agInnovation Business Meeting

March 5, 2025

2:00 to 4:00 pm ET

Time	Item #	Topic	Presenter
2:00	1.0	**Chair's Welcome**	Steve Lommel
2:05	2.0	**agInnovation Rules of Operation - vote**	Rick Rhodes
2:15	3.0	**agInnovation Research Roadmap**	Steve Lommel
	3.2	Reflections on the process	George Smith
	3.3	Revised Roadmap Pillars	Steve Lommel
	3.4	Discussion	Membership
2:45	4.0	**Integrated LGU Roadmap**	Steve Lommel
	4.1	Power of a Unified Message to Congress	Elizabeth Stulberg
	4.2	Extension Roadmap	Vonda Richardson
	4.3	Academic Programs	Claus Tittiger
	4.4	Next steps: Governance Committee Communications consultant Stakeholder roundtables	Steve Lommel
	4.5	Discussion	Membership
3:25	5.0	**Roadmap Implementation**	
		STC – Implementation activities	Nathan Slaton
		BLC – Implementation activities	Gary Pierzynski
		Other Business	
3:35	6.0	DCC Discussion	Nina Lyon-Bennett
4:00		**Adjourn**	

Upcoming agInnovation Meetings:

- July 14-16, 2025: BAA Leadership Summer Meeting, TBA
- September 15-18, 2025: agInnovation Annual Meeting, Milwaukee, WI (Joint with Cooperative Extension)

agInnovation Fall Business Meeting

Wednesday, September 25, 2024
9:30 am to 12 noon (Note: All times listed are ET)
Oak Forest Ballroom, Sheraton Raleigh Hotel, Raleigh, NC
For Zoom, contact chamilton@wisc.edu

AGENDA

Time	Item #	Topic	Presenter	Action Requested
9:30 am	1.0	Chair's Welcome	George Smith, FFY24 agInnovation Chair	None
9:35 am	2.0	Approval of agInnovation Summer Leadership Meeting Notes	George Smith	Approval by Acclamation
9:40 am	3.0	Lewis-Burke and Associates (LBA) Hill Update	Elizabeth Stulberg, LBA	For information
9:50 am	4.0	FANR Update, including Capacity Campaign and Decadal Vision Overview	Doug Steele, APLU	For information
10:00 am	5.0	agInnovation Research Roadmap Update	George Smith	For information
10:15 am	6.0	agInnovation Standing Committee and agInnovation 501(c)(3) Updates • Finance Committee ○ Investment account: Matt Wilson, 5 min • BLC: Anton Bekkerman, 5 min • DCC: Brian Raison, 5 min • NRSP-RC: Steve Lommel, 10 min • STC: Nathan Slaton, 5 min • agInnovation 501(c)(3): Bret Hess, 5 min	Committee Chairs or as listed	For information and NRSP-RC vote needed
10:50 am	*Break - 15 min*			
11:05 am	7.0	AG-NGINE Update	Elaine Turner, UF/IFAS Dean	For information
11:15 am	8.0	CY2025 Budget Recommendations	Matt Wilson	For information
11:25 am	9.0	Chair Reflections	George Smith	For information
11:35 am	10.0	Honoring agInnovation Colleagues - Retirements and New Positions	George Smith	For recognition, celebration

11:40 am	11.0	Welcoming New agInnovation Leadership: Steve Lommel, FFY25 agInnovation Chair	George Smith	For information
11:45 am	12.0	Incoming Chair's Initiatives	Steve Lommel	For information
11:55 am	13.0	Other Business, as needed	TBD	TBD
12 noon - Adjourn for Lunch				

Upcoming Meetings:

- APLU Annual Meeting, November 10-12, 2024, Orlando, FL.
- 2025 CARET/BAA Washington Conference, February 23-26, 2025, Washington, DC. More details to come.

Consent Briefs:

- ACE Workshops
- Policy Board of Directors (PBD)
- NRSP1 Management Committee

Meeting Slides (double click to open):

agInnovation
Business Meeting All S

MEETING NOTES

Fathom AI meeting recording and summary: https://fathom.video/share/gEFe_gczhMpRxAqhfxFrACpPwaF4wcwL

Item #	Topic	Notes	Action Taken
1.0	Chair's Welcome	George Smith, FFY24 agInnovation Chair convened the meeting and welcomed all attendees.	None
2.0	Approval of agInnovation Summer Leadership Meeting Notes	George requested approval of the summer meeting notes as distributed.	agInnovation Summer Leadership Meeting notes approved by acclamation
3.0	Lewis-Burke and Associates (LBA) Hill Update	Elizabeth Stulberg, LBA, provided an update on the current state of government funding, noting that a government shutdown was avoided through a continuing resolution to fund the government through December 20th. She also discussed the status of the Farm Bill, indicating that there are still some differences between the House and Senate versions that need to be resolved, but that progress is being made and a farm bill could potentially be passed by the end of the year. Elizabeth also encouraged the group to send them our stories and people to showcase for more impactful advocacy.	For information
4.0	FANR Update, including Capacity Campaign and Decadal Vision Overview	Doug Steele, APLU FANR (Food, Agriculture, and Natural Resources) Vice President, provided reflections on agInnovation's work and priorities, he was especially positive about the Research Roadmap and the capacity programs task force. Doug also thanked the group for their engagement and commitment, highlighted the important contributions of the regional executive directors, and discussed the upcoming annual APLU meeting in November and initiatives, including the Ag Innovation Research Roadmap and efforts to increase capacity funding. Doug also reiterated Elizabeth Stulberg's recommendation to share stories of impactful efforts and people, connect with your representative in Congress, understand that the Senate wants rural growth and help identify champions of our work.	For information

		Finally, remember that the RFA (Research Facilities Act) is still important and will make a difference for us and the country.	
5.0	agInnovation Research Roadmap Update	George Smith presented the background and an update on the status of the agInnovation Research Roadmap: • Research Roadmap originally born out of funding frustrations and a desire to try something new. We can no longer do more with less and we're falling behind in the world in ag research and innovation. • This Roadmap is a strategic and long-term approach and serves as a platform for conversation that will enable us to stay on message, regardless of federal funding climate. • Three over-arching focal areas that everyone can understand: Climate Solutions, Water Resilience, and Sustainable Food Systems. • The rollout of the Roadmap occurred at the Summer Joint Leadership meeting in RI and it's been shared with other APLU sections. More recently, it's been shared with many stakeholders, including federal funding agencies. It's been well received, especially because of the specifics and metrics of our 10-year approach. • Aspirational funding strategy = 1% of federal R&D budget ($1.9B/year over 10 years) • Now, we need all directors' feedback and help socializing the documents more widely to collect information on what works and what could be improved. Please provide this feedback by 11/1/1024 to Jeanette Thurston (Jthurston@ksu.edu). • NC-FAR lunch and learn on the Hill last week featured the Roadmap and solicited input from stakeholders. Three stakeholders, The Nature Conservancy, the	For information and, please share widely and collect feedback from your local stakeholders. Send us (George, Jeanette, Steve) this feedback by November 1. We need your help!

