

I appreciate the opportunity to provide NIFA with input on research priorities in food and agriculture. I serve as the Executive Director for a consortium of 14 research stations in this region. Collectively, I represent the Northeastern Regional Association of State Agricultural Experiment Station Directors, NERA for short. These stations are primarily located on the campuses of the northeast's Land-grant universities. Ironically, this listening session is in the one state in the NE that has two experiment stations, one that is in association with the University of CT and one that is associated with the state of CT. All these stations serve NIFA as hubs in a nation-wide agricultural R&D enterprise that is the envy of the world. You just heard from Ali Mitchell who represents the NE Extension Directors, the engagement arm of the R&D enterprise.

I share this background as context for the reflections and recommendations that I'll make.

The Northeastern Ag Experiment Station directors want to ensure that the unique characteristics of agricultural systems of the northeast are well represented in NIFA's approach and grant funding portfolio. The Northeast is home to over 66 million consumers on roughly 5% of the US land. Hence, the NE has a very large portion of the US population living in close proximity to the rural/urban continuum. Clearly, there is a need to promote agricultural literacy across this continuum if we are to exploit the potential opportunity this proximity poses.

Not surprisingly, there is a great diversity of agriculture in the Northeast that involve food and non-food systems. NERA encourages NIFA to make available grants that support these diverse agricultural activities, from small to large, food to the green industry. Further, funding opportunities that promote sustainable practices, from field to table, are essential in solving our food and natural resource challenges.

Very little grant funding exists to promote agricultural entrepreneurship at the rural-urban interface in the Northeast. We encourage NIFA to fund integrated programs that lead to measureable impacts in agricultural entrepreneurship, agricultural workforce development and agricultural prosperity.

Final reflection: The NERA Executive Board believes that relocating NIFA away from the capitol region will have profoundly negative effects on the health of the national Land Grant University system. The day to day interaction between NIFA and other federal agencies will disappear and reduce the capacity for interagency partnerships that align and strengthen outcomes for NIFA stakeholders. As Ali shared, meetings are easy to schedule over the web, relationships are not.

Those are the reflections, here are NERA's recommendations on the questions posed by NIFA.

Greatest challenge?

Sustainable prosperity in our agricultural communities. What are the attributes of sustainable prosperity? A trained workforce, good-paying jobs, adaptive agricultural strategies for coping with global climate change (farming smarter), economic growth and development, and quality of life. What do we know? Producers are aging and agricultural communities are growing smaller as rural populations are out-migrating to seek employment opportunities in urban areas. The ag/rural communities have been some of the hardest hit by the opioid crisis. Consider for a moment that of the top 10 states leading the nation in drug overdose mortality rate, 8 are in the northeast. The magnifying glass is on the Northeast and we have the intellectual horsepower to address this challenge. However, putting that intellectual capital to work requires investment. To meet this challenge, NIFA must invest in funding opportunities that support sustainable agricultural systems. We appreciate that funding has been dedicated to this program and to a program in resilient agroecosystems. However, further investment in

programs that promote entrepreneurship, financial/business planning, and agricultural innovation that exploit the opportunities on the rural urban continuum are necessary to meet this essential challenge.

What's the breakthrough?

Producing more with less. In making this recommendation, we're seeking reduction of inputs: water, fertilizer, pesticides, fuels, energy and human-power across all agricultural sectors. This puts a spotlight on local food systems, an area of specialty and opportunity for the Northeast. To achieve this breakthrough, innovation is required. Investment in programs that explore agricultural innovation is necessary, as is investment in programs for specialty crops, the sweet-spot for NE food systems. We appreciate that NIFA has exempted 1862 Land-grant institutions, including state agricultural experiment stations from the cost sharing requirement for the Specialty Crops Research Initiative. Many thanks.

We also believe that to do more for less will require the full participation of NIFA's Land-grant partners: researchers, educators, and extension specialists. We support NIFA engaging us with innovative opportunities that seek an integrated approach.

Top priority?

Adequate and appropriate support for the nation's #1 agricultural R&D enterprise, the state agricultural experiment stations and our counterpart in program delivery, cooperative extension. The support that's needed breaks down into three buckets: capacity funds, the Agriculture and Food Research Initiative (AFRI), and infrastructure. Of these three, infrastructure poses the largest challenge. It's no secret that across the county, research laboratories are aging while scientific instrumentation and technologies are advancing at light speed. While I have no silver bullet to resolve this, having access to bricks and mortar funds would significantly assist the Northeast, home to some of the oldest Land-grant institutions in the country.

The capacity funds provided by NIFA to Land-grant universities and institutions constitute the capital that makes us competitive. These capacity funds represent the foundational partnership between the federal government and the Land-grant system. This allows us to meet local and regional needs and to be responsive to our unique constituencies. The capacity funds also provide the support to maintain the intellectual capital within our network of agricultural research scientists and Extension professionals enabling sustained effort to address stakeholder needs. Importantly, for every federal capacity fund dollar invested, each state in the Northeast contributes equally to the endeavor, minimally 1:1.

AFRI, NIFA's competitive grant initiative, funded in FY '18 at \$400 million, is authorized at \$700 million. I appreciate that NIFA does not have control of appropriations. Conversely, I'm confident that NIFA is supportive of AFRI funded at its fully authorized level.

What is the value of publically funded ag R&D? The Economic Research Service has demonstrated in a number of studies that public investment in agricultural research has resulted in large economic benefits yielding as much as 20% in annual return rates. However, the public investment in agricultural R&D has fallen in the past decade. The sobering element of the disinvestment will not be felt in the short-term; the decline in investment will have the most pronounced effect in the long-term reflecting the lag between experimental innovation and application of a technology or strategy. We value the partnership that our NE Land-grant universities and state ag experiment stations have with NIFA. We look forward to applying the strength of the partnership to secure the resources to ensure that our stakeholders, producers, processors, entrepreneurs, and consumers have access to a robust, innovative, and responsive regional R&D enterprise.