

MOVING AES FORWARD

Task Force Proposal

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Moving AES Forward

DEFINED PURPOSE OF THE AGRICULTURAL EXPERIMENT STATION

The University of Missouri Agricultural Experiment Station (AES) has a storied history of major impacts in advancing science in agriculture, food and natural resources — locally, nationally and globally. Moreover, this significant research has applications outside the area of agriculture. From the 1945 discovery of the antibiotic aureomycin at Sanborn Field to the ground-breaking work being done in swine genomics — which has applications to human diseases such as cystic fibrosis and diabetes — the AES has contributed to improving the quality of life for the people of Missouri and beyond.

AES research is conducted on centers throughout the state. These research centers are an integral part of the University of Missouri. Indeed, they are the off-campus research laboratories for the College of Agriculture, Food and Natural Resources (CAFNR) — carrying out invaluable faculty research and educational efforts on behalf of the university for Missourians and those beyond our state borders. These CAFNR laboratories provide research faculty with a wide variety of real-world conditions where they are able to test and develop strategies for agricultural production, based on the major geographical and cultural differences of this diverse state.

Challenges

In recent decades, recurring budget cuts have negatively affected the AES' ability to stay at the forefront of basic, translational and applied research. Reduced funding has resulted in declining numbers of faculty, reduced faculty engagement, outdated infrastructure and a decline in the impact of research activities. Currently, 22 AES properties are scattered throughout the state — some do not have any research activities. Additionally, some research centers have operated without a concerted research focus, and the supervisory chain of command is convoluted. Many stakeholders report a serious dearth of communication about research being conducted and how it impacts the state.

INVENTORY, FUNCTIONS AND NAMING OF CENTERS

This task force recommends an enterprising restructure of AES centers, based on the hub model proposed by the External Review Team Report of January 22, 2021. The new structure proposal builds upon this concept and carries it forward by embracing redefined functionality, identity and reporting structure for the various AES properties.

Four hub research, extension and education centers

After carefully weighing geographic locations, facilities and programming focus of the centers, the recommendation is to establish four hub **AES Research, Extension and Education Centers**. Each of these four hub centers will have a full-time director. These four centers will be full-fledged University of Missouri CAFNR laboratories, with the ability to focus on research and educational needs that apply statewide and also the ability to focus on the various agricultural needs of their particular region — needs that often differ from other areas of the state. A state map showing center restructuring appears on page 8.

Four extension and education centers

Four of the current AES centers are not as engaged in intensive research activities as are other centers. However, these four centers play key roles in regional and local community engagement with the university. Their outreach and demonstration activities better align with the mission and role of MU Extension. It is recommended to move these four centers out of the AES structure into the operational sphere of MU Extension. They will be structured into **MU Extension and Education Centers**.

Each of these centers will have a part-time director. Robust extension and engagement work is already taking place at these properties. Not only will they continue carrying out ongoing extension work, they will be better positioned to potentially partner with other educational institutions in their region for certain educational activities. Extension faculty are already located on these properties or nearby. Administrative responsibilities could be transitioned to existing extension faculty, resulting in administrative cost savings.

Restructure and realignment of centers and farms

AES Research, Extension and Education Centers and their farms will be operated by CAFNR AES.

1. **Southwest Research, Extension and Education Center**, Mt. Vernon (893 acres)
2. **T.E. “Jake” Fisher Delta Research, Extension and Education Center**, Portageville (977 acres)
3. **Mid-Missouri Research, Extension and Education Center**
 - Bradford Farm (591 acres)
 - Horticulture and Agroforestry Farm (700 acres)
 - Sanborn Field (5 acres)
 - South Farm (1,452 acres)
 - Baskett Farm (2,251 acres)
4. **Northern Research, Extension and Education Center**
 - Lee Greenley Jr. Memorial Farm (1,390 acres)
 - Cornett Farm (1,200 acres)
 - Thompson Farm (1,600 acres)

MU Extension and Education Centers will be operated by MU Extension, and will consist of four properties that do not have intensive research activities and are mainly used for education and demonstration purposes:

1. **Northwest:**
 - Graves-Chapple MU Extension and Education Center (199 acres)
 - Hundley-Whaley MU Extension and Education Center (375 acres)
2. **Central:**
 - Wurdack MU Extension and Education Center (1,217 acres)
 - Jefferson Farm MU Extension and Education Center (67 acres)

The remaining properties would be leased, partnered, self-sustainable or divested*. Original gift and endowment agreements should be reviewed in making these determinations.