		International Fresh Produce Association, and the National Coalition for Food and Agriculture Research kicked off the stakeholder listening session. • George thanked Jeanette for all her support in this effort. Steve Lommel will take over as he steps into the agInnovation chair role for FFY25, taking over for George. • Analytics show that the draft roadmap launch led to the highest single-day traffic to agInnovation.info. • Going forward, the plan is to continue to share and collect feedback from stakeholders. We want to know what is good and what we need to make it better. Please share widely and collect feedback from your local stakeholders. Please send us this feedback by November 1 to Jeanette Thurston (Jthurston@ksu.edu). We need your help!	
6.0	agInnovation Standing Committee and agInnovation 501(c)(3) Updates • Finance Committee ○ Investment account: Matt Wilson, 5 min • BLC: Anton Bekkerman, 5 min • DCC: Rick Rhodes for Brian Raison, 5 min • NRSP-RC: Steve Lommel, 10 min • STC: Nathan Slaton, 5 min • agInnovation 501(c)(3): Bret Hess, 5 min	Listed presenters provided committee updates as included in the linked agenda briefs below and/or included slides. DCC additional comments from Rick Rhodes: We acknowledge the accomplishments of the DCC winners today, as well as all the good work being done across the country. Please consider nominating groups and individuals for future awards and let the committee know of any suggestions you might have for the committee and the awards. IDI (Intercultural Development Inventory) will be administered by the DCC again – coming soon.	For information and NRSP-RC motion vote for the questions presented below and in the electronic vote (Jane Schuh, KSU, seconded to motion): Question 1, NRSP3 proposal and budget approval for 10/1/2024 to 9/30/2029: **Approved by simple majority.** Question 2, acceptance of revising NRSP-RC guidelines to allow earlier, electronic voting on new and renewal projects: **Approved by simple majority.**

7.0	AG-NGINE Update	Elaine Turner, UF/IFAS Dean, presented her slides (included with the meeting slides file) on the AG-NGINE effort and questioned questions from the group.	For information
8.0	CY2025 Budget Recommendations	Matt Wilson presented the agInnovation CY2025 budget recommendations (included with the business meeting slides file). Details on this budget will also be sent out one month prior to an electronic vote.	For information
9.0	Chair Reflections	George Smith provided closing remarks, thanking the group for their work and leadership, and highlighting the progress made during his tenure as Ag Innovation Chair. His recommendations were for agInnovation members to stick together and stay on message to move our work forward and to think critically and strategically about our complex structure and processes (specifically asked the EDs to tackle this).	For information
10.0	Honoring agInnovation Colleagues - Retirements and New Positions	George Smith recognized the agInnovation members who have retired or otherwise left their positions in 2023/2024.	For recognition, celebration
11.0	Welcoming New agInnovation Leadership: Steve Lommel, FFY25 agInnovation Chair	George Smith introduced Steve Lommel as the incoming Ag Innovation Chair and provided him with a chair's gavel.	For information
12.0	Incoming Chair's Initiatives	Steve Lommel outlined his priorities and initiatives for the coming year, including a focus on the Ag Innovation Research Roadmap, facilitating research collaborations, and exploring a "moonshot" initiative on accelerated plant breeding (included in meeting slide set)	For information
13.0	Other Business, as needed: • Vacant position needing to be filled on our partner committees.	George Smith presents the agInnovation vacant positions on our partner committees, along with the nominees we have currently: BAA PBD alternate nominee: Sreekala Bajwa; ECOP Liaison: John Blanton; NC-FAR Representative: Steve Lommel suggested Chandra Reddy. Alton Thompson will ask and report back.	**Actions Taken:** Both Sreekala Bajwa and John Blanton were approved unanimously for their respective roles by verbal acclamation by agInnovation members in attendance. Alton Thompson will contact Chandra Reddy to see if he is willing to serve as the agInnovation

	• Honoring George Smith as outgoing agInnovation chair	Jeanette Thurston presented on screen the plaque to be sent to George, honoring him for his time and excellent efforts as the 2023/2024 agInnovation chair.	representative to NC-FAR and report back to agInnovation leadership.

Meeting adjourned at 12:10 pm ET.

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Revision of the RULES OF OPERATION: agInnovation
January 15, 2025

Below is a brief explanation of changes made to the Rules of Operation of the Experiment Station Section and the Experiment Station Committee on Organization and Policy (ESCOP), now known as agInnovation.

- The Rules of Operation (last revised March 2023) were updated to include the name of the new organization, agInnovation, and the regional associations of agInnovation. References to ESCOP were eliminated, and agInnovation was co-defined as "the Section". Likewise, the Rules were revised to reflect the ways that business is conducted by the organization.

- Seven standing committees were identified as important entities for agInnovation, and these include: an Executive Committee, Budget and Legislative Committee, Diversity Catalyst Committee, Finance Committee, National Plant Germplasm Coordinating Committee, National Research Support Project Review Committee, and Science and Technology Committee.

- The agInnovation Executive Committee in the revised Rules of Operation is a decision-making body that is best characterized as a streamlined "ESCOP". (In the original Rules of Operation, ESCOP was defined as the Executive Committee of the Experiment Station Section and Rules also described an Executive Committee for ESCOP.) The Chair's Advisory Committee was removed from the Rules and is considered an ad hoc committee convened by the agInnovation chair.

- For all leadership positions, terms of the positions are defined as well as roles, responsibilities, and, where applicable, procedure for nomination, confirmation, and election. Likewise, for each of the standing committees, membership and membership terms are defined as well as committee member roles. Roles, responsibilities, and terms are all consistent with the ways that agInnovation currently engages in business.

- New items captured in the revised Rules of Operation include reference to agInnovation's 501(c)(3) non-profit and the relationship between agInnovation (the organization) and the non-profit. The revised Rules also allow the agInnovation Chair to request expenditures of not more than $5,000 with a maximum total of $20,000 (i.e., 4 requests at $5,000 each) for a calendar year with approval by a simple majority of the Finance Committee. Expenditures greater than $5,000 and less than $20,000 can be approved by a simple majority of the Executive Committee. Expenditures of greater than $20,000 require approval by a majority of agInnovation.

RULES OF OPERATION
agInnovation

Board on Agriculture Assembly
Association of Public and Land-grant Universities

*Developed from a merger of the "By Laws of Experiment Station Section, Division of Agriculture" and "The Purposes, Organization and Procedures of the Experiment Station Committee on Organization and Policy (ESCOP)". Revised Xxxxxx 2025, March 2023, September 2019, September 2016, September 2012, September 2008, October 2005, September 2004, September 2003, September 2001, September 2000, September 1999; Adopted November 1998.

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ARTICLE I -- NAME
The name of this organization shall be agInnovation (hereafter called agInnovation or the Section), an entity and a member of the Board on Agriculture Assembly (BAA) of the Association of Public and Land-grant Universities (APLU). agInnovation was formally known as the Experiment Station Section. The Section is established in accordance with the rules of operation of APLU. The Section is also supported by agInnovation Non-profit, a 501(c)(3), described in Article VII.

ARTICLE II -- PURPOSE
The Section shall be composed of the directors of Agricultural Experiment Stations (AES) associated with the 1862 Land-grant Universities, including the Connecticut Agricultural Experiment Station at New Haven, and the directors of the Agricultural Research Programs at the 1890 Land-grant Universities. agInnovation represents the directors in their collective dealings with other units of APLU, coalitions, agencies of the federal government, farm organizations, commodity and agricultural business groups, professional societies, and the public with the primary goal of advancing agricultural research.

