



National Institute of Food and Agriculture

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INSTITUTE OF FOOD PRODUCTION AND SUSTAINABILITY

OVERVIEW

THE INSTITUTE OF FOOD PRODUCTION AND SUSTAINABILITY (IFPS) enhances food security through productive and sustainable agricultural systems. We enable a new era of agricultural science to boost U.S. agricultural production while increasing efficiencies. The research, education, and Extension projects we fund improve the ability to meet growing domestic and global food demand while reducing

agriculture's environmental footprint. In addition, IFPS sponsors new discoveries while using local knowledge and support systems to fight hunger.

Worldwide changes in agriculture focus not only on efficient food, fiber, and fuel production, but also on improving public health, social well-being, and our environment. Public values and a globalizing economy have broadened the goals of agricultural research and education

to center on increasing food availability through sustainable food production and decreasing food insecurity.

IFPS employs novel approaches, partnerships, and alliances in research, education, and Extension to develop sustainable strategies to feed our world. Our programs improve the well-being of people through scientific innovation, formal and informal education, and the delivery of improved agricultural products.

Estimated global population by 2050.

By then, we will need to double agricultural output to feed our world.

The number of global citizens who will go to bed hungry tonight.

DIVISIONS

DIVISION OF AGRICULTURAL SYSTEMS

This division addresses human interaction between science, technology, and agriculture. Programs integrate the biological, physical, environmental, and socio-economic factors essential to successful production and viable rural communities. We help producers understand new techniques and help them take advantage of opportunities to create and sustain agricultural enterprises. We seek to improve economic opportunity and the quality of life for both producers and consumers, and enhance understanding and appreciation of the nation's agricultural systems.

DIVISION OF ANIMAL SYSTEMS

This division promotes production systems that are efficient, economically competitive, environmentally sound, and socially acceptable. We advance high-quality, relevant animal research, education, and Extension programs. Our focus is not only on maximizing production, but also on outcomes of this production. We provide healthful diets for consumers; ensure quality, quantity, and diversity of animal products; improve security, safety, and resilience of the food supply; and improve competitiveness and sustainability of animal agriculture.

DIVISION OF PLANT SYSTEMS-PRODUCTION

This division addresses the dual challenges of food security and sustainability by working with researchers, educators, and outreach partners to improve food, fiber, and fuel production systems and enhance landscapes and gardens. We partner with universities, the private sector, and federal agencies to promote programs that address U.S. and global food security and sustainability challenges. This innovative work takes place in classrooms, laboratories, fields, greenhouses, and communities throughout the United States at scales ranging from individual gene function to entire agricultural systems.

DIVISION OF PLANT SYSTEMS-PROTECTION

This division supports researchers, educators, and Extension partners as they develop and communicate strategies to control invasive and endemic pests in a sustainable manner. These efforts help maintain healthy crops and ecosystems and help producers adjust to restrictions in chemical pesticide use. We and other federal partners respond to critical pest issues and support ongoing efforts by the agricultural community to identify priorities for future work.

INSTITUTE OF FOOD PRODUCTION AND SUSTAINABILITY (CONT'D)

MAJOR PROGRAMS AND INITIATIVES

PRODUCING FOOD FOR A HUNGRY WORLD

IFPS invests in research, education, and outreach to help beginning farmers and ranchers, rural communities, and producers and processors of all sizes. Our programs in conventional and organic agriculture focus on sustainable systems-based approaches to livestock and crop production. Sustainable agriculture research and education programs help farmers and ranchers adopt practices that are profitable, environmentally sound, and good for communities. Our research supports a wide range of diverse food and feed products—from specialty crops and cereal grains to milk, meat, eggs, and ornamental agricultural products. Research and Extension activities draw from the scientific disciplines of genetics and genomics, breeding and reproduction, entomology, pathology, nutrition, health, welfare, engineering, and economics. We mobilize and engage scientists from diverse disciplines to bring solutions to challenges of agricultural production.

PROTECTING OUR FOOD AND LIVING ENVIRONMENTS FROM PESTS AND DISEASE

Together with our university partners, IFPS plays a major role in helping to monitor, prevent, and respond to invasive and endemic pest and disease outbreaks. Through our national plant and animal diagnostic networks, we address disease transmission and detection, plant and animal disease diagnosis, the delivery of pest and disease information to producers, and information outreach to the public. Regional pest management efforts are coordinated through our programs, which are underpinned by research and Extension. Whether it's understanding the genetic basis of pest and disease resistance, creating lesson plans to educate high school students on avian influenza, or providing a framework to synchronize federal and state efforts, we provide capacity through various programs to respond to pests and disease.

IMPROVING BIOSECURITY AND EMERGENCY PREPAREDNESS

One of our nation's leading concerns over the past decade has been biosecurity and emergency preparedness related to our food system. To address the threat of outbreaks of foreign and emerging diseases, we focus on research efforts that solve problems, lower institutional barriers, and allow for rapid response to critical issues. Educational and Extension programs related to agrosecurity and disasters are fundamental to preparedness. We continually strengthen international engagement to design relevant programs that benefit producers and policy makers and fill gaps in domestic availability of high-impact tools for things such as vaccine and diagnostic development.

FOSTERING FUTURE GENERATIONS OF SCIENTISTS AND PRACTITIONERS

The next generation of agricultural scientists will provide the leadership and innovation to solve food security challenges. IFPS administers various fellowships and experiential learning opportunities for pre- and post-doctoral students. We invest in curriculum development to build leadership capacity and improve learning and teaching. In response to critical animal health and food-system safety needs, we also provide assistance with loan repayment to help offset education costs incurred by veterinarians who wish to practice in underserved communities.

CONTRIBUTING TO ECONOMIC AND SOCIAL WELL-BEING

Food security is dependent on individuals and organizations working together to develop solutions to related economic and social issues. IFPS pursues technical solutions to the challenges facing agriculture and the environment while addressing the interactions of people and communities. We support the economic well-being of farmers and rural communities through research, education, on-farm safety, and health as well as enhanced quality of life for people with disabilities in agriculture. As a key player in NIFA's small business research programs, we support the development of new technologies and the innovative application of new or existing technologies. We advance economic opportunity for farmers and rural communities through programs that address the unique needs of small and medium-sized farms, entrepreneurship, and research on markets and trade.

CONTACT INFORMATION

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