

# New York (Cornell University)

## Plan of Work for 2023-2027

Status: Final (Approved 9/28/2022)

### Executive Summary Overview

At Cornell University, Federal Capacity Funds are administered strategically to address a wide range of issues in New York State and beyond and foster the integration of applied research and extension programming.

Cornell University Agricultural Experiment Station (Cornell AES), New York State Agricultural Experiment Station (AgriTech at NYSAES), and Cornell Cooperative Extension (CCE) work collaboratively to determine planned programs that align with NIFA priority areas and direct funds to individual research and extension projects as well as projects that integrate these two domains. The approach used to integrate the work of the two experiment stations and CCE is designed to serve the citizens of New York State and improve the human condition through excellence in scholarship—linking research, non-formal teaching, and extension to "real life" challenges and opportunities. Director-level staff from Cornell AES, AgriTech at NYSAES, and CCE meet regularly throughout the year to discuss innovative approaches to relevant issues, research and extension projects, and new opportunities.

Extension and research leaders communicate with stakeholders, who provide input and inform priority-setting for use of Federal Capacity Funds. Stakeholders review proposals submitted through an internal competitive process by which faculty may apply for Federal Capacity Funds for projects with research and extension components matching current priorities. In addition, we have 36 active Program Work Teams comprised of extension educators, faculty, and stakeholders from across New York State who work together to develop, implement, and evaluate priority programs.

University-wide strategic plans have reinforced the land grant research and extension mission. The David M. Einhorn Center for Community Engagement advances Cornell University's mission through community-engaged learning—preparing and inspiring students, faculty, staff, and community partners to work together to solve the world's most difficult problems. The Center works closely with Cornell academic departments and Cornell Cooperative Extension to increase opportunities for community-engaged research, learning, and service projects. A liaison position is in place to strengthen the collaboration among Cornell students, faculty, and staff, and the CCE association offices across the state—thus supporting the development of new university links with association offices and facilitating opportunities for other extension units on campus to strengthen and diversify engagement in New York communities.

The College of Agriculture and Life Sciences (CALS) and the College of Human Ecology (CHE) continue to reinforce the bridges between science and practice, campus-community partnerships, and leadership and outreach. The CHE Bronfenbrenner Center for Translational Research is dedicated to expanding, strengthening, and accelerating the connections between research, policy, and practice to enhance human development and well-being. Both colleges along with the Cornell's Industrial Labor Relations

School and the Cornell University College of Veterinary Medicine are committed to research, teaching and extension, and the need to translate knowledge for public purpose.

Each core organization within our collective partnership is described below to better explain our unique system at Cornell University.

#### CORNELL UNIVERSITY AGRICULTURAL EXPERIMENT STATION (CORNELL AES)

Cornell AES – an integral part of three colleges – advances research on food and agriculture systems, the environment, applied economics, and community and individual development. By doing so, Cornell AES improves people’s lives and contributes towards Cornell’s Land Grant mission of discovery, engagement, and advancement of learning.

Cornell AES links Cornell's world-class research facilities with one of the nation's most comprehensive statewide cooperative extension systems. Through this engaged, interactive system we address pressing issues that directly affect the health and welfare of the state and beyond. Many of today's most urgent societal concerns – from childhood obesity to invasive species to global climate change – are not bound by state or national boundaries.

The station directly manages roughly 2,600 acres of farms, orchards, vineyards, and forests, and includes the university compost facility, eight farm operations, and over 127,000 square feet of plant growth facility space—providing critical research services to scientists. Every aspect of our operation - from staff development to forest management to field practices - is viewed through the lens of sustainability.

#### AGRITech AT NEW YORK STATE AGRICULTURAL EXPERIMENT STATION

Agriculture and food are multi-billion-dollar industries in New York and underscores the value that New York State Agricultural Experiment Station (NYSAES) brings to improving the health of the people, environment and economy of the state and beyond. Established in 1880, AgriTech at NYSAES in Geneva, New York develops cutting-edge technologies essential to feeding the world and strengthening New York State economies.