ARTICLE III -- MEMBERSHIP, ORGANIZATION AND FUNCTION
The individual members of the Section comprise the legislative body of the Section. The Section will hold semiannual business meetings, in the Fall (September or October, typically face-to-face) and one in the Spring (March or April). Interim business is handled by the Executive Committee of agInnovation and by the five regional associations. State Agricultural Experiment Station (SAES) directors are organized into four geographically based associations (agInnovation Northeast [formerly known as the Northeast Regional Association of State Agricultural Experiment Station Directors – NERA; agInnovation North Central [formerly known as the North Central Regional Association of State Agricultural Experiment Station Directors – NCRA]; agInnovation South [formerly known as the Southern Association of Agricultural Experiment Station Directors, and agInnovation West [formerly the Western Association of Agricultural Experiment Station Directors – WAAESD]). A fifth region is the Association of 1890 Research Directors, Inc. (ARD) which is comprised of the agricultural research directors of the 1890 Land-grant Universities.

These five regional associations arrange for and conduct their business independently, including the collection and disbursement of funds for purposes agreed to among the members of each association. These associations are autonomous, and their funds are not the responsibility of the Section, the BAA, or APLU, either as to program content or accountability. The five associations designate members to the agInnovation Executive Committee, make recommendations to the agInnovation Executive Committee and to the Section, and respond to proposals from the agInnovation Executive Committee and the Section.

For purposes of these Rules of Operation, the title "Director" refers to the Chief Operating Officer of agricultural research programs and his/her associate or assistant directors. The will of the Section's majority for issues that are ratified by, reported to, or recommended to APLU, shall be conveyed through the representative to the BAA Policy Board of Directors (PBD) to other officers or committees of APLU. The Section shall conduct its affairs in accordance with the Rules of Operation with one vote for each member.

The voting membership of the Section shall consist of one director from each of the 1862 and 1890 Land-grant Universities of the dues-paying member institutions of APLU. The Director of the National Institute of Food and Agriculture (NIFA), United States Department of Agriculture (USDA) (or his/her designee), the five regional association Executive Directors, and the Vice President, Food, Agriculture and Natural Resources for APLU shall be ex-officio, non-voting members of the Section.

ARTICLE IV -- AFFILIATED GROUPS

The Section provides for interaction with other groups involved in research that is similar or complementary to the research done within SAESs (1862) and the Agricultural Research Programs (1890) through their affiliation with the Section. Presently established affiliated groups are the Board on Health and Human Sciences (BHS), Board on Natural Resources (BNR), the National Association of University Forest Resources Programs (NAUFRP), the Board on Veterinary Medicine (BVM) and the First Americans Land-grant Consortium (FALCON). The NAUFRP, which includes institutions that are not members of APLU, is presently affiliated with the Section.

ARTICLE V -- OFFICERS AND RESPONSIBILITIES

agInnovation Officers

The officers of the Section are: Chair, Chair-Elect, and immediate Past-Chair, each serving one-year terms; and a representative from the Section to the APLU BAA PBD elected for a two-year term (as per the Rules of Operation of the BAA). The Executive Director from the region of the Chair shall serve as the Executive Vice Chair of the Section. The one-year terms of the Chair, Chair-Elect, and Past Chair shall expire at the close of the Fall agInnovation business meeting. The BAA PBD representative serves for two years with his/her term expiring at the close of the annual meeting of APLU in the last year of his/her term.

Nomination and Confirmation of Chair-Elect

The nominations for Chair-Elect shall be made by the respective regional association according to the rotation schedule below. The nominee is presented for confirmation by the Chair as a seconded motion from the EC at the Fall agInnovation meeting. The agInnovation Chair rotates among the five regions in the following order: ARD, agInnovation West, agInnovation Northeast, agInnovation North Central, and agInnovation South.

Election of the BAA Policy Board of Directors' Representative
According to the rules of the BAA PBD, the agInnovation representative serves a two-year term and may be elected to serve an additional two-year term. The election shall be conducted by the BAA either by electronic or mail ballot.

Nominees to the BAA PBD from the Section shall be currently serving as a Chief Operating Officer of an 1862 AES and, preferably, shall have served in an agInnovation leadership role. Two nominees are needed for each election cycle. These nominations for the PBD representative shall be solicited from the four regional associations (agInnovation North Central, agInnovation Northeast, agInnovation South, and agInnovation West) at the spring meetings and submitted to the EC which will select the two nominees. If the incumbent Section representative is eligible and willing to serve for an additional term, they will automatically be a nominee. The nominee receiving the most votes is elected, and the other nominee serves as the alternate. The duties of the representative to the BAA PBD are described in the BAA Rules of Operation (Article III, Section 4).

Duties of agInnovation Officers
Chair. The Chair provides leadership, direction, and counsel for all activities of the Section in its collective relationships with other units of APLU, organizations contracted to act on behalf of agInnovation, the regional associations, agencies of the federal government, coalitions, farm organizations, commodity and agricultural business groups, professional societies, and the public. The Chair initiates action on issues of importance referred to agInnovation by the regional associations and they chair meetings of the Section and the EC. The Chair approves agendas for these meetings, assigns duties, and coordinates the activities of all standing and technical committees and appoints *ad hoc* committees. The Chair also is responsible for maintaining communications through the representative to the BAA PBD, to the APLU BAA, and between agInnovation and other units of APLU.

Executive Vice-Chair. The Executive Vice-Chair performs those responsibilities delegated by the Chair. Those duties include staff support such as: development of agendas and minutes of meetings (and posting), policy option statements, and drafts of testimony; follow-up on agInnovation committee activities and initiatives; identification of possible nominees for various agInnovation committees; and continuing liaison with agencies of the federal government, coalitions, farm organizations, commodity and agricultural business groups, professional societies, and the public.

The Executive Vice-Chair provides direct and continual support to the Chair, monitors day-to- day activities affecting the Section, notifies the Chair when Section attention or action is appropriate, coordinates arrangements for meetings of the Section (with the exception of the Fall agInnovation meeting: see *Chair-Elect*), and assures that the documents and materials required to conduct the business of the Section are available to the Chair and others as appropriate. The Executive Vice-Chair prepares and provides any proposed

resolutions to the Chair.

Chair-Elect. The Chair-Elect shall serve as Chair in the absence of the Chair and becomes the Chair for the remainder of the term, should the Chair resign or otherwise be unable to serve. The Chair-Elect shall undertake other duties as the Section Chair may direct. The Chair-Elect is responsible for developing the program of the Fall agInnovation meeting and serves as the meeting host. As such, the Chair-Elect (or their designee) is charged with meeting venue selection and coordination of meeting logistics typically utilizing the meeting services of their home institution of a contract provider.

Past-Chair. The Past-Chair serves as Chair in the absence of the Chair and Chair-Elect. The Past-Chair shall also serve as the chair of the Finance Committee. Should the Past-Chair be unable to serve their full 1-year term, the Executive Vice Chair of the Finance Committee will serve as the Finance Committee chair until the next Past-Chair assumes their appointment.

