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WEED SCIENCE SOCIETY OF AMERICA
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Dear Foundation for Food and Agriculture Research (FFAR),

The Weed Science Society of America appreciates this opportunity to provide insight and advice for FFAR. We believe that synergies between FFAR and weed science can help solve pressing agricultural challenges like pollinator and monarch butterfly protection, biofuels production, herbicide resistance, and organic weed control. FFAR can guide research on weed biology, ecology, genomics, and physiology of weedy traits that will be essential for developing these environmentally and economically sustainable solutions.

Weeds are the most impactful, persistent, and economically damaging pests across America. Seventy percent of the pesticides applied in the United States are herbicides, representing an annual cost of $7 billion for farmers and land managers. Without effective weed management, crop yield losses range from 20 to 40 percent, and many horticultural crops would be a total loss.

Herbicides have been the principal means of weed control in agricultural systems because they are both economical and effective. However, widespread evolution of herbicide-resistant weeds threatens the utility of these tools. Many weed species are already resistant to multiple herbicide sites of action, and economical, alternative tools for their control have yet to be identified. The increased use of tillage for weed control has increased erosion and has become one of the major areas of concern in many waterways throughout the United States. Solutions to the expanding herbicide resistance problems will require new weed management technologies combined with new community-based approaches from the social sciences. This will only be attained through multidisciplinary efforts in diverse production systems.

We believe FFAR can also help propel initiatives such as an area-wide weed management program for downy brome (a.k.a. cheatgrass) that has destroyed sage grouse habitat and fueled wildfires in the West that currently costs our nation billions of dollars every year. The blueprint for such a strategy is already there: TEAM Leafy Spurge area wide management program.

FFAR can also help leverage investments in aquatic weed research. The impacts of aquatic weeds affect almost all segments of our society. Aquatic weeds threaten our food security by impeding water movement in canals and irrigation ditches, increase flooding risks, reduce water quality, limit important water sources for livestock and wildlife, increase the incidence of human and animal disease by harboring disease vectors, and impede the movement of commercial navigation vessels.

Attention to these priority areas will require a concerted and collaborative effort among weed management stakeholders. The majority of weed science research funding comes from non-federal sources, such as industry, commodity groups, NGO's, and state DOTs and DNRs. Collaborations between FFAR and these non-federal entities can increase research by leveraging existing resources. Our current technological capabilities are not keeping up with the evolving weed issues and therefore the leveraging of research funding for new solutions in weed management is critical in maximizing crop yields and preserving natural areas for future generations. It is incumbent upon all of us to seek both applied and fundamental solutions through FFAR's strategically funded research.

Sincerely,

Dr. Dallas Peterson
President
Weed Science Society of America