From developing safe and nutritious foods to pioneering means to preserve the environment, AgriTech at NYSAES serves millions of New York consumers, agricultural producers, food businesses and farm families throughout the state. AgriTech at NYSAES helps New Yorkers capitalize on new food and agricultural opportunities and is uniquely positioned to translate state-of-the art research into industry innovation and economic growth.

#### CORNELL COOPERATIVE EXTENSION

Cornell Cooperative Extension (CCE) extends Cornell University's land-grant programs to citizens all across New York State. With a presence in every county and New York City, CCE puts research into practice by providing high-value educational programs and university-backed resources that help solve real-life problems, transforming and improving New York families, farms, businesses, and communities.

County associations of Cornell Cooperative Extension work with their local boards, committees, and volunteers to influence decisions on program priorities and delivery. Our county extension associations and multi-county programs are separate 501(c) 3 organizations under the general supervision of Cornell University as agents for the state of New York. Extension works on and off-campus and engages a

program development process that relies heavily on community input to identify issues of local importance. Often research is informed by the two-way flow of information and experience. There is at least one CCE location in every county of New York State.

Facilities are fully equipped to deliver events and instruction through various modes including face to face hands-on workshops, webinars, online coursework, and on-demand videos to remote audiences. Additionally, we support 22 youth camp facilities running 21-day camp operations and ten resident camp operations.

For example, 2021 was an unprecedented year for families, communities, farms, and businesses. CCE staff throughout the state continued to work collaboratively to develop educational programs to build community support systems, empower youth, lift our elders, connect urban and rural communities to agriculture and healthy fresh foods, help local businesses thrive as they boost local economies, protect precious natural resources from a rapidly changing climate, support youth and family enrichment, and assist New York State residents in moving forward. During 2021, programs reached 900,000 participants directly through events and programs, including online programs and on-demand learning in efforts to meet community needs.

#### CRITICAL ISSUES INCLUDE:

##### AGRICULTURE AND FOOD SYSTEMS:

Projects support a NY food and agriculture industry that is diverse, sustainable, and profitable, and that produces a safe, reliable, and healthy food supply.

##### CLIMATE CHANGE AND SUSTAINABLE ENERGY:

Projects develop and/or implement practices to reduce or mitigate agriculture and food systems impacts from climate change. Projects may also focus on renewable energy production from agriculture or forest resources and energy conservation and renewable energy that benefits agriculture and food systems. Special consideration is given to projects that will develop implementable strategies, linked to agriculture and forestry, for meeting New York's Climate Act by reducing use of carbon-based fossil fuels, lowering greenhouse gas emissions, mitigating fugitive methane emissions within the agricultural sector, boosting energy efficiency, supporting renewable energy adoption, and maximizing carbon sequestration in New York's lands and forests.

##### NATURAL RESOURCES AND THE ENVIRONMENT:

Projects lead to improved use of the state's available land and natural resources, particularly for agriculture and forestry industries. Programs engage individuals and communities in conserving and sustaining the quality, diversity, and accessibility of New York's natural resources and environmental assets.

##### NUTRITION, FOOD SAFETY AND SECURITY, AND OBESITY PREVENTION:

Projects lead to childhood obesity prevention; improved youth, family, and community nutrition; and food security and food safety.

##### 4-H YOUTH DEVELOPMENT/CHILDREN, YOUTH, AND FAMILIES:

Projects focus on life skill development, STEM opportunities for youth, human development, and the quality of home and work environments. For Hatch or McIntire-Stennis supported research there should be a connection with agriculture and food industries.

#### COMMUNITY AND ECONOMIC VITALITY:

Projects empower entrepreneurship and workforce development, agriculture and food systems development, community and economic development, and community sustainability and resilience. For Hatch and McIntire-Stennis supported research these activities must have a connection to agriculture and food industries.

