Everyone eats food. From birth until death, food is one of the continuous threads that bind all humans together. Everyone needs food, and the majority of the food we eat comes directly from plants or from animals that predominately eat plant-based diets. That is to say, almost all food derives from plants grown on farms.

Unfortunately, the average American is no longer intimately connected to agriculture. In the U.S., we have gone from more than 70% of the workforce working directly in agriculture in the 19th century to less than 2% now. As agricultural jobs have moved to other industries, populations have clustered more and more in urban environments, with 80% of the U.S. now living in urban centers. To put it simply, most people no longer live near agricultural production and just don’t see it.

But there is strong resurgent interest in food and agriculture driven primarily by the desire to eat healthfully and social concerns related to perceptions of agricultural production. In the country’s urban centers, this has manifested in renewed interest in agricultural systems, with particular emphasis on farm-to-table restaurants and urban farming examples including rooftop and hydroponic agriculture. While it is unlikely that urban-based agricultural systems will replace the extensive system of agriculture we have in place anytime soon, this urban interest in food and agriculture nonetheless represents an opportunity to reverse the decades of waning visibility of the agricultural system to the end consumer (i.e., eaters). What are desperately needed are urban nodes of science-based education that can harness urban interest in agriculture and provide accurate information about the food system to an interested public.

Re-Connecting the Public with Agriculture

Botanical and public gardens, which are present in virtually every urban center and enjoy more than 70 million visitors per year, represent a tremendous opportunity for making the connection between the public and agriculture. A recent article in *Nature Plants* (Miller et al., 2015) argues specifically that botanical gardens represent an already existing and massive infrastructure that is well positioned to play a leading role in bringing agriculture into urban centers. Many botanical gardens have the ability to perform plant research, offer formal and information education, provide interpretation of plant uses, and showcase the beauty of plants. Furthermore, botanical gardens are experts at presenting scientifically based information about plants as exciting narratives in places of stunning beauty.

With this possibility in mind, the U.S. Botanic Garden has joined with the ASA, CSSA, and SSSA to imagine what agricultural offerings at botanical gardens may look like. In July of 2014, a group of more than 30 scientists from the Societies met in Washington, DC, with botanical garden educators and leaders from a number of prominent gardens to begin charting a course forward. This meeting informed the current U.S. Botanic Garden exhibit *Exposed: The Secret Life of Roots*, which presents plants of the American tallgrass prairie, including associated agronomic species. More than 700,000 people will view this exhibit before it closes in October, providing an important opportunity for urban populations to experience the agricultural ecosystems and crops that support a large portion of our agricultural system. Furthermore, the U.S. Botanic Garden and Societies continue to work together to thresh out priorities for botanical gardens to further engage urban populations on agriculture. Leading gardens, including the New York Botanical Garden, Chicago Botanic Garden, Missouri Botanical Garden, and many others, have joined in this effort.

The U.S. Botanic Garden exhibit *Exposed: The Secret Life of Roots* presents plants of the American tallgrass prairie, including associated agronomic species.
others are already developing robust agricultural programs, often focused on urban agriculture.

These botanical gardens have decades and even centuries of experience in relating to people about plants. The growing conversations about food is a great entry point to reconnecting people with plants and the agricultural systems that provide them. With a strong nexus to plant conservation and horticultural outreach, botanical and public gardens are viewed as trusted experts about plant-based topics. Given the sometimes polarizing debate about agricultural practices, trusted interlocutors such as botanical gardens must provide spaces where the public will be open to science-based agricultural information. Botanical gardens have many of the skills and experience necessary to engage the public in agricultural issues, but greater involvement from the agricultural community will be required to more fully represent the country’s vast and diverse agricultural system through botanical garden displays and programs.

Reach Out to Your Local Garden

The agricultural community has a tremendous opportunity to engage the public through these gardens. We encourage agricultural scientists and practitioners who are dedicated to a robust conversation about the future of food to reach out to local botanical and public gardens. With more than 500 gardens throughout every region of the country, the possibilities for constructive community engagement about agriculture, even in the urban centers far from most farm fields, is staggering. Given the enormity of the challenge of feeding our increasing populations in a changing climate, an informed public is necessary in order to achieve the societal buy-in necessary to generate the support the agricultural community needs to advance its goals of a sustainable future food system. Botanical gardens may represent the best path towards generating a more agriculturally literate and supportive public, capable of engaging as citizens in democratic decision-making affecting agriculture. All that is required is to continue strengthening relationships between gardens and the greater agricultural community. Such efforts are investments that will pay dividends by presenting an accurate depiction of our present and future agricultural systems to the many Americans living in urban environments who are hungry to understand the future of food.

References


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