Representative to the BAA PBD. The representative to the BAA PBD represents the interests of the Section to the BAA PBD. The representative shall prepare an agenda brief for presentation during the Section meeting (usually in September; see also BAA Rules of Operation, Article III, Section 4).

agInnovation Meetings

agInnovation shall meet at least twice during each calendar year, once face-to-face in the Fall and the other virtually in the Spring. Approximately every three years, agInnovation will collaborate with the Cooperative Extension Section to co-host a joint, face-to-face meeting in the Fall, taking the place of the agInnovation-only Fall meeting.

agInnovation Business Meeting Agenda

In advance of each agInnovation meeting, the Chair shall request members to submit items for the business meeting agenda, including any actions from the regional associations, actions from the EC, and agenda briefs from the chairs of all standing committees, subcommittees, ad hoc committees, and task forces. The Chair shall distribute the business meeting agenda and supplementary materials to all members at least one week prior to the meeting.

ARTICLE VI -- AGINNOVATION COMMITTEES

agInnovation Committees

The functions of the Section are accomplished principally through the work of its standing committees, subcommittees, ad hoc committees, and task forces. Standing committees are permanent committees essential to the function of the Section; they are described below in detail. Subcommittees and ad hoc committees are established by approval of the agInnovation Chair, and they function indefinitely, subject to making progress and/or at the discretion of the Chair. Task forces are temporary and function for defined periods of time, work with specific charges, and report to a sponsoring standing committee. The composition of the subcommittees, ad hoc committees, and task forces is

determined by the standing committee suggesting the establishment of such a group.

A Chair and a Vice-Chair are identified by standing committees. Furthermore, to provide staff support to standing committees, each standing committee is assigned an Executive Director from one of the five regional associations to serve as that standing committee's Executive Vice-Chair. The Executive Directors collectively and collaboratively determine the assignment of the Executive Vice-Chair to the standing committees.

To allow an orderly rotation of committee membership, regional representatives to the standing committees are nominated by the respective regional associations for staggered terms, depending on the committee and are approved by the agInnovation Chair. Individuals may be reappointed to consecutive terms by the regional associations. When possible, appointments from a region should be staggered to provide continuity. A quorum for all standing committees is considered to be the attendance by a majority of the voting members. Last, each standing committee is authorized to form subcommittees.

agInnovation Standing Committees

agInnovation Executive Committee.

The agInnovation Executive Committee (herein called the Executive Committee or EC) is empowered to formulate policy and to act on behalf of the Section, subject to the will of the Section as expressed at business meetings of the Section (face-to-face or virtual), or through referenda conducted during the interim between business meetings. The EC handles continuing business and attends to organization and policy matters, often through relationships within APLU; with coalitions; with agencies of the federal government; and with farm organizations, commodity, agribusiness groups, and professional societies referred to it by the Section or by regional associations. The EC shall handle continuing business, and organization and policy issues generated within EC, or referred to the EC by the Section, BAA, APLU, or the regional associations.

The voting members of the EC shall include:

- Chair
- Chair-Elect
- Immediate Past-Chair
- Section representative to the BAA PBD
- One member elected from each of the five regional associations. The regional representative serves a one-year term, and that member can be re-elected with no term limit.
- Chairs of the agInnovation standing committees:
  - Budget and Legislative Committee
  - Diversity Catalyst Committee
  - Finance Committee
  - National Plant Germplasm Coordinating Committee
  - National Research Support Project Review Committee
  - Science and Technology Committee

Non-voting ex-officio members and non-voting liaison representatives include:

- Director, NIFA
- Executive Directors (EDs) of the five regions
- Vice President of Food, Agriculture, and Natural Resources for APLU
- Liaison Representatives (one representative from each):
    - Academic Programs Committee on Organization and Policy
    - Council for Agricultural Research, Extension and Teaching
    - Extension Committee on Organization and Policy
    - International Committee on Organization and Policy

Other ex-officio members and non-voting liaisons may be appointed to the EC by the Chair.

Executive Committee Meeting Times

The Executive Committee shall meet as frequently as needed or as determined by the Section Chair. One such meeting of the EC will continue to be held at the BAA Summer Leadership Meeting (formerly, Joint COPs) for as long as this event is held.

Executive Committee Meeting Agenda

In advance of each EC meeting, the Chair shall request members to submit items for the agenda, including any actions from the regional associations that were referred to the EC as well as items from the chairs of standing committees, subcommittees, ad hoc committees, and task forces. The Chair shall distribute the agenda and supplementary materials to all members at least one week prior to the EC meeting.

Budget and Legislative Committee.

The Budget and Legislative Committee (BLC) is charged with developing annual justifications for the federal budget process, in consultation with the BAA Budget and Advocacy Committee and others, recommending appropriate budgets and linked to legislative initiatives. The Chair of this committee serves a two-year term and rotates among the four regions in the following order: agInnovation North Central, agInnovation West, agInnovation Northeast, and agInnovation South. While the BLC includes representation from the ARD, this region is not included in the rotating BLC Chair because the ARD is separately represented on the BAC. As outlined in the Rules of the BAA and PBD, the agInnovation BLC Chair is, by definition, a member of the BAA Budget and Advocacy Committee (BAC) and the Committee on Legislation and Policy (CLP). In addition, the ARD also has, by definition, a seat on the BAC and CLP. The ARD representatives are appointed by the ARD Chair.

The voting members of the Budget and Legislative Committee include:

- Chair
- Two Representatives from each of the five SAES/ARD regions, one serves as

Vice-Chair

Non-voting ex-officio members and non-voting liaison representatives include:

- ECOP
- APLU Board on Human Sciences
- APLU Board on Natural Resources
- APLU Board on Veterinary Medicine
- APLU Government Affairs Advocacy Consultant
- APLU Vice President of Food, Agriculture and Natural Resources
- Regional Executive Director who serves as the Executive Vice Chair

Diversity Catalyst Committee.

The Diversity Catalyst Committee (DCC) champions a long-term diversity and inclusion agenda for ESS/ARD with goals, metrics, timelines, implementation activities, and continuity of practice. The DCC engages in topics of diversity and inclusion in research leadership across the Land-grant university system, provides ideas and actions for consideration, and supplements institutional, regional, and national diversity and inclusion efforts. Lastly, the DCC serves as the review team for the National agInnovation Diversity, Equity, and Inclusion Awards. In doing so, the DCC is charged with selecting the award winners and notifying the agInnovation Chair.

The voting members of the Diversity Catalyst Committee include:

- Chair
- One or Two representatives from each of the five SAES/ARD regions
- APLU representative
- APS 1890 representative
- Diversity professional from a member institution
- ECOP representative
- NIFA Civil Rights Office
- Regional association EDs and ADs
- Regional Executive Director who serves as the Executive Vice Chair
- Regional Assistant Director

Finance Committee.

The Finance Committee has a direct oversight role regarding decisions that impact Section funds. The Section delegates supervisory responsibility for the management of Section funds to the Finance Committee.

The voting members of the Finance Committee include:

- Past- Chair (who also serves as chair of the Finance Committee)
- Chair-Elect
- Section Chair
- Two at-large members (2-year term, renewable, from regions not represented by the Past-Chair, Chair-Elect, and current Section Chair

Non-voting ex-officio members and non-voting liaison representatives include:

- Regional Executive Director who serves as the Executive Vice Chair

The Finance Committee shall draft and present a budget and budget narrative to the EC, for review and approval prior to presenting the budget to the Section during the Fall agInnovation meeting ; act in an advisory capacity and give counsel regarding financial matters affecting the organization; coordinate payments/reimbursements from Section operating funds with appropriate APLU offices and personnel (e.g., Vice President of the Office of Food, Agriculture and Natural Resources and Office of Finances); conduct an orientation for the Section and/or the EC on income and expenses; and review the investment plan annually. The specific responsibilities of the Finance Committee and the investment policies of the Section are described in the "Investment Policy of agInnovation". The Finance Committee shall also work collaboratively with the agInnovation Non-profit (see Article VII).