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|---------------------|---|
| 1. Foremost Dairy** | 5. Claypann |
| 2. Turkey | 6. Bertha Brown |
| 3. Timmons | 7. Land of Osage (self-supporting, per endowment) |
| 4. Schnabel Woods | 8. Sorensen Farm |

* *If any farm is divested, the proceeds will be placed in an endowment to support the AES.*

** *Recommend relocating the dairy operation to South Farm as a model/demonstration/teaching dairy. The Foremost Dairy property would then be repurposed.*

REPORTING STRUCTURE

AES Research, Extension and Education Center faculty and staff reporting lines

- Clear lines of reporting and decision making should be established for AES centers. Each of the four AES Research, Extension and Education Centers will have a director who will report directly to the AES director/CAFNR associate research dean (hereafter referred to as AES director). The various CAFNR divisions and schools will no longer have this authority.
 - In cases where a center has multiple, scattered farm properties, individual farm managers may be needed to assist the director. Farm managers will report directly to the center director.
 - Position descriptions for center directors, farm managers and other staff should be redefined and applied statewide to ensure consistency of expectations for employee effort and to assist in performance evaluations.
- All faculty doing research at a center will have a “dotted-line” reporting structure to the center director.
 - Along with the respective advisory committee, the director will also have direct input in faculty hires who are anchored at a farm or center. This will give center directors the opportunity for input on performance appraisals and any center operational concerns.
- Faculty with a full-time or part-time MU Extension appointment who work on one of the four AES Research, Extension and Education Centers will have a “dotted” reporting line through the MU Extension senior program director for agriculture and environment/CAFNR associate extension dean.
- All final decisions related to budgets, endowments, expenditures for the AES Research, Extension and Education Centers must be approved and authorized by the AES director

Advisory committees

- Each center will develop, cultivate and maintain a center advisory committee to anchor and maintain community support and understanding within the region it serves.
 - Where a center is comprised of multiple farms, center advisory committee membership will come from nominations from each farm. Appointments will be made by AES director.
 - As needed, farms could develop their own advisory committees, with approval of the AES director.
 - These committees will serve solely in an advisory capacity to the center director and AES director, not as governing boards. Stakeholder input is crucial and needed for community support; however, this input should be strictly advisory.
 - Existing advisory committee by-laws should be reviewed, revised and standardized across AES to reflect an advisory role that promotes leadership and communication for the center.
- A council of center directors will meet weekly with the AES director to discuss and approve faculty requests and needs for acreage and space to do research.
- To provide overall coordination and leadership, it is recommended there be a statewide AES Strategic Advisory Committee, appointed by the AES director and consisting of representatives from each center advisory committee, CAFNR faculty and some external partners from other land-grant universities, agencies, commodity and/or partner organizations.

MU Extension and Education Center faculty and staff reporting lines

- Directors at each of the extension and education centers will report directly to the MU vice chancellor for extension and engagement or his designee.
- MU Extension faculty stationed at an extension and education center will continue with their already established reporting lines. Additionally, they will have a “dotted” reporting line to the center director.
- Staff at the extension and education centers will report directly to the center director.

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- All faculty doing research at an extension and education center will have a “dotted-line” reporting structure to the center director.
 - All final decisions related to budgets, endowments, expenditures for the MU Extension and Education Centers must be approved and authorized by the vice chancellor for extension and engagement.
 - Each center’s advisory committee will continue to serve as a vital link to connecting the work of the center to MU Extension.

