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## UNITED FRESH FRUIT AND VEGETABLE ASSOCIATION RESEARCH PRIORITIES

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### **Research Priorities To Enhance The Nations Nutrition and Health**

- 1) Phytonutrient Affects on Human Health
- 2) Improved Fruit and Vegetable Flavor and Taste (Consumer Satisfaction)
- 3) Improved Fruit and Vegetable Quality Segregation Technologies
- 4) Improved Produce Genotypes

Fruits, vegetables and nuts are a significant dietary source of many essential nutrients critically important to human health and research has demonstrated their positive health benefits. Greater understanding of the short- and long-term health benefits derived phytonutrient consumption, the underlying mechanisms for the health benefits, and how production and postharvest handling practices may affect phytonutrient compounds is critically needed. Improved genotypes and postharvest handling practices must also be developed to assure that consumers consistently enjoy the experience of eating these foods.

### **Research Priorities To Enhance Economic Opportunities For Agricultural Producers**

- 1) New Products (e.g. fresh-cut/value added/convenience items)
- 2) New Markets
- 3) Byproduct Utilization and/or Mining Phytonutrients

Fruit and vegetable marketers require more “proof of concept” research to assure development of new products as it is well established that increased availability and accessibility to convenient fresh fruits and vegetables will result in increased consumption. Fruits and vegetables are a rich source of phytonutrients and there is great potential for byproduct recovery of phytonutrients to benefit human health.

### **Research Priorities To Enhance Protection and Safety of the Nation's Agriculture and Food Supply**

- 1) Microbial Ecology of Human Pathogens in Agricultural Environs
- 2) As of Yet Unidentified Sources of Contamination
- 3) Background Micro flora Suppression of Human Pathogens
- 4) Intervention Strategies to Reduce the Potential Risk of Human Pathogens on Specialty Crops
- 5) Good Agricultural Practices (GAPs)

Human pathogens in agricultural/farm environs are typically present in low numbers and low frequency, making their investigation difficult. Hence there is a significant lack of information regarding human pathogens on the farm and in postharvest specialty crop environments. Understanding the microbial ecology, persistence, niches, harborages, life cycle, and factors affecting survival and growth of human pathogens in an agricultural/farm environment, including water and soil amendments, is essential to developing and implementing intervention and control measures to reduce the risk of contaminating specialty crops. Currently, Good Agricultural Practices (GAPs) rely on management practices which prevent contamination of specialty crops on the farm and during postharvest handling operations. Therefore, identifying of as-yet unidentified sources of contamination is important to assist producers and handlers in reducing risk. Water and soil amendments are two known significant potential sources of human pathogens in the farm environment. A greater understanding is needed to assure that soil amendments and agricultural water are of sufficient microbial quality for their intended purpose is needed to assure the safe and wholesome production of specialty crops.

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