A description of budget approval and assessment setting can be found in Article VI – Assessments and Budgets.

National Plant Germplasm Coordinating Committee.

The National Plant Germplasm Coordinating Committee (NPGCC) promotes a stronger, more efficient, more widely recognized and better utilized National Plant Germplasm System (NPGS). Its goals are to facilitate the coordination of ARS, NIFA and SAES planning and assessment mechanisms for NPGS policy, organization, operations and support; promote awareness and understanding of the NPGS across ARS, NIFA, and SAES and, more broadly, to the scientific community; and serve as a vehicle for improving communications and discussions about issues impacting the NPGS with ARS, SAES, and NIFA. It assesses, develops and recommends to the ARS, NIFA and SAES strategies for improved coordination of NPGS activities; develops and recommends a process for improved communication of the value of the NPGS; initiates a strategic planning effort for the NPGS to better define and communicate the vision, mission and short- and long-term goals; and evaluates current funding models for the NPGS and reports findings to the ARS, NIFA and SAES directors.

The voting members of the National Plant Germplasm Coordinating Committee include:

- Chair, a representative from a regional association
- One representative from each of the other four SAES regions (preferably from an institution that is a host of regional germplasm center)
- Three representatives from USDA ARS
- Two representatives from NIFA that could include the National Program Leader and a regional administrator

Non-voting ex-officio members and non-voting liaison representatives include:

- AOSCA

- ASTA
- NAPB
- PBCC
- Regional Executive Director who serves as the Executive Vice Chair

National Research Support Project Review Committee.

The National Research Support Project (NRSP) Review Committee (NRSP RC) is charged with establishing criteria for the annual review of NRSPs and for review of proposals for revised or new NRSPs; annually reviewing progress and budget for existing NRSPs; developing and overseeing the process of review of proposals for revised and new NRSPs including selection of reviewers, establishment of protocols for the review, and development of the specific charges to the review panel; recommending to agInnovation the establishment of new NRSPs, continuation of revised NRSPs and continuation of existing NRSPs; advocating for the NRSP system by assuring a documentation system is in place including development of impact analysis; and assuring that the NRSP portfolio is monitored and is responsive to research support needs identified by agInnovation or the NRSP RC. The NRSP RC shall be subject to all procedures and policies in the current NRSP Guidelines. The Chair of this committee serves a two-year term and rotates among the four regions in the following order: agInnovation North Central, agInnovation West, agInnovation Northeast, and agInnovation South. The Chair also calls meetings to order as needed, drafts official correspondence on behalf of the committee, and arranges for hosting in-person NRSP RC meetings if they take place.

The voting members of the National Research Support Project Review Committee include:

- Chair
- One representative from each of the four SAES regions appointed by the regional association chair
- One representative from the ARD region, appointed by the ARD Chair
- Two Regional Executive Directors, one to serve as Executive Vice-Chair (when the chair is from their region) and one as member (from the region of the incoming chair)
- One representative from Extension appointed by the agInnovation Chair following the recommendation of the ECOP Chair
- One representative from NIFA following the recommendation of the NIFA Director
- One stakeholder representative, possibly a CARET representative, approved by the agInnovation Chair

Science and Technology Committee.

The Science and Technology Committee (STC) is charged with promoting and enhancing science and technology in the Land-grant university system. The committee will assist agInnovation to identify future directions and anticipate and respond to research needs and funding opportunities. The committee will

assist in linking science and technology programs to multistate and national research programs. The committee will recommend how the Section will respond to reports, recommendations, and planning documents from the national science community. This committee will provide guidance to the Section's strategic planning and priority setting. Lastly, the STC serves as the review team for the agInnovation Award for Excellence in Multistate Research and the agInnovation Agricultural Research Innovation Award of Excellence and selects the award winner on behalf of the Section.

The voting members of the Science and Technology Committee include:

- Chair
- Two representatives from each of the five SAES/ARD regions, one serves as Vice-Chair

Non-voting ex-officio members and non-voting liaison representatives include:

- ARS
- ERS
- NIFA
- Chair of the National Integrated Pest Management Committee (NIPMCC)
- Chair of the Social Sciences Subcommittee (SSSC)
- Other organizations including OSTP, other COPs, and other federal agencies as appropriate (i.e., NASA, EPA, DOE)
- Regional Executive Director who serves as the Executive Vice Chair

agInnovation Committee Reports

Reports (also called agenda briefs) from the agInnovation committees will be sought prior to business meetings of the Section or the Executive Committee. Such reports should include:

- The committee's actions and activities since the previous time the committee submitted a report. If applicable, the committee's plans for the next year or the committee's charge.
- Specific requests for approval of committee actions or recommendations by the Executive Committee or Section.
- Suggestions concerning the committee's future.
- Committee membership changes.

These reports may be delivered as agenda briefs at any of the Section or Executive Committee meetings and will be recorded in the meeting's minutes.

agInnovation Publications

Proposals to prepare publications by the Section, its committees and subcommittees, or any special group representing the Section, should be submitted to the Chair for approval in advance of preparation. Procedures for undertaking an agInnovation publication are outlined in "Guidelines" on the ESCOP website. The ESCOP website will serve as the repository for all ESCOP publications.

agInnovation Representation to Other Groups
agInnovation provides liaison representatives to a variety of other committees, agencies, associations, and organizations. These representatives are appointed by the Chair after consultation with the Executive Committee. Within APLU, these appointments include: ACOP, CARET, ECOP, and ICOP. Outside the APLU and upon the recommendation of members of agInnovation, the Chair appoints agInnovation members to organizations including but not limited to NCFAR and FFAR.

ARTICLE VII -- AGINNOVATION NON-PROFIT (501(C)(3)

Incorporation and Non-profit Status
On August 4, 2023, the state of Nevada certified that agInnovation filed the original Articles of Incorporation-Nonprofit and on May 15, 2024, the Internal Revenue Service determined that agInnovation nonprofit is exempt from federal income tax under the Internal Revenue Code (IRC) Section 501(c)(3).

Relationship between agInnovation and agInnovation Non-profit
In this relationship, the non-profit organization, operating as a 501(c)(3), serves as a supportive subsidiary of its parent organization, agInnovation. Much like a foundation assists a university, the non-profit focuses on support and enhancement of current business practices at the national level (e.g., offsetting the cost of professional development opportunities and accepting charitable donations) and aiding regional association efforts (e.g., engaging in meeting contracts, invoice payments, and accepting charitable donations). The intent of the relationship is to advance the strategic goals and initiatives of agInnovation and its regional associations. While the non-profit maintains its own governance and compliance with federal tax regulations, its primary role is to provide financial and operational support for activities that are not otherwise allowable or readily executed by the APLU (host of the agInnovation operating account) or the regional associations of agInnovation. Collectively, this ensures that the parent organization, agInnovation, has the resources needed to drive its mission and support its purpose as described in Article II -- Purpose.

