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August 23, 2016

Jo Handelsman and Elizabeth Stulberg
Office of Science and Technology Policy
Eisenhower Executive Office Building
Washington, DC 20504

RE: An Agricultural Workforce for the 21st Century

Dear Dr. Handelsman and Dr. Stulberg,

Please accept the following comments submitted on behalf of the Entomological Society of America (ESA) in response to the July 21st email on the future of the agricultural workforce in the 21st century. With more than 7,000 members affiliated with educational institutions, scientific agencies, private industry, and government, ESA is the largest organization in the world serving the professional and scientific needs of entomologists and individuals in related disciplines. Entomologists contribute to the nation's agricultural enterprise through research, teaching and service related to: sustainable management of insect pests of crops, natural plant communities, and livestock; protection and production of beneficial insects and other arthropods that provide useful goods such as honey and animal feed; and ecosystem services such as pollination, nutrient recycling, and biological control.

Addressing Workforce Shortages

- Entomological Foundation
 - ESA is closely aligned and partnered with the Entomological Foundation (EF), an organization dedicated to encouraging science literacy through the use of insects in the classroom. The EF aims to create mechanisms and opportunities for educating young people about insects, increasing their exposure to our science and raising the profile of entomology as a possible career option for today's students.
- Fostering Students
 - ESA has a long history of active engagement with students. Approximately one-third of ESA's Annual Meeting attendees are students at the graduate or post-graduate level, and there is a position on every ESA committee and board for a student representative. Each year, these efforts provide hundreds of students with the training and experience necessary to work effectively in a leadership capacity in their profession throughout their careers.
- Medical Entomologist Needs
 - In March 2016, ESA co-hosted an entomology leadership summit with our Brazilian counterpart Society in Maceió, Brazil. One of the outcomes, as

identified by the participants, is a stark need for more medical entomologists. This finding was also identified during a May 2016 Integrated Tick Management Summit in Washington D.C., co-hosted by ESA, the IPM Institute and the Centers for Disease Control and Prevention. This urgent need will be discussed further at a September entomological leadership summit, with the goal of developing an action plan.

Broadening and Diversifying the Agriculture Workforce

- Diversity and Inclusion Committee
 - In 2015, ESA founded a committee that is charged to ensure that qualified scientists of all backgrounds have an equal opportunity to participate fully in the Society and the discipline. The committee has developed a diversity statement, approved by ESA's Governing Board, and is now working on a review of the Society's programs and activities.

Making Investments in Education and Outreach Programs

- ESA Science Policy Fellowship
 - In 2014, ESA formed a new program to develop a generation of entomological scientists who are visible and effective advocates, specifically for the discipline of entomology, and more broadly for the scientific community. Fellows are selected for two-year terms, and during the program they learn about how science policy and science funding decisions are made at the federal level. In addition, they engage with lawmakers, legislative staff, and agency leaders in Washington, DC. For more information about the program, please visit <http://entsoc.org/sci-pol/esa-science-policy-fellows-program>.
- ESA Liaison to the Office of Pesticide Programs at the Environmental Protection Agency
 - In late July, ESA announced the selection of a new Subject Matter Expert (SME) to serve as liaison to the Environmental Protection Agency (EPA) Office of Pesticide Programs (OPP). Dr. Allan Felsot, a professor and extension specialist based at Washington State University's campus in Richland, WA, will serve as the Society's liaison for a three-year term. The EPA-OPP liaison acts as a scientific advisor on a broad range of issues related to pesticide safety regulations, efficacy testing of arthropod control methods, and integrated pest management in urban, medical, and agricultural contexts. Dr. Felsot's position will help bridge the gap between research entomologists, the Society, and EPA as a regulatory agency. For more information on the EPA-OPP SME, please visit <http://entsoc.org/epa-reports>.
- ESA Education and Outreach Committee
 - ESA has a long history of supporting science communication and education, and has a committee dedicated to support this outcome. Members of the committee come from across the breadth of the science and support national and regional efforts to promote science literacy.


Supporting Academic Research and Training

- Early Career Professionals Committee (ECP)

- Throughout the past decade, ESA has acted on a strong commitment to support the next generation of scientists in a number of ways, including placing ECP members on key committees and in leadership positions, maintaining steep discounts for them on membership and meeting attendance fees, and encouraging broad participation in the professional association for the discipline at minimal expense to the young scientist.

Thank you for asking for our input on the important task of anticipating the needs of the agricultural workforce in the 21st century; if we can provide any additional information, assist the Office of Science and Technology and Policy, or help in any other way, please don't hesitate to ask. We will make every effort to provide you with whatever you may need.

Sincerely,

A handwritten signature in black ink, appearing to read "May B. Berenbaum". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

May Berenbaum, PhD
Swanlund Professor and Head,
Department of Entomology,
University of Illinois at Urbana-Champaign
2016 President, Entomological Society of America