## Merit and Scientific Peer Review Processes

Cornell AES, AgriTech at NYSAES, and CCE work together on a process of merit review for applied research and extension projects, including review for integrated and multistate activities. Key elements of the process are described below and include statistics from the most current (2021) proposal cycle. Director-level staff from Cornell AES, AgriTech at NYSAES, and CCE meet regularly throughout the year to discuss relevant issues, research and extension projects, and new opportunities.

Submission and Review Process (Research, Extension, and Integrated Projects with Federal Capacity Funds) includes: principal investigators (PI's) are asked to consult program priorities (established as outlined in the stakeholder involvement section) and develop pre-proposals for new or revised projects funded by Federal Capacity Funds. PI's who meet eligibility requirements are generally allowed to submit one pre-proposal within each funding stream (e.g. Smith Lever, Hatch, Hatch Multistate), and do so through an online system, which tracks each proposal through its life cycle. Pre-proposals are reviewed for purpose and relevancy by external stakeholders, the PI's department/unit chair, Extension Program Associate/Assistant Directors, and the agricultural experiment station directors (Cornell AES and AgriTech at NYSAES). Reviews are submitted via a secure website.

FOR RESEARCH PROPOSALS: Agricultural experiment station directors make final determination of pre-proposals for development into full proposals. Full proposals are reviewed by two or three peer reviewers suggested by the PI and the PI's Department Chair. The final proposal is submitted to NIFA for approval. If approved by NIFA, Hatch funds are allocated to a unique account associated with their specific project.

FOR EXTENSION PROPOSALS: Extension Program Directors rank/recommend extension pre-proposals. Extension Program Directors meet with agricultural experiment station (Cornell AES and AgriTech at NYSAES) directors to discuss potential for integration of research and extension within extension pre-proposals. Extension Associate Director reviews proposals for equal program opportunity and affirmative action considerations. Extension Program Directors finalize Smith-Lever funding recommendations.

The review criteria includes review of alignment with NIFA priorities, alignment with internal priorities, anticipated significance of results relative to current priority needs or opportunities, scientific merit of objectives, clarity of objectives, and appropriate approach and methodology. The merit and scientific peer review process includes a review of: feasibility of attaining objectives, accomplishment during previous projects, research performance and competence of investigator(s), relevance of the proposed

work to state, regional, or national goals, impact on underserved audiences, level of research-extension integration, relevance to stakeholders, and strength of diversity statement.

For FY21 a total of 116 pre-proposals were submitted to Cornell AES, Agritech at NYSAES, and CCE of which 79 were internally approved for funding.

## Stakeholder input: Action Taken to Seek Stakeholder Input

Stakeholder input includes: use of media to announce public meetings and listening sessions, targeted invitation to traditional stakeholder groups, targeted invitation to non-traditional stakeholder groups, targeted invitation to selected individuals from general public, survey of traditional stakeholder groups, survey of traditional stakeholder individuals, survey of the general public, survey specifically with non-traditional groups, survey specifically with non-traditional individuals, and survey of selected individuals from the general public etc.

Gaining stakeholder input and encouraging stakeholder participation is a system-wide expectation of all levels and units. Across the system, all of the stakeholder participation methods listed are employed; no single unit uses them all. Cornell AES, AgriTech NYSAES and CCE leadership works to identify external stakeholders that provide guidance by reviewing funding support requests.

In addition, we have 36 active Program Work Teams (PWTs). PWTs are made up of extension educators, faculty, and stakeholders who work together to determine, develop and implement priority programs within PWTs and to advise research and extension leadership as needed. PWTs are expected to nurture research-extension integration, to encourage campus-field interactions and collaborations, to take multi-disciplinary approaches, to evaluate their efforts, and to involve their external members in all aspects of their work. For example, more than 1,500 individuals were involved in the work of these teams in 2021 – meeting, prompting dialogue, and inviting input..

Beyond this state-level stakeholder input structure/process, each of Cornell Cooperative Extension's county extension associations continue to work closely with local stakeholders via participation in their local governance structures, i.e. board of directors, and advisory committees. For example, in 2021, nearly 2,000 board and committee volunteers from diverse backgrounds participated and assisted in the direction, priority setting programs throughout the state, and over 12,600 volunteers assisted with program delivery adding to stakeholder involvement.

