

Introduction

The U.S. Department of Agriculture (USDA) is asking the Secretary's Advisory Committee on Animal Health for feedback on the value of mandatory reporting of SECD and the financial support from the USDA for disease testing. In addition, USDA is seeking guidance from the Committee on future control strategies for SECD.

Background

The detection first of porcine epidemic diarrhea virus (PEDv) and then porcine deltacoronavirus (PDCoV) in 2013 and 2014 respectively, were the first incursions of these viruses into the United States. These viruses resulted in extraordinary morbidity and mortality of young pigs and had significant effects on the pork industry. The collaborative response of industry, private veterinarians, State animal health officials and staff from USDA APHIS resulted in a much improved understanding of these viruses and the disease caused by them and by 2015 a dramatic reduction in pig losses.

In June of 2013, the National Animal Health Laboratory Network (NAHLN) laboratories began sharing PEDV testing information in a voluntary effort to assess and understand the emerging PEDV situation. In June 2013, at the request of the laboratories, the USDA NAHLN program office started facilitating the aggregation and reporting of these PEDV testing data to provide national-level information to key stakeholders. NAHLN laboratories provided weekly data files of PEDV PCR test result records, including results from each sample tested and, if available, associated data on collection site State and animal age. USDA compiled these data into a standardized dataset for analysis and distributed weekly reports to key stakeholders summarizing the PEDV laboratory testing information. The coverage of the NAHLN data was the participating laboratory's service areas, which covered nearly all of the U.S. Laboratory participation in this voluntary data sharing effort was unprecedented and increased from five laboratories in June 2013 to 14 laboratories by May 2014.

Through spring of 2014, the number of PEDV positive laboratory accessions increased from fewer than 50 per week to over 300 per week, increasing stakeholders' concerns about

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the PED epidemic. NAHLN data were not sufficient to determine the number or location of infected premises/herds because the laboratory data did not include information to identify individual premises/herds. For example, if a laboratory reported 100 positive accessions (cases) from State X, it was impossible to know if this represented 100 repeated tests on a single infected herd or 100 different infected herds in that State. Location of herds could be roughly determined by the Collection Site State reported by the lab, but this was not reliable because laboratories sometimes did not have information about the State where the sick animals were located and instead reported the State of the corporate headquarters, submitting veterinarian, or billing address. These factors created a frustrating situation where even with a large volume of testing data pointing to dramatic increases in the number of reported PEDV laboratory accessions, there was not sufficient information available to adequately characterize and assess the extent of the PEDV outbreak or develop options for disease control.

In response to these events and concerns from trade partners and other stakeholders, USDA issued a Federal Order (FO) on June 5, 2014 that mandated reporting of SECD cases. The FO resulted in several changes to NAHLN data. First, a new Laboratory Messaging System (LMS) data management system was launched to store and manage all PEDV testing data. LMS provided laboratories with an option to transmit testing data electronically to USDA by using HL7 electronic result messaging technology. As of March 2015, five NAHLN laboratories were electronically messaging their PEDV test results to USDA rather than providing weekly data files. Another major change after the FO was the requirement of premises identification data with laboratory records. However, even with this requirement, PEDV laboratory test records often did not include premises identifiers because of individual laboratory policies or because premises information was not provided by submitters. Inclusion of national premises identification data with testing records slowly increased from 40% in June 2014 to nearly 90% by October 2014. Lastly, as part of the FO, NAHLN laboratories were reimbursed for SECD testing costs with the savings for this testing passed along directly to producers.

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As of April 2, 2015, the reporting required through the FO has resulted in the confirmation of PEDv in over 1100 premises and PDCoV in over 50 premises (see table below).

| NEW THIS WEEK (MAR 22 –28, 2015) | PEDV | PDCOV | DUAL INFECTION^a |
|--|-------------|--------------|-----------------------------------|
| New Confirmed Positive Premises This Week | 46 | 4 | 0 |
| New Presumptive Positive Premises This Week | 1 | 1 | 0 |
| CURRENT PREMISES WITH SECD POSITIVE STATUS | | | |
| Total Premises with Confirmed Positive Status This Week | 1,103 | 51 | 45 |
| CUMULATIVE SINCE JUNE 5, 2014^b | | | |
| Confirmed Positive Premises | 1,169 | 57 | 47 |
| Presumptive Positive Premises | 416 | 28 | 27 |
| Confirmed Positive Premises that have Attained Negative Status (i.e., premises that changed from positive to negative status) ^c | 54 | 5 | 1 |

^aDual infection indicates premises with both PEDV and PDCoV

^bCumulative data includes current premises with positive status and premises that were positive but have acquired negative status

^cSee Notes section of this report for details about premises statuses

Committee Deliberations

The USDA requests that the committee:

1. Provide feedback on the value of the federal mandatory reporting requirements and the information that is shared with stakeholders from the data collected.
2. Provide feedback on the value of USDA support of diagnostic testing for SECD.
3. Provide guidance on the future of SECD control and the role of the USDA in those efforts.