Fiscal, human resources and field operations

Fiscal, human resources and field operations at both research, extension and education centers as well as extension and education centers will be centralized for cost savings and efficiency.

POTENTIAL ANNUAL SAVINGS

Administrative restructure and realignment of centers and farms

- This action is estimated to generate an additional savings of nearly \$200,000 per year as a result of reducing staff positions, as staff can float among operations as needed.
- Administrative restructuring is estimated to generate an additional savings of \$120,000. Although there will be savings from consolidating center leadership to only four directors, increased salaries for these positions will offset some of the savings, resulting in a net gain of approximately \$120,000.
- The total savings from this action is estimated to be about \$320,000 per year that can be reinvested in the new structure.

Fiscal, human resources and field operations centralization

- This action will result in savings (salaries and benefits) of approximately \$500,000 per year that will be reinvested in the new structure. The savings will come from elimination of certain fiscal and construction positions.

UNIVERSITY CONNECTION, SUPPORT AND FUNDING

AES has gone through budget reductions, changes in funding sources and reductions in faculty. This situation has greatly affected the ability of the AES to maintain its recognition as one of the nation’s top agricultural research enterprises. In order to bring back this invaluable synergy and energy to agricultural research in Missouri, the University of Missouri must find a way to create a stable and consistent base funding for each of the four newly created centers.

University connection

- There is a need for resident faculty at centers and farms. This must be strategically decided by center directors with approval of the AES director.
 - Resident research center faculty could “teach back” via online platforms to students on the traditional campus — enhancing the learning experience by bringing real-world applied research to the classroom.

University support

- Nearly all of the research centers have experienced crippling requirements by campus construction and facilities entities when they have attempted to build, repair or remodel center facilities that are not funded centrally by campus. There is a strong need for more flexibility from campus regarding non-campus-funded facilities at the centers.

Funding

- Recommend the university provides additional base support for each of the four research, extension and education centers.
 - The flow of overhead (referred to as finance & administrative funding, or F&A funding) to centers based on faculty effort is an issue that needs to be addressed.
 - The centers are the university’s off-campus research laboratories and should be supported by university oversight and operations as extended campuses.

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- Explore new external development and partnership opportunities to help fund center needs.
 - Explore industry partnership opportunities, such as value-added agriculture and food processing operations, that would benefit area and statewide producers.
 - There is a strong need for a uniform and consistent procedure for centers to follow when assigning and charging research faculty for acreage and building square footage.
 - Recommend that the university provide appropriate funding for the four MU Extension and Education Centers. This could be done through some of the gains made through the efficiencies of the new structure.

COMMUNICATIONS, EDUCATION AND OUTREACH

Discussions with various stakeholders representing commodity groups, the Missouri Department of Agriculture, producers, and others, revealed there is a lack of communication between the research centers and their stakeholders. Many reported their only way of learning what is going on at research centers is by attending the traditional field days — events which have seen declining attendance, particularly among younger farmers and ranchers.

Communications

- It is clear that comprehensive communications plans need to be developed for the centers to show stakeholders the value and application of the important research being done there.
 - The current communication model is not reaching farmers in the 20- to 50-years-old generation. There is a need to develop and implement effective ways of communicating with them.
 - Centers are not currently reaching young farmers and ranchers who are starting out in agriculture. AES Research, Extension and Education Centers, in collaboration with MU Extension and Education Centers, are prime channels for bringing them on site for workshops and demonstrations that can help start their careers. Online learning platforms can help sustain this effort.

