LabNet
AgConnect

AgConnect

A web-based tool to rapidly determine laboratory capacity during a disease outbreak.

THE CHALLENGE

The United States Department of Agriculture established the National Animal Health Laboratory Network (NAHLN) as part of a national strategy to coordinate and network the diagnostic testing capacities of the Federal veterinary diagnostic laboratories with the extensive infrastructure of state and university veterinary diagnostic laboratories.

This network enhances the nation's capacities for early detection of, response to and recovery from animal health emergencies - including bioterrorist events, newly emerging diseases and zoonotic animal disease agents that threaten the nation's food supply and public health. A standardized capacity estimation tool can facilitate preparedness and also identify rate limiting steps in laboratory processes and assist in modification of the NAHLN activation plans.

THE SOLUTION

The Institute for Infectious Animal Diseases, in partnership with the Texas Center for Applied Technology, a part of the Texas A&M Engineering Experiment Station, developed AgConnect® LabNet, a web-based platform for NAHLN to facilitate rapid laboratory capacity estimation in order to allow for more informed decision-making with respect to distribution of samples for testing, prioritization of laboratory resources and determination of rate limiting steps. This software system allows for estimating diagnostic testing capacities through automated determination of supply and equipment usage, personnel requirements and process limitations for individual and overall NAHLN laboratories. Promoting more efficient communication between the laboratories and the NAHLN Coordinator allows the NAHLN Program Office more insight into laboratory capacity prior to and during an outbreak. These enhanced communications and capacity estimates allow for facilitating distribution of samples to promote efficient diagnostic testing in an outbreak.

The AgConnect® LabNet system and generated data can be used to improve knowledge of individual and network diagnostic testing capacities, aid in the modification of the NAHLN activation plan, assist in the prioritization of additional resources needed and serve as a critical tool for simultaneously managing a large number of diagnostic tests.

Allows for automatic detection of:

- Diagnostic testing capacity estimates
- Supply and equipment usage
- Personnel requirements
- Associated costs
- Process limitations for communication between the laboratory and the NAHLN coordinator
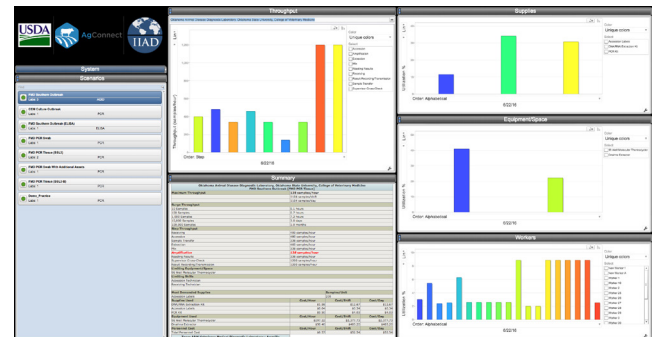
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