<u>Biosecurity to Protect America's Food and Agricultural System</u>

1. Tactical Sciences refer to a complementary set of programs that offer the tools to protect the integrity, reliability, sustainability, and profitability of the U.S. food and agriculture system against threats from pests, diseases, contaminants, and disasters.
2. NIFA is committed to supplying a toolkit of science-based tactics readily available to help prevent, prepare for, detect, respond to, and recover from known and potential pests, diseases, and other natural disasters. NIFA's Tactical Science priorities are focused in three areas:
    a. Detection and Diagnostics (National Plant Diagnostic Network, National Animal Health Laboratory Network)
    b. Regulatory Systems Support (IR-4, Food Animal Residue Avoidance Database (FARAD), and Minor Use Animal Drugs Program [MUADP])
    c. Deployment of new crop and animal production and protection technologies and management systems (Crop Protection and Pest Management, IR-4, MUADP, and Extension Disaster Education Network (EDEN))
3. NIFA is working with a number of stakeholders to seek a shared vision for strengthening our tactical sciences investments.
    a. On February 15 and 16, NIFA partnered with the University of Maryland-College Park to host a conversation on creating such a shared vision. Over 70 interested stakeholders representing academia, federal and state government, commodity groups, and other non-governmental organizations. Participants considered several issues, including:
        i. What economic, political, social, technological, and scientific trends/forces will impact security of the American food system enterprise in the next 10 years?
        ii. What efforts are currently working related to the Tactical Sciences, and where are opportunities for improvement?
        iii. What should a successful approach and strategy for the Tactical Sciences look like moving forward?
    b. Over the course of FY 2017, NIFA will continue to work with these stakeholders and others to increase awareness of the need to create a stronger and more effective Tactical Sciences portfolio to ensure the biosecurity of America's food and agricultural system.

Tactical Science Program Descriptions

Crop Protection/Pest Management Program (CPPM) supports projects that develop and deliver tools and tactics to reduce losses caused by crop and animal disease pathogens, insect pests, and weeds.

Extension Disaster Education Network (EDEN) links extension educators from across the U.S. in various disciplines, enabling them to share science-based educational resources to reduce the impact of natural and human-made disasters.

Food Animal Residue Analysis Database (FARAD) provides guidance on safe intervals between animal drug administration and consumption of foods derived from livestock, and offers rapid response assistance during food contamination emergencies.

National Animal Health Laboratory Network (NAHLN) develops and increases capabilities and capacities of a U.S. veterinary diagnostic laboratory network to support early detection, rapid response, and appropriate recovery from high-consequence animal diseases.

National Plant Diagnostic Network (NPDN) identifies and detects crop pests and pathogens of concern to prevent new outbreaks.

Minor Crop Pest Management Program (IR-4) funds laboratories to test the safety of specialty crop pesticides and register new tools to protect specialty crops.

Minor Use Animal Drug Program (NRSP-7) informs appropriate drug use (tolerances, exemptions, and registrations) for minor animal species and minor uses in major animal species, and conducts studies to support FDA drug approval.