ARTICLE VIII -- ASSESSMENTS AND BUDGETS

Assessments
Assessments that are invoiced through APLU shall be a single annual request and conducted in an orderly process in accordance with the following schedule:

- Referendum development shall be discussed at any agInnovation or Executive Committee meeting for presentation to the Section at the Fall agInnovation meeting.
- Written or electronic announcement of the intent to conduct a referendum shall be made to all Section members, once the referendum has been proposed.
- Referendum voting shall be by electronic balloting conducted after the Section members have received formal notification of the assessment

referendum. Thirty days' notice of the referendum is required prior to balloting.

- A two-thirds (2/3) majority of those voting is required for adoption of an assessment referendum. All member institutions will be assessed if the question passes.
- Invoicing by APLU of member institutions shall be initiated in the early calendar year following the referendum.
- Assessment payments are due by June 30 following the referendum.

Budgets

The budget of agInnovation coincides with the calendar year, coincident with the APLU assessment billing cycle and fiscal year.

The Finance Committee, in consultation with the incoming agInnovation Chair and Executive Vice-Chair shall draft and present a budget and budget narrative to the EC, for review and approval prior to presenting the budget to the Section during the l Fall agInnovation meeting. Budget voting will be conducted by electronic ballot in conjunction with the assessment referendum, no sooner than 30 days after the presentation of the budget to the Section. Approval of the budget is by a simple majority of those voting. At each subsequent Section or EC meeting during the year, the Finance Committee Chair will provide written or oral budget updates, whichever is most appropriate.

The agInnovation Chair may request the expenditure of assessed funds up to $5,000 per request (and no more than $20,000 total for all requests each calendar year) with authorization by a simple majority of the Finance Committee. Expenditure of funds greater than $5,000 and less than $20,000 in a single request requires the approval by simple majority of the EC. Expenditures greater than $20,000 require approval by simple majority of the Section.

ARTICLE IX -- QUORUM

For purposes of doing agInnovation or EC business, a quorum shall consist of a majority of the duly constituted voting membership at any officially called meeting for which a written notice and agenda are sent out at least one (1) week in advance of the meeting. A simple majority resolves all issues except amendments to the Rules of Operation and questions on financial assessments, which shall require a two-thirds majority of those voting.

For any face-to-face Section or EC meeting, during which a voting member is not in attendance, the voting member may designate a proxy, executed in writing via email, and received by the Executive Vice-Chair prior to the specific meeting. The proxy is valid for only the specified meeting. Only one actual vote is allowed per member, either as a regular voting member or by proxy.

ARTICLE X -- PARLIAMENTARY AUTHORITY

All agInnovation and EC meetings shall be held in an orderly and civil manner to

achieve an objective decision by those present and voting. Should there be a parliamentary challenge, it shall be answered by referring to the most current edition of Roberts' Rules of Order.

ARTICLE XI -- AMENDMENT TO RULES OF OPERATION

These Rules of Operation may be amended at any business meeting of the Section provided the proposed amendment has been shared (electronically or as hard copy) to all members at least 30 days in advance of the discussion of the amendment(s) at a duly called meeting of the Section. An amendment is passed by a two-thirds majority of those voting.

2025-2035 agInnovation Roadmap

A Critical Crossroads for the Nation:

The United States faces an urgent crisis that threatens its agricultural leadership, food security, and economic stability. Increased productivity through innovation has long driven U.S. agriculture's success, but declining public investment now jeopardizes this progress. Nobel and World Food Prize laureates warn that without substantial, strategic investment in agricultural science, the world risks a catastrophic "mismatch of global food supply and demand by mid-century."[1] Immediate action is essential to maintain U.S. competitiveness, preserve environmental resources, and ensure a safe, abundant, and affordable food supply for everyone.

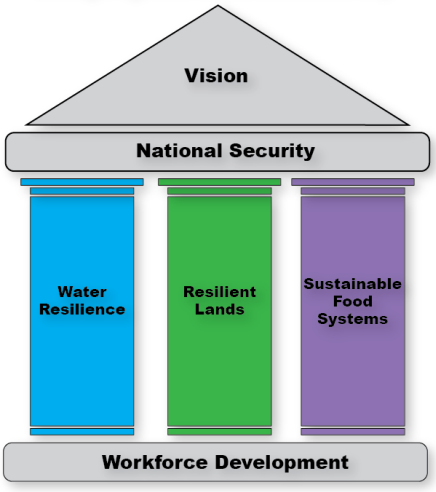
Public investment in agricultural research has plummeted by a third since peaking in 2002, reverting to 1970s levels by 2019. Meanwhile, competitors like China have surged ahead, surpassing U.S. funding of agricultural research and development. Despite delivering $20 in economic benefits for every $1 invested, federal funding has steadily declined, eroding the nation's ability to compete and innovate.[2] The stakes are too high to ignore. Global competition, geopolitical instability, pandemics, and extreme weather events are placing unprecedented strain on the nation's food systems, public health, and economy. The U.S. must act now to reinvest in food and agricultural innovation, ensuring a resilient and secure future for all.

An Outcomes-Driven Roadmap for the Nation:

To respond to the critical challenges our nation and agricultural sectors face, Land-grant University leaders developed a 10-year platform with clear goals and ambitious science outcomes aimed at addressing land resilience, water security, and sustainable food systems. This roadmap includes:

- Bold stakeholder-informed goals that enhance national security through strategic research and Extension.
- Innovative strategies to equip the next generation of agricultural professionals with the skills needed to address future challenges.
- Plans to foster strategic public and private partnerships to drive the adoption of innovative solutions.
- Innovative funding strategies and plans to ensure accountability and maximize impact.

"A world where people and the planet thrive through agInnovation and discovery"



The Role of Land-Grant Universities (LGUs):

LGUs are uniquely equipped to tackle today's challenges through their integrated mission of research, education, and Extension. Their work has both national and global impact, driving collaboration, scientific exchange, and resource sharing to address pressing agricultural issues. Agricultural Experiment Stations and Cooperative Extension Service provide critical leadership in developing stakeholder-driven, science-based solutions that enhance agricultural productivity, sustainability, public health, water resources, and environmental protection—while training future generations of agricultural leaders. Notably, LGUs and other non-federal institutions conduct approximately 70% of publicly funded agricultural research and development, highlighting their essential role in driving innovation.

A National Imperative: Public Investments in Agricultural Research, Extension, and Education:

Addressing the critical societal challenges facing the U.S. and the world demands a bold and immediate increase in federal investment in Land-grant University agricultural research, Extension, and education. Without significant funding over the next decade, the nation's ability to secure water resources, advance agricultural sustainability, and safeguard public health and the environment will be at serious risk. To build a resilient and sustainable future, it is crucial to prioritize and expand public support across a diverse range of grant programs. While USDA capacity and competitive grant programs—including research infrastructure—should be the primary focus, aligned funding opportunities across other federal agencies must also be leveraged to achieve the roadmap goals.

[1]Hunger's Tipping Point: An Urgent Call to Transform Food and Nutrition Security. https://www.worldfoodprize.org/en/laureates/laureate_letter/. World Food Prize Foundation.

[2]Investment in U.S. Public Agricultural Research and Development has Fallen by a Third Over Past Two Decades, Lags Major Trade Competitors. https://www.ers.usda.gov/amber-waves/2022/june/investment-in-u-s-public-agricultural-research-and-development-has-fallen-by-a-third-over-past-two-decades-lags-major-trade-competitors. USDA Economic Research Service.

