

The **American Phytopathological Society (APS)**, founded in 1909, is the premiere educational, professional and scientific society dedicated to the promotion of plant health and plant disease management for the common good. The Society, representing the interest of five thousand scientists whose pivotal research advances the understanding of the science of plant pathology and its application to plant health, appreciates the opportunity to submit comment on research and related areas which we feel should be given priority at this stakeholder meeting. The APS is willing to provide science based information to stimulate an increase in funding to support research and education objectives.



The APS has identified three areas where additional funding is needed:

Enhance Protection and Safety of the Nation's Agriculture and Food Supply: The U.S. agricultural enterprise is vulnerable to intentional pathogen or pest introductions by those intending harm. The APS and several partner professional societies have proposed the creation of a National Center for Plant Biosecurity (NCPB) (www.apsnet.org/members/ppb/PDFs/CenterProposal.pdf) to facilitate strategic planning and ensure the coordination of National activities to maintain the security of our crops, forests, rangelands and other plant resources. The NCPB, envisioned at the level of the Secretary of Agriculture, will facilitate planning, communication and coordination among government entities, academia, and private industry to assure a strong and coordinated infrastructure for agricultural security. CSREES's continued support for the National Plant Diagnostic Network (NPDN) is critical to maintain the Nation's ability to recognize and manage new plant pests. One priority for U.S. research and education must be to protect our production systems and thereby maintain consumer confidence in the safety of our food. Investments in basic research are needed to open new directions for applied research, including greater use of plant biotechnology and plant and microbial genomics for prevention, detection, forensics, or recovery from a bioterrorist attack on our plant resources. (Additional information can be found at www.apsnet.org/members/ppb/natcenter.asp).

Genomics of Crop Plants and Plant-Associated Microorganisms: Key to continued production of healthy crop plants is the knowledge of how these plants interact with the diverse groups of plant-associated microbes that can cause or prevent plant diseases or enhance plant growth. To intervene in disease and understand the basis of biological control or symbiotic relationships, coordinated genomic analyses of both the crop plants and their interacting microbes are essential. Funding to date has provided valuable sequence data for a few crop plants and plant-associated microbes. However, limited funding has forced the agencies to either focus on increased analysis of one or a few plant species, and to restrict funding for functional genomics of agriculturally-important microorganisms to alternate years. To better exploit the sequence information already in hand, and to fully understand genomic functions involved in plant-microbe interactions, consistent and increased funding focused on genome analysis of crop plants and plant-associated microbes is needed. (Additional information can be found at www.apsnet.org/members/ppb/plantassocinitiative.asp)

Protect and Enhance the Nation's Natural Resource Base and Environment: A key component of increasing environmental quality is to fund research that will support the economic, biological and social aspects of the agricultural enterprise at a systems level. While USDA-CSREES recently has increased funding for systems level agriculture, biologically based pest management (BBPM), an environmentally benign and integrated activity, has not received sufficient priority. Biologically based pest-management will contribute to environmental stewardship, enterprise profitability, and rural development that is paramount for the wide utilization and adaptability of sustainable environmental practices in the myriad of agricultural production operations in the United States. However, development and implementation of BBPM requires significant research and education of producers for adoption. Thus, we recommend that, programs in the NRI soliciting integrated projects be expanded with emphasis on the development of BBPM. (see www.apsnet.org/members/ppb/PDFs/Priorities.pdf)

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