly and effectively transferred.

LANGSTON UNIVERSITY
PROJECTED YEARLY DISTRIBUTION OF RESEARCH AND EXTENSION PROGRAM FTEs BASED UPON THE FIVE (5) NATIONAL PROGRAM GOALS (FY 2000 - 2004)

	Goal 1 (FTEs)	Goal 2 (FTEs)	Goal 3 (FTEs)	Goal 4 (FTEs)	Goal 5 (FTEs)
Research	Program 1 ---- 0.70 Program 2 ---- 2.58 Program 7 ---- 1.00	Program 2 ---- 2.58		Program 1 ---- 0.70 Program 2 ---- 2.58 Program 6 ---- 0.70	
Subtotal (FTEs)	4.28	2.58	0	3.98	0
Extension	Program 1 ---- 2.30 Program 2 ---- 1.00	Program 2 ---- 1.00	Program 5 ---- 8.00	Program 1 ---- 2.30 Program 2 ---- 1.00	Program 3 ----7.50 Program 4---- 2.00
Subtotal (FTEs)	3.30	1.00	8.00	3.30	9.50
Total (FTEs)	7.58	3.58	8.00	7.28	9.50

- **Research Administration FTEs ---- 6.21**
- **Extension Administration FTEs ----3.04**

Legend

Program 1 ---- Aquaculture and Fisheries
Program 2 ---- Goat Testing and Demonstrations
Program 3 ---- 4-H Youth Development and Family Management
*** * Program 4 ---- Rural Development**
*** * Program 5 ---- Families First Nutrition Education and Wellness System**
Program 6 ---- Agronomy/Crop Production
Program 7 ---- Biotechnology

*** * Denotes program funded from a source other than Research and/or Extension formula funds.**

LANGSTON UNIVERSITY
PROJECTED YEARLY DISTRIBUTION OF RESEARCH FORMULA FUNDS YEARLY (FY 2000 - 2004)

BASED UPON THE FIVE (5) NATIONAL PROGRAM GOALS

Fiscal Years	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Subtotals by Year
2000 (Year 1)	P1---- $ 46,030 P2---- $160,740 P7----$ 30,000	P2-----$160,740		P1---- $ 46,030 P2---- $160,740 P6----$ 65,044		P1---- $ 92,059 P2---- $482,221 P6 ----$ 65,044 P7----$ 30,000 AC—$669,988
2001 (Year 2)	P1---- $ 46,030 P2---- $160,740 P7----$ 30,000	P2-----$160,740		P1---- $ 46,030 P2---- $160,740 P6----$ 65,044		P1---- $ 92,059 P2---- $482,221 P6 ----$ 65,044 P7----$ 30,000 AC—$669,988
2002 (Year 3)	P1---- $ 46,030 P2---- $160,740 P7----$ 30,000	P2-----$160,740		P1---- $ 46,030 P2---- $160,740 P6----$ 65,044		P1---- $ 92,059 P2---- $482,221 P6 ----$ 65,044 P7----$ 30,000 AC—$669,988
2003 (Year 4)	P1---- $ 46,030 P2---- $160,740 P7----$ 30,000	P2-----$160,740		P1---- $ 46,030 P2---- $160,740 P6----$ 65,044		P1---- $ 92,059 P2---- $482,221 P6 ----$ 65,044 P7----$ 30,000 AC—$669,988
2004 (Year 5)	P1---- $ 46,030 P2---- $160,740 P7----$ 30,000	P2-----$160,740		P1---- $ 46,030 P2---- $160,740 P6----$ 65,044		P1---- $ 92,059 P2---- $482,221 P6 ----$ 65,044 P7----$ 30,000 AC—$669,988

SUBTOTALS OVER FIVE YEARS	**P1 ----$230,150** **P2 ----$803,700** **P7 ----$150,000**	**P2 ----$803,700**		**P1 ----$230,150** **P2 ----$803,700** **P6 ----$325,220**		**Grand Five year Program Totals** **P1----$ 460,295** **P2----$2,411,105** **P6----$ 325,220** **P7----$ 150,00** **AC----$3,499,940**

Legend

Program 1 (P1)---- Aquaculture and Fisheries
Program 2 (P2)---- Goat Testing and Demonstrations
Program 3 (P3)---- 4-H Youth Development and Family Management
Program 6 (P6)---- Agronomy/Crop Production
Program 7 (P7)---- Biotechnology
AC----- Administrative Costs

LANGSTON UNIVERSITY
PROJECTED YEARLY DISTRIBUTION OF EXTENSION FORMULA FUNDS YEARLY (FY 2000 - 2004)
BASED UPON THE FIVE (5) NATIONAL PROGRAM GOALS

Fiscal Years	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Subtotals by Year
2000 (Year 1)	P1----$122,582 P2----$ 81,721	P2----$ 81,721	**P5----$293,309	P1----$122,582 P2----$ 81,721	P3----$378,781 **P4----$100,000	P1----$245,164 P2----$245,164 P3---$378,781 **P4---$100,000 **P5----$293,309 AC---$327,886
2001 (Year 2)	P1----$122,582 P2----$ 81,721	P2----$ 81,721	**P5----$293,309	P1----$122,582 P2----$ 81,721	P3----$378,781 **P4----$100,000	P1----$245,164 P2----$245,164 P3---$378,781 **P4---$100,000 **P5----$293,309 AC---$327,886
2002 (Year 3)	P1----$122,582 P2----$ 81,721	P2----$ 81,721	**P5----$293,309	P1----$122,582 P2----$ 81,721	P3----$378,781 **P4----$100,000	P1----$245,164 P2----$245,164 P3---$378,781 **P4---$100,000 **P5----$293,309 AC---$327,886
2003 (Year 4)	P1----$122,582 P2----$ 81,721	P2----$ 81,721	**P5----$293,309	P1----$122,582 P2----$ 81,721	P3----$378,781 **P4----$100,000	P1----$245,164 P2----$245,164 P3---$378,781 **P4---$100,000 **P5----$293,309 AC---$327,886
2004 (Year 5)	P1----$122,582 P2----$ 81,721	P2----$ 81,721	**P5----$293,309	P1----$122,582 P2----$ 81,721	P3----$378,781 **P4----$100,000	P1----$245,164 P2----$245,164 P3---$378,781 **P4---$100,000 **P5----$293,309 AC---$327,886

SUBTOTALS	**P1----$612,910** **P2----$408,605**	**P2----$408,605**	****P5----$293,309**	**P1----$612,910** **P2----$408,605**	**P3----$1,893,905** ****P4----$ 500,000**	**P1----$1,224,820** **P2----$1,225,820** **P3—$1,893,905** ****P4—$ 500,000** ****P5----$1,466,545** **AC---$1,639,430**

Legend

Program 1 (P1)---- Aquaculture and Fisheries
Program 2 (P2)---- Goat Testing and Demonstrations
Program 3 (P3)---- 4-H Youth Development and Family Management
AC ----Administrative Costs
*** * Program 4 (P4)---- Rural Development**
*** * Program 5 (P5)---- Families First Nutrition Education and Wellness System**

*** * Denotes program funded from a source other than Research and/or Extension formula funds.**

Certification:

Marvin Burns	**Vernon L. Jones**
Research Director	**Administrator**
	Cooperative Extension Program