Sustainable Food Systems

Overview:

United States food and national security depend on transformative innovations driven and delivered by Land-grant University research and Extension to build a resilient and adaptable food system. By advancing diverse approaches in production, processing, and distribution across regions, food supply chains in all agricultural and food sectors are strengthened, reducing the risk of disruptions. Delivering these innovations creates a food system that meets current needs while preparing for future challenges—ensuring it remains economically resilient, socially equitable, and environmentally sound, securing the nation's food supply for generations to come.

Outcome Goals and Impacts:

- Achieve national and local food security by producing 95% of our food domestically, increasing local and regional farm net incomes by 20%, and reducing food waste by 50%.
- Bolster supply chain resilience by strengthening local and regional markets to meet 15% to 25% of local demand, reducing the carbon footprint of food transportation by 25%, and expanding the bioeconomy.
- Reduce food insecurity by cutting the number of U.S. households experiencing low food security by 50%.
- Decrease diet-related diseases by 40% in all communities.
- Safeguard the food supply with a 50% increase in agricultural biosecurity through the creation and adoption of tactics to prevent foodborne contaminants, minimize plant and animal disease outbreaks, and manage pests from production to consumption.

Crosscutting Education Outcome Goal:

Workforce Development: Annually train an additional XX college students and XX 4-H members in food, agriculture, and renewable natural resources to meet the increasing demand for a skilled workforce. Recruitment efforts will focus on engaging youth and adult learners from diverse backgrounds and experiences.

Funding Requirement:

America's future prosperity relies on Land-grant Universities delivering groundbreaking discoveries for a resilient, sustainable tomorrow. Achieving this requires bold investments in USDA capacity and competitive funding and aligned federal programs.

Opportunities:

- **Promote innovation** across the agricultural continuum and advance strategies for regionally focused agriculture.
- **Enhance sustainability** by conducting cost-benefit, life cycle, environmental impact, and social cost-benefit analyses to assess improvements in local, regional, national, and international food systems and implement the results.
- **Reduce waste** by repurposing agricultural byproducts, extending product shelf life, implementing sustainable packaging, and educating stakeholders to minimize waste from field to retailer, thereby enhancing food security.
- **Encourage healthier lifestyles** by promoting science-based solutions, increasing access to affordable, nutritious, and safe food, and expanding education to support individuals in adopting healthier habits.
- **Ensure food safety** by developing and adopting new surveillance tools and approaches for early detection of pests, diseases, and pathogens across the food chain.
- **Improve crop and livestock genetics** to increase nutritional value and enhance resistance to pests and diseases in commodity crops, fresh fruits, vegetables, and livestock, and train local producers on deploying new technologies that take advantage of new and changing environments.
- **Adapt to change** by developing and deploying technologies and innovations that address environmental shifts and the evolving agricultural labor force.

Risks of Inaction:

Food system failures and disruptions threaten national security. Without increased investment, the U.S. risks falling behind in developing and delivering resilient, sustainable, and efficient farm-to-table practices. This stagnation could lead to increased food supply interruptions, food waste, food insecurity and hunger, foodborne diseases, economic instability, and a growing reliance on costly imports. Ultimately, a lack of innovation jeopardizes national security, food security, global economic competitiveness, health, and the stability of rural communities.

Resilient Lands

Overview:

As a global leader in agricultural production, the United States must strengthen the resilience of its agriculture and natural resources to better withstand the growing challenges of variable weather and extreme events. This requires production practices that regenerate soil, conserve water, and support biodiversity and community resilience. By adopting soil health principles, innovative technologies, and climate-resilient practices driven and delivered by Land-grant University research and Extension, we can safeguard natural resources and advance U.S. agriculture, enhancing resilience and bolstering national food and nutrition security.

Outcome Goals and Impacts:

- Enhance yield stability, improve soil health, boost energy efficiency, and increase soil carbon sequestration, while integrating renewable energy—together driving a 40% reduction in agriculture's carbon footprint through innovation and best practices.
- Drive innovation in nitrogen fertilizer use efficiency, minimizing nutrient runoff reduction, and optimizing crop nitrogen utilization while supporting producers in adopting sustainable management practices that collectively lower production costs and reduce greenhouse gas emissions by 35%.
- Foster new forestry land management, land cover, and harvesting approaches that promote healthy forests resilient to fire and extreme weather events, while increasing by 20% annually the number of forest owners with management plans to support healthy forests capable of absorbing 30% of economy-wide carbon dioxide emissions each year.
- Improve the adoption of practices to enhance the resilience of agriculture, rangeland, and forest ecosystems by developing adaptive land management plans to optimize production amid variable and extreme weather, reducing federal crop insurance costs by 25% ($3.5 billion).
- Improve infrastructure and emergency planning to reduce the devastating financial impact of extreme weather events on communities.

Crosscutting Education Outcome Goal:

Workforce Development: Annually train an additional XX college students and XX 4-H members in food, agriculture, and renewable natural resources to meet the increasing demand for a skilled workforce. Recruitment efforts will focus on engaging youth and adult learners from diverse backgrounds and experiences.

Funding Requirement:

America's future prosperity relies on Land-grant Universities delivering groundbreaking discoveries for a resilient, sustainable tomorrow. Achieving this requires bold investments in USDA capacity and competitive funding and aligned federal programs.

Opportunities:

- **Identify innovative agronomic practices** that enhance nitrogen use efficiency, soil fertility, structure, and resilience, while deepening our understanding of soil composition and processes.
- **Reduce barriers to collaboration** among farmers, land managers, communities, researchers, and policymakers to increase engagement and accelerate the adoption of grassroots innovations for adaptation and resilience.
- **Develop infrastructure and response plans** to improve the resiliency of rural and urban communities.
- **Develop accurate metrics** to quantify greenhouse gas emissions, carbon sequestration, water usage, and biodiversity, integrating long-term weather modeling and scenario simulations to strengthen the resilience of agriculture and natural resource systems.
- **Apply gene-editing techniques** to create climate-resilient crops and livestock (e.g., improved water use efficiency, drought tolerance, heat tolerance), and develop feeds to reduce methane emissions from livestock.

Risks of Inaction:

From escalating wildfires to droughts and floods, agriculture and our communities are already grappling with the effects of variable weather and extreme events. Without adaptation, these challenges will intensify, resulting in lower crop yields and greater harm to livestock, forests, fisheries, and communities. Biodiversity will decline as resistant weeds, pests, diseases, and wildfires become more widespread, disrupting ecosystems and agricultural productivity. The degradation of water, air, and soil quality will worsen, leading to severe consequences for food security, human and animal health, and environmental sustainability.

Water Resilience

Overview:

Reliable access to safe water is fundamental to agriculture, public health, and environmental sustainability, serving as a cornerstone for food and national security. Land-grant Universities must lead efforts to build water resilience through research, education, and Extension initiatives that boost productivity, enhance water efficiency, protect water quality, and promote conservation practices. As floods and droughts intensify, advancing innovative technologies and ensuring equitable access to water resources are critical. Land-grant Universities are uniquely positioned to drive focused efforts that address these pressing challenges, securing water resources for diverse landscapes and generations to come.

Outcome Goals and Impacts:

- Increase water use efficiency by 50% across food and agricultural systems, including production and processing.
- Reduce water quality impairments—such as elevated nutrients, pathogens, bacteria, sediment, and pesticides—by 40% within agricultural watersheds to protect domestic water supplies and public health.
- Strengthen agricultural system resilience by reducing production losses from waterlogging, flooding, and drought by 50%.