Education and outreach

- Workshops and farm tours continue to be valuable learning opportunities that draw farmers and ranchers to the centers, and are necessary to communicate the impact of research being done there. Additionally, farm tours serve as an entry point for youth who may consider agriculture as a career. Urban and town audiences can learn and become aware of the impact the industry has on their lives by attending farm tours.
- The use of virtual platforms to increase the reach of workshops and farm tours must be strengthened and enhanced for greater reach and effectiveness.
- There is great potential for centers to offer courses that would enable them to get off-campus degrees, credentialing or certification in specific areas, such as irrigation, row crops, precision agriculture, etc. Young farmers and ranchers who can't come to the MU campus for a traditional university education can still benefit from university coursework, workshops and continuing education programs by participating as part of the extended campus.
- Micro-grad degrees are a valuable way to extend the campus to outlying regions of the state. Students could attend courses held at a center (face-to-face or via a virtual platform) and earn a "micro masters" degree after completing nine hours of coursework.

TIMELINE FOR PHASING IN RESTRUCTURING

Successful implementation of the recommended major restructuring will require a three-pronged approach.

1. There must be a **strategic approach in communicating the restructuring to stakeholders**. Care must be taken to point out how this new structure will better benefit stakeholders locally and statewide because of fiscal efficiencies, increased research investment, coordinated research and education efforts, and renewed focus and commitment.
2. It is crucial to **inform faculty and staff who will be affected by this restructuring** as early as possible, and work with them as they redefine their jobs and possibly redeploy.
3. Most of the proposed **restructuring can be implemented within a nine-month period**.

PHASE 1

August 1 – October 31:

- Redefine position descriptions for center directors, farm managers and other staff.
- Post and recruit directors for the four research, extension and education centers.
- Restructure fiscal and human resources operations and processes.
- Institute uniform and consistent procedure for centers to follow in charging research faculty for acreage and building square footage.
- Assess staffing needs for each center, farm, and extension and education center.
- Develop and implement a transition plan for MU Extension and Education Centers.

PHASE 2

November 1 – January 30:

- Hire a director for each of the four AES Research, Extension and Education Centers.
- Establish council of center directors and implement weekly meetings with AES director.
- Implement redefined position descriptions for center directors, farm manager and other staff.
- Review the bylaws, policies, naming conventions and training for all advisory committees.
- Meet with advisory committees for input on advisory committee restructuring.
- Establish initiatives regarding development and partnership opportunities.
- Work with campus facilities and construction administrators to obtain more flexibility regarding non-campus-funded facilities at centers.
- Develop communications plans for centers to follow to show stakeholders the importance of their applied research.

PHASE 3

February 1 – April 30:

- Complete and implement revisions to bylaws, policies, naming conventions and training for all advisory committees.
- Establish a statewide AES Strategic Advisory Committee.
- Implement communications plans that centers may follow to show stakeholders the importance of their applied research.
- Examine how off-campus degrees, credentialing and certification programs can be implemented at the centers.
- Explore how to implement micro-grad degrees by extending the campus to the centers.
- Determine how resident research faculty at the centers can “teach back” via online platforms to students on the traditional campus.

ACKNOWLEDGEMENTS

The task force acknowledges the fine work that was done by Dean Christopher Daubert, MU College of Agriculture, Food and Natural Resources, and the internal and external teams who studied the AES and made recommendations for moving forward.

Over a five-week period, the task force met with a broad range of internal and external stakeholders who voiced their needs and concerns about the future of the AES. Along with the work done by Dean Daubert's teams, these candid stakeholder conversations helped shape the recommendations presented by this task force.

These meetings took place in person, in Zoom and phone conversations, and included:

- The director of the Missouri Department of Agriculture, as well as six former directors
- The director of the Missouri Department of Conservation
- Representatives from eight agricultural commodity groups (including beef, dairy, pork, corn, rice, soybean, cotton and agroforestry)
- President of Missouri Farm Bureau
- President and CEO of MFA Inc.
- Executive director of Missouri Agribusiness Association (MO-AG)
- Former state and national director of the USDA Farm Service Agency
- MU College of Agriculture, Food and Natural Resources Foundation members
- Research center stakeholders and superintendents from Southeast, Southwest, Central and Northern Missouri

A more detailed *Dialogues With Stakeholders* list appears on page 9 of this report.