In local CCE offices stakeholder input is sought from all audiences including under-represented or under-served audiences. One of the strategies used for gaining input and developing working relationships with new audiences is by networking and partnering with organizations that do have existing and strong relationships with target groups. Local boards of directors and advisory committees also recruit an intentionally diverse membership representative of the people and the needs in the community.

Effective involvement of youth in program determination and implementation is a priority. Our local advisory committees are expected to include youth members as part of the needs assessment and decision-making structure. For example, in 2021, more than 890 youth reported serving in appropriate leadership, governance and program delivery roles statewide.

## Stakeholder input: Methods to Identify Individuals and Groups

Methods to identify individuals and groups include: use of advisory committees, use internal focus groups, use external focus groups, open listening sessions, needs assessments, participation records, and use surveys.

Across all levels of the system, all of the techniques listed were used; the mix of methods varied from site to site and program to program. All of our units are expected to have active and diverse advisory processes and to intentionally consider audiences not currently served. The activities of extension and research leadership, stakeholders, and PWTs are described in other questions in this section. Needs assessments, focus groups, and user surveys are conducted at the individual level of program units as well as in our PWTs.

As a method of tracking program needs and input received, CCE educators are expected to submit narrative reports of efforts including efforts intentionally planned to engage underserved populations. For example, for the 2021 reporting year, over 23% of the over 400 impact statements submitted exemplified programming intended for underserved audiences: 4-H programs reaching new audiences through afterschool programming and working with other organizations, food and nutrition programs helping mothers, families and food pantry clients to cook well balanced, affordable meals, parenting programs focusing on families in high stress situations, energy education work with low income families, resiliency and hope building strategies for families everywhere, and agricultural programs focused on working with farm workers to build skills, and ensure food safety practices.

## Stakeholder input: Methods for Collecting Stakeholder Input

Collecting stakeholder input includes: meeting with traditional stakeholder groups, survey of traditional stakeholder groups, meeting with the general public (open meeting advertised to all), meeting specifically with non-traditional groups, survey of non-traditional groups, meeting with invited selected individuals from the general public, and survey of selected individuals from the general public.

For example, all of the techniques listed were used in 2021 but methods varied site to site and program-to-program across the system. Structures and processes for aggregating data are addressed in this section. The most active data gathering occurs through local advisory bodies, PWTs, and within the proposal review process. Web-based surveys, interactive webinars, and responses to social media also provide programmatic feedback.

## Stakeholder input: A Statement of How the Input Will Be Considered

Stakeholder input is used in the budget process, and also used to identify emerging issues, redirect extension programs, redirect research programs, in the staff hiring process, in creating action plans, and in setting priorities.

The stakeholder input process for statewide program development jointly utilized by Cornell AES, AgriTech at NYSAES and CCE was established in 2001.

Stakeholders and PWTs work to improve program focus, relevance, and planning activities. Stakeholder input informs Federal Capacity Fund priorities and provides project-specific input on the relevance and value of the proposed work. Stakeholders provide input that informs decisions around funding of current extension and research projects, contributing ratings of perceived relevance to New York State

among other rating criteria. Statewide applied research and extension priorities are updated annually, communicated to faculty and staff, and used as a consideration in funding decisions.

County associations of Cornell Cooperative Extension work with their local boards, committees, and volunteers to influence decisions on program priorities and delivery. County extension associations and multi-county programs are separate 501(c) 3 organizations under the general supervision of Cornell University as agent for the state of New York. Their local plans of work are established under guidance of stakeholders in local advisory structures and governing boards and are in alignment with the statewide plan of work.

Stakeholders help to frame and shape plans of work, funding proposals, programs, and educational activities. System-wide Cornell Cooperative Extension Associations and PWTs have affirmed a commitment to the plan of work priorities and have elevated needs and opportunities to make use of campus resources for educational programs. Feedback from stakeholders is sought in a variety of ways, welcomed, and considered for planning.