Opportunities:

- **Create a multi-year strategy** that integrates innovative practices, Extension programs, and water monitoring to inform policy interventions aimed at improving agricultural water use efficiency and utilization of nontraditional water sources, resilience to floods and droughts, water quality, accessibility, and ecosystem services.
- **Promote water-efficient, flood- and drought-resilient agricultural systems** by advancing best practices, tools, and Extension programs for improving crop and livestock productivity and water conservation, reuse, and quality.
- **Collaborate with communities and public officials** to develop strategies addressing water accessibility challenges.

Crosscutting Education Outcome Goal:

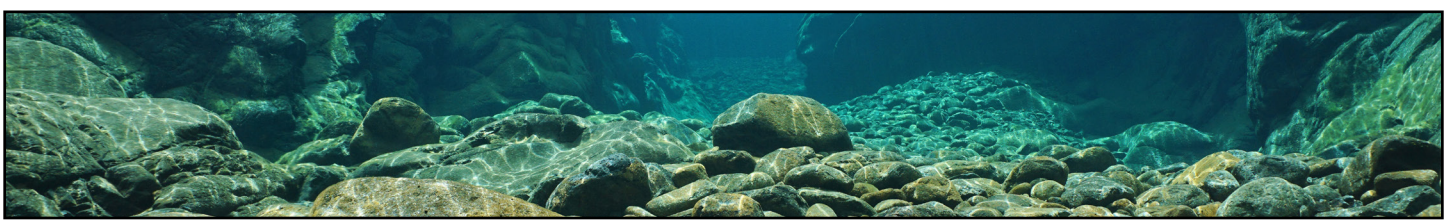
Workforce Development: Annually train an additional XX college students and XX 4-H members in food, agriculture, and renewable natural resources to meet the increasing demand for a skilled workforce. Recruitment efforts will focus on engaging youth and adult learners from diverse backgrounds and experiences.

Funding Requirement:

America's future prosperity relies on Land-grant Universities delivering groundbreaking discoveries for a resilient, sustainable tomorrow. Achieving this requires bold investments in USDA capacity and competitive funding and aligned federal programs.

Risks of Inaction:

Reduced water availability will impact drinking water supplies and household use in both rural and urban communities, while also constraining agricultural production. Declining river water levels will reduce navigable waterways, disrupt transportation, increase shipping costs, and weaken farmers' competitiveness in global markets. Furthermore, lower water levels in streams and lakes will harm wildlife, recreation, and tourism, placing additional strain on local economies and ecosystems. Increased groundwater withdrawal will worsen land subsidence, damaging infrastructure such as roads, bridges, levees, and water wells, which imposes significant financial burdens, reduces flood protection, and diminishes aquifers' capacity to store water. Simultaneously, the degradation of water quality for drinking, irrigation, and recreation will pose serious risks to public health.



Resilient Lands and Water

Overview:

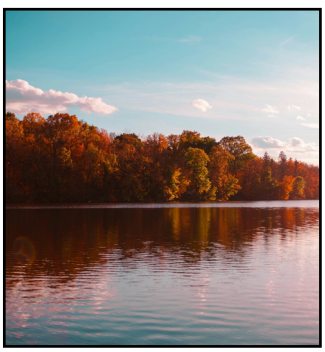
As a global leader in agricultural production, the United States must strengthen the resilience of its agriculture and natural resources to withstand the growing challenges of variable weather and extreme events. This requires practices that regenerate soil, conserve water, support biodiversity, and ensure community resilience. By adopting soil health principles, innovative water efficiency and quality practices, advanced technologies, and climate-resilient approaches—driven and delivered by Land-grant University research and Extension—we can safeguard natural resources, secure water supplies across diverse landscapes, and strengthen U.S. agriculture, enhancing resilience and bolstering national food and nutrition security.

Outcome Goals and Impacts:

- Enhance yield stability, improve soil health, boost energy efficiency, and increase soil carbon sequestration, while integrating renewable energy—together driving a 40% reduction in agriculture's carbon footprint.
- Drive innovation in nitrogen fertilizer use efficiency, minimizing nutrient runoff reduction, and optimizing crop nitrogen utilization while supporting producers in adopting sustainable management practices that collectively lower production costs and reduce greenhouse gas emissions by 35%.
- Increase water use efficiency by 50% across food and agricultural systems, including production and processing, and reduce water quality impairments by 40% to protect domestic water supplies and public health.
- Foster new forestry land management, land cover, and harvesting approaches that promote healthy forests resilient to fire and extreme weather events, while increasing by 20% annually the number of forest owners with management plans to support healthy forests.
- Improve the adoption of practices to enhance the resilience of agriculture, rangeland, and forest ecosystems by developing adaptive land management plans to optimize production amid variable and extreme weather, reducing losses from waterlogging, flooding, and drought by 50% and federal crop insurance costs by 25% ($3.5 billion).
- Improve infrastructure and emergency planning to reduce the devastating financial impact of extreme weather events on communities.

Crosscutting Education Outcome Goal:

Workforce Development: Annually train an additional XX college students and XX 4-H members in food, agriculture, and renewable natural resources to meet the increasing demand for a skilled workforce. Recruitment efforts will focus on engaging youth and adult learners from diverse backgrounds and experiences.



Funding Requirement:

America's future prosperity relies on Land-grant Universities delivering groundbreaking discoveries for a resilient, sustainable tomorrow. Achieving this requires bold investments in USDA capacity and competitive funding and aligned federal programs.

Opportunities:

- **Identify innovative agronomic practices** that enhance nitrogen use efficiency, soil fertility, structure, and resilience, while deepening our understanding of soil composition and processes.
- **Reduce barriers to collaboration** among farmers, land managers, communities, researchers, and policymakers to increase engagement and accelerate the adoption of grassroots innovations for adaptation and resilience.
- **Collaborate with communities and public officials** to develop infrastructure and response plans to improve the resiliency of rural and urban communities.
- **Develop accurate metrics** to quantify greenhouse gas emissions, carbon sequestration, water usage, and biodiversity, integrating long-term weather modeling and scenario simulations to strengthen the resilience of agriculture and natural resource systems.
- **Apply gene-editing techniques** to create climate-resilient crops and livestock (e.g., improved water use efficiency, drought tolerance, heat tolerance), and develop feeds to reduce methane emissions from livestock.
- **Create a multi-year strategy** that integrates innovative practices, Extension programs, and water monitoring to inform policy interventions aimed at improving agricultural water use efficiency and utilization of nontraditional water sources, resilience to floods and droughts, water quality, accessibility, and ecosystem services.
- **Promote water-efficient, flood- and drought-resilient agricultural systems** by advancing best practices, tools, and Extension programs for improving crop and livestock productivity and water conservation, reuse, and quality.

Risks of Inaction:

From escalating wildfires to droughts and floods, agriculture and our communities are already grappling with the effects of variable weather and extreme events. Without adaptation, these challenges will intensify, resulting in lower crop yields and greater harm to livestock, forests, fisheries, and communities. Biodiversity will decline as resistant weeds, pests, diseases, and wildfires become more widespread, disrupting ecosystems and agricultural productivity. The degradation of water, air, and soil quality will worsen, leading to severe consequences for food security, human and animal health, and environmental sustainability.