Missouri's AES is an extraordinary asset with significant potential to serve not only Missouri agriculture, but the University of Missouri System and the entire state in new and exciting ways. These task force recommendations reflect both pride in AES and a desire for improvement expressed by internal and external stakeholders.

Special thanks to Joe Vale, editorial consultant, for his help with the writing and editing of this report.

UNIVERSITY OF MISSOURI AGRICULTURAL EXPERIMENT STATION (AES)

NORTHERN RESEARCH, EXTENSION & EDUCATION CENTER:

THOMPSON FARM
1,600 acres

LEE GREENLEY JR. MEMORIAL FARM
1,390 acres

CORNETT FARM
1,200 acres

HUNDLEY-WHALEY
MU EXTENSION &
EDUCATION CENTER
375 acres

MID-MISSOURI RESEARCH, EXTENSION & EDUCATION CENTER:

BASKETT FARM
2,251 acres

BRADFORD FARM
591 acres

HORTICULTURE & AGROFORESTRY
FARM
700 acres

SANBORN FIELD
5 acres

SOUTH FARM
1,452 acres

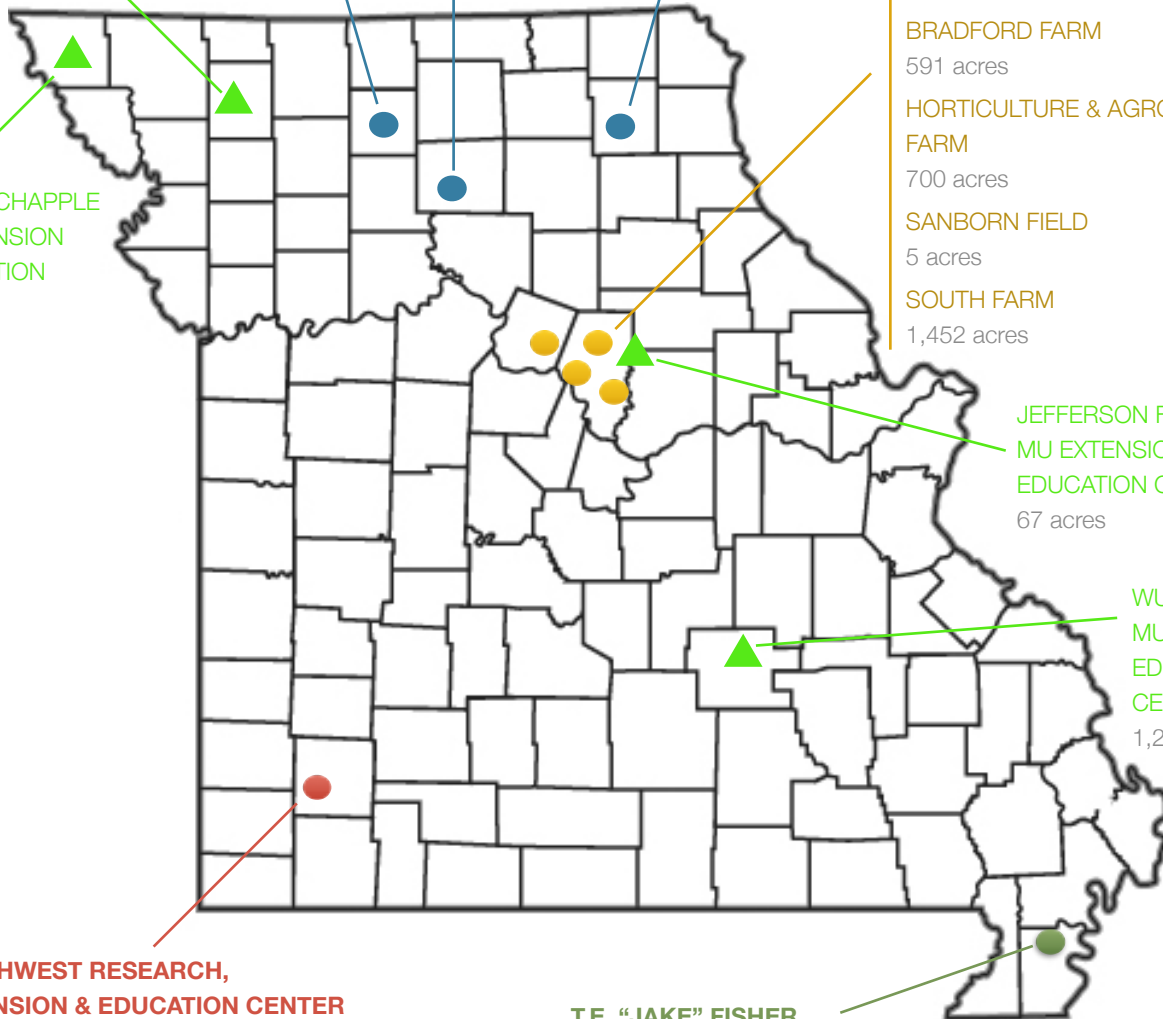
GRAVES-CHAPPLE
MU EXTENSION
& EDUCATION
CENTER
199 acres

