

Critical Issues Identified in USU's FY2020 NIFA Plan of Work

Global Food Security and Hunger

The first Critical Issue is to enhance global food security through sustainable agricultural practices. To feed growing populations, we must develop stress-resistant crops and ensure the overall productivity of livestock. Discoveries that result in heat, drought, and saline resistant plants will allow farmers to remain competitive in world markets, while contributing to farm production throughout the world. Future investigations will range from traditional crop and livestock breeding to newly mastered genomics. Crops will be produced which rely less on manmade inputs like fertilizer and fuels, and more on gene manipulation. These improved plants and must be field-tested. Animals must be made more efficient in the use of forage resources.

Climate Change and Management of Natural Resources

The Western U.S. contains states with vast tracts of public land surrounding smaller areas that are privately owned, mostly adjacent to water. The natural resource base of any economy is critically important to the economic and aesthetic environments for that area. Changes in the natural resource base brings variation in the underlying economic and social structure. Critical issues affecting natural resource characteristics are found in soils, water, range, forest, animals, and air resources. The proper and efficient management of these resources is a primary concern, particularly for environments as varied and unique as in the West. This Critical Issue involves improving decision-making relative to environmental stewardship in an economic, social, and biological sense.

Nutrition and Health

There has been a crisis of nutrition in the U.S. even though there have also been large food surpluses. There is a need to provide better nutrition information on various types of food to enable consumers to make wise choices. As the relationships among diet, health, and disease prevention have become clearer, nutrition and the promotion of healthy eating behaviors and lifestyles have received increased attention. Many teenage mothers are found in the low-income brackets and they can benefit from participating in various nutrition programs as well as those eligible for Food Stamp Assistance. The priorities for this Critical Issue are to expand nutritional research and education, and to enhance nutrition behavior.

Food Safety

The food production complex is extraordinarily large within the US, offering the largest variety of food of any nation on earth at the lowest relative cost. With the large variety of food products, food safety is a critical issue that must be dealt with by producers, processors, distribution systems, and the final consumer. Food borne illness is a major cause of death, claiming the lives of our most vulnerable populations: the elderly, young, pregnant women, people with impaired immune function and the chronically ill. It also causes needless lost time from productive roles in the workplace. Improper food handling and preparation of food in food service establishments and in the home contribute to food borne illnesses.

Healthy, Financially Secure Families

Utah is in the top 5 of the U.S. states with bankruptcy and much more research and education need to be done in order to free the state's consumers from this trap. Because of Utah's typically larger family size, the amount of income available for basic family needs slips below the mean for the rest of the United States. Utah families already face high debt loads leading to bankruptcy, low savings, and the lack of liquid assets. Hence, a priority for this Critical Issue is to enhance individual and family resource management.

Youth Development

Youth issues are paramount in a state with higher than average birth rates. As the number of youth grows, more research and education is needed in identifying factors that influence growth and maturation. A significant priority for this Critical Issue is to discover added methods for encouraging positive youth development.

Community Resilience

The existing conflicts between private- and public-land owners and urban-rural pressures are likely to be exacerbated over the next 5 years as alternative uses of public and private lands increase and urban encroachment continues to extend into rural areas of the state and region, resulting in a decline of available open space. The economic viability of many rural areas is also in jeopardy. Economic development through business retention and expansion activities need to be implemented in struggling communities.