## Critical Issues

### **4-H Youth Development/Children, Youth, Families**

Initiated on: Nov 26, 2019

State: New York

Term Length: Long-term (>5 years)

Projects focus on life skill development, STEM opportunities for youth, human development, and the quality of home and work environments. For Hatch or McIntire-Stennis supported research there should be a connection with agriculture and food industries.

Program emphasis areas include: Youth Competence, Youth Contribution, Youth & Volunteer Leadership, Parenting, Human Development (Individual and Community), Economic Security, and Indoor Environment.

Science Emphasis Area

Family & Consumer Sciences, Youth Development

### **Agriculture and Food Systems**

Initiated on: Nov 26, 2019

State: New York

Term Length: Long-term (>5 years)

Projects support a NY food and agriculture industry that is diverse, sustainable, and profitable, and that produces a safe, reliable, and healthy food supply.

Programmatic outcomes for this issue are organized around: Business Management, Agriculture/Natural Resources Enterprises Labor, Producer Alternatives/New Ventures, General Production Practices, Small Farms, Urban Agriculture, and Agricultural Environmental Management.

Science Emphasis Area

Sustainable Agricultural Production Systems

## **Climate Change and Sustainable Energy**

Initiated on: Nov 26, 2019

State: New York

Term Length: Long-term (>5 years)

Projects develop and/or implement practices to reduce or mitigate agriculture and food systems impacts from climate change. Projects may also focus on renewable energy production from agriculture or forest resources and energy conservation and renewable energy that benefits agriculture and food systems. Special consideration is given to projects that will develop implementable strategies, linked to agriculture and forestry, for meeting New York's Climate Act by reducing use of carbon-based fossil fuels, lowering greenhouse gas emissions, mitigating fugitive methane emissions within the agricultural sector, boosting energy efficiency, supporting renewable energy adoption, and maximizing carbon sequestration in New York's lands and forests.

Programmatic outcomes for this issue are organized around: Climate Change, Water Resources, Biodiversity, and Sustainable Energy and Energy Conservation.

Science Emphasis Area

Agroclimate Science, Bioeconomy, Bioenergy, and Bioproducts, Environmental Systems, Sustainable Agricultural Production Systems

## **Community and Economic Vitality**

Initiated on: Nov 26, 2019

State: New York

Term Length: Long-term (>5 years)

Projects empower entrepreneurship and workforce development, agriculture and food systems development, community and economic development, and community sustainability and resilience. For Hatch and McIntire-Stennis supported research these activities must have a connection to agriculture and food industries.

Program emphasis areas include: Community and Economic Development, Community Capacity Building, Community Sustainability and Resiliency Decision-Making, Land Use and Energy, Land Use and Public & Residential Spaces, Agriculture and Food Systems Development, Veteran and Military Families, Workforce Development, and Social Determinants of Health.

Science Emphasis Area

Education and Multicultural Alliances, Environmental Systems

## **Natural Resources and the Environment**

Initiated on: Nov 26, 2019

State: New York

Term Length: Long-term (>5 years)



Projects lead to improved use of the state's available land and natural resources, particularly for agriculture and forestry industries. Programs engage individuals and communities in conserving and sustaining the quality, diversity, and accessibility of New York's natural resources and environmental assets.

Program emphasis areas include: Environment & Natural Resources and Waste Management

Science Emphasis Area

Bioeconomy, Bioenergy, and Bioproducts, Environmental Systems, Sustainable Agricultural Production Systems

## **Nutrition, Food Safety and Security, and Obesity Prevention**

Initiated on: Nov 26, 2019

State: New York

Term Length: Long-term (>5 years)

Projects lead to childhood obesity prevention; improved youth, family, and community nutrition; and food security and food safety.

Program emphasis areas include: Healthy eating and Active Living, Food Resource Management, Decision Makers/Policy Education, Food Security and Hunger, Food Safety and Consumers, Food Safety and Producers/Processors/Retailers/Food Service Providers, and Food Safety and Decision Makers.

Science Emphasis Area

Family & Consumer Sciences, Food Safety, Human Nutrition