SPECIALTY CROPS RESEARCH TEAM (SCRT)
CSREES PLANT AND PEST BIOLOGY WORKSHOP

Fresh and processed products derived from Specialty Crops make vital contributions to human health and well-being, and collectively constitute the economic backbone of many rural economies across the U.S. Domestic market value of Specialty Crops surpasses $45 billion annually, around half of total national crop production value. Exports of specialty crops products are increasing, with global per-capita production and consumption rapidly expanding. The tremendous contribution of Specialty Crops to human health and well-being is dramatically seen in the recent revision of the food pyramid – three of the five recommended food groups are built around Specialty Crops.

However, Specialty Crop industries face serious challenges, including:

- Increasing competition from lower cost foreign producers
- Declining availability of labor, land, water and energy resources
- Persistent, serious pressure from insect and plant diseases
- Escalating costs and management complexity from government regulations
- Greater demand for improved food safety

Unfortunately, these challenges are increasing, while research and extension capacity has decreased dramatically, thus threatening the stability and economic viability of individual producers, processors, rural economies, and national food security.

In response to these threats specialty crop industries have developed several industry-specific initiatives to define the strategic means to mitigate the impact of these growing threats. These national initiatives, supported by Congress and coordinated by an industry-USDA partnership, have identified critical research and extension priorities. Recently, these specialty crop industries have initiated a process to identify common research and extension priorities among the crop-specific initiatives to focus scarce research and extension resources more effectively. This unified approach among specialty crop industries will provide input and guidance to federal agencies about problems that are common to specialty crop industries, so federal resources can be organized in a more efficient manner to address common problem areas and provide problem solving solutions to the greatest possible spectrum of specialty crop industries. This approach, should enable specialty crop industries to produce and process their crops more efficiently and sustainably, and provide consumers with a safe, secure, and affordable food supply.

To this end, a broad coalition of crop organizations have aligned and formed the Specialty Crop Research Team (SCRT), to promote unity and clarity around technical needs, to foster a multi-disciplinary and multi-institutional approach to priorities at a national level. We seek a balance of research and extension components, with measurable impacts. Below, we highlight our common strategic priorities in Plants and Pest Biology.

I. Understanding and improving quality

- Provide researchers and industry end-users with innovative analytical tools and technologies, including those that enable quality evaluation of existing and new breeding materials and permit optimization of cultivation and downstream production processes
- Provide growers with a broad range of disease-free varieties, rootstocks and clonal materials which have been evaluated for regional suitability and quality attributes
- Expand genomics, genetics, and breeding capabilities within Specialty Crops to improve health, consistency, performance, and access to a wider selection of superior, well-characterized plant material for commercial plantings and product development
- Emphasize genomics efforts based within and among botanical families: Ericaceae, Juglandaceae, Rosaceae, Rutaceae, Vitaceae, including sufficient and sustained funding for genomics databases

II. Consumer perceptions, nutrition, and community enhancement

- Understand the role of Specialty Crops in improving human nutrition and health

III. Processing and Production Efficiency

- Develop physiological understanding and application to permit production systems that complement automated cultivation, handling, and processing
- Develop practices, solutions and systems to mitigate the adverse impact of pests on the national specialty crop industry

IV. Sustainable practices

- Understand and improve the nutrient/mineral cycle, soil health, and quality of the crop production environment
- Understand and enhance the agro-ecosystem and the interaction of the industry with the local area to contribute to improved quality of life in rural communities

Specialty Crop Research Team Members

Almond Board of California
California Citrus Research Board
California Tree Fruit Agreement
National Berry Crop Initiative
National Grape and Wine Initiative
National Tree Fruit Technology Roadmap