JEFFERSON FARM
MU EXTENSION &
EDUCATION CENTER
67 acres

WURDACK
MU EXTENSION &
EDUCATION
CENTER
1,217 acres

**SOUTHWEST RESEARCH,
EXTENSION & EDUCATION CENTER**
893 acres

T.E. "JAKE" FISHER
DELTA RESEARCH, EXTENSION & EDUCATION CENTER
977 acres



Dialogues With Stakeholders

The two-person AES Forward Task Force was charged to seek input from a broad range of relevant internal and external stakeholders as a crucial step in reviewing and recommending actions for future effectiveness and increased impact of the MU Agricultural Experiment Station.

Over the course of a five-week period, revealing dialogues took place with the following stakeholders in face-to-face, Zoom and phone conversations.

EXTERNAL STAKEHOLDERS

1. Brian Brookshire, executive director, Missouri Forestry Products Association
2. Don Nikodim, executive director, Missouri Pork Producers Association
3. Bradley Schad, CEO, Missouri Corn Growers Association
4. Andrea Jones and Kim Mayberry-Holifield, Missouri Cotton producers
5. Gary Wheeler, executive director, Missouri Soybean Association
6. Mike Deering, executive director, Missouri Cattlemen's Association
7. David Martin, vice chair, Missouri Rice Merchandising Council
8. Paul Heins, Missouri dairy producer
9. Chris Chinn, director, Missouri Department of Agriculture
10. Don Steen, former director, Missouri Department of Agriculture
11. John Saunders, former director, Missouri Department of Agriculture
12. Tim Kelley, former director, Missouri Department of Agriculture
13. Garrett Hawkins, president, Missouri Farm Bureau; former deputy director, Missouri Department of Agriculture
14. Charlie Kruse, Fisher Delta Research Center Advisory Board member; former president, Missouri Farm Bureau
15. Steve Taylor, executive director, MO-AG (Missouri Agribusiness Association)
16. Ernie Verslues, CEO, MFA Inc.
17. Blake Hurst, former president, Missouri Farm Bureau
18. Richard Fordyce, former state and national director, USDA Farm Service Agency
19. Sara Parker Pauley, director, Missouri Department of Conservation

INTERNAL STAKEHOLDERS

Multiple members from CAFNR faculty, MU Extension, research center advisory boards, research center superintendents, as well as local producers participated in each center's dialogue session.

1. Fisher Delta Research Center
2. Graves-Chapple Research Center
3. Hundley-Whaley Research Center
4. South Farm Research Center
5. Bradford Farm Research Center
6. Horticulture and Agroforestry Research Center (HARC)
7. Wurdack Research Center
8. Forage Systems Research Center (FSRC)
9. Thompson Research Center
10. Greenley Research Center
11. Baskett Wildlife Research and Education Center
12. Southwest Research Center