Building Partnerships between the University of New Hampshire and the USDA Agricultural Research Service

Anton Bekkerman
Director, NH Agricultural Experiment Station
Associate Dean for Research, College of Life Sciences and Agriculture
University of New Hampshire
anton.bekkerman@unh.edu

Background and Problem

Increased weather variability and uncertainty have already led to devastating losses—\$20 million due to 2023 freeze events—for New Hampshire's small-scale farmers who produce high-input cost, high-value fruits and vegetables (NH has approximately \$450 million in annual fruit and vegetable sales from 1,267 farms that employ 4,800 people). Managing New Hampshire's crop production within protected-agriculture systems can significantly reduce Granite State farmers' future risk exposure, protecting not only their economic stability but also the resilience of local and regional food chains.

In many states, these large-scale and regional challenges are often taken on through well-established partnerships between land-grant institutions and the USDA Agricultural Research Service (ARS). New Hampshire, however, is one of only three states where there is no direct and formal partnership between the state's land-grant university (UNH) and the USDA ARS. Additionally, while the USDA ARS has researchers working on protected agriculture topics, these are either sporadically dispersed across the United States or are focused on large greenhouse spaces. In contrast, small and medium-sized farms in the Northeast and other cooler-climate regions more commonly use simpler, cost-effective protected agriculture technologies, such as high tunnels.

Opportunity

UNH has a long history of research on a spectrum of protected agriculture technologies. It was the first university in the Northeast to introduce high tunnel technology to the region and begin agricultural research and extension on food production using that technology. Today, UNH continues to prioritize protected agriculture research and outreach.

Establishing a formal USDA ARS relationship with the UNH would create a place-based discovery and innovation hub for protected agriculture on small and medium-sized farms. The collaboration would increase resources for UNH, increase research grant writing capacity and graduate student training, and significantly close the gap between UNH and USDA partnerships. Moreover, it would enable USDA ARS scientists to be embedded in communities where this research is most impactful as well as disseminate the knowledge across its vast network of ARS researchers regionally and nationally.

The partnership would help generate information about cost-effective food production in protected agricultural systems, pest and disease management, and new crop varieties specific to protected ag systems. This would benefit ARS germplasm databases by adding unique, new

germplasms specific to these systems. The partnership would also more directly connect UNH scientists, research farms, and research infrastructure with ARS researchers, enabling them to hit-the-ground-running in collaborating and developing high-impact science.

Plan and Progress

Establishing a direct relationship that requires USDA ARS resources includes several key components: (1) interest and engagement by USDA ARS leadership; (2) interest and engagement by potential collaborators and scientists at UNH; and, ultimately, (3) guidance and allocation of resources from the U.S. Congress. Achieving these components requires a plan that relies heavily on building relationships, trust and collective goal setting toward a unified end.

Over the past year, I was able to accomplish numerous aspects of building the networks and relationships toward the three components:

- Built internal buy-in from scientists who will be key to collaborating with USDA ARS.
- Established connections and developing interest from USDA ARS. This included conversations with deputy administrators, director of finances, and national program leaders in related areas at the USDA ARS.
- Hosted federal delegation staffers at UNH agricultural research sites and facilities to demonstrate the opportunities and need of a UNH–ARS partnership in protected agricultural research and outreach.
- Worked with UNH government affairs office to develop and submit language to New Hampshire Senators and Representatives for programmatic appropriation requests in FY25.
- Worked with the State of New Hampshire to appropriate funds for constructing three new research high tunnels and double the post-harvest storage capacity at the UNH horticultural research farm. This infrastructural investment is key to ensuring that industry-leading research can be conducted.
- Had numerous conversations with staffers on the U.S. Senate agricultural subcommittee for the Senate Finance Committee. These relationships are critical to engaging the U.S. Congress in supporting and potentially investing resources toward the USDA ARS forming a partnership with UNH.

More progress is needed, and the foundations that have already been built will be key to the success of the continued efforts.

FSLI Impact

One of the biggest takeaways from FSLI is the focus on building and strengthening interpersonal relationships and networks. Key FSLI lessons that directly helped in my project included the building of coalitions and goals around a common vision; navigating internal (UNH) and external (USDA ARS and Congressional) structures, processes and politics; and, given the increasingly uncertain and evolving nature of federal agencies and federal funding landscape, the importance of finding calm and opportunities in times of uncertainty and crisis.

Perhaps most importantly, one throughline that resonated particularly with me and this project was the need and value of maintaining meaningful and strategic work amid the many, many daily administrative tasks.