Crop Science Special Issue: Connecting Agriculture, Public Gardens and Science

Ari Novy and Tara Moreau

WHY CONNECT AGRICULTURE, PUBLIC GARDENS AND SCIENCE?

North America’s agricultural and natural landscapes are vital to feeding humanity—they are home to many populations of important food plants and their wild relatives. Climate change is projected to significantly impact the agricultural sector and any efforts to adapt food and agriculture systems today will benefit us both now and in the future. A key strategy for adaptation is to safeguard biological diversity by protecting plant genetic resources of crops that can be utilized for current and future breeding efforts. However, public efforts to preserve crop diversity cannot be achieved without robust societal engagement, which is made more complicated by demographic trends over the last century which have seen North American populations convert from largely agrarian to highly urbanized (ex., 80% of the US population is now living in urban neighborhoods). The researchers who contributed to this special issue understand the need to conduct cutting edge research about crop diversity while directly engaging a largely urban public. The need to engage urban audiences in agricultural research has never been greater. Urban populations are the largest ultimate consumers of food and are often home to policy makers. Many of the agricultural researchers and farmers of tomorrow will necessarily come from urban locales. We must do everything we can to serve urban markets at all stages of agricultural production, from (agro)industrial growth to consumer choice.

This special issue of Crop Science published proceedings from this landmark symposium, Crop Science Special Issue: Connecting Agriculture, Public Gardens and Science, jointly run by the Alliance of Crop, Soil and Environmental Science Societies (ACSESS) and the American Public Gardens Association (APGA). The symposium was hosted by the World Food Prize Foundation and the Greater Des Moines Botanical Garden in Des Moines, IA in April 2019. It drew over 100 participants from botanical/public gardens, 18 colleges and universities, and four federal agencies, as well as professionals from science centers, research organizations, restoration groups and other non-governmental organizations.

Through scientific presentations, keynotes, panel discussions, networking, participants advanced two key themes: (i) crop diversity, with a focus on crop wild relatives, and (ii) public engagement in agriculture education, with a focus on inclusion and capacity building.

In Khoury et al. (2019), a collaborative road map to conserve, use and raise awareness of crop wild relatives in North America is outlined with five priority areas for action. These priority areas were co-created with international input across organizations and sectors to

A. Novy, San Diego Botanic Garden, 230 Quail Gardens Rd., Encinitas, CA 92024 USA; T. Moreau, Univ. of British Columbia Botanical Garden, 6804 SW Marine Dr., Vancouver, BC V6T 1Z4 Canada. Received 1 Oct. 2019. Accepted 14 Oct. 2019. *Corresponding authors (anovy@sdbgarden.org; tara.moreau@ubc.ca).