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Swine Enteric Coronavirus Disease (SECD) Situation Report

December 5, 2014

Analysis of data received as of 4:30 pm EST, November 29, 2014

NOTE: *This is the second Indiana SECD Situation Report released by the Indiana State Board of Animal Health. Since the last report was released, BOAH has been working diligently to refine further our data and correct discrepancies between BOAH and USDA data, as necessary. Unless otherwise noted, any upward or downward revision of the data presented in this report, as compared to the data in the previous report, is the result of new information for an existing accession, NOT new cases or reports of disease.*

This report provides an update of Indiana activities under the USDA Federal Order, *Reporting, Herd Monitoring, and Management of Novel Swine Enteric Coronavirus Diseases*, effective June 5, 2014. The Indiana State Board of Animal Health (BOAH) will issue this report on a biweekly basis to summarize data on all porcine epidemic diarrhea virus (PEDv) and porcine delta coronavirus (PDCoV) testing conducted at the Purdue University Animal Disease Diagnostic Laboratory, the Iowa State University Veterinary Diagnostic Laboratory, and the University of Minnesota Veterinary Diagnostic Laboratory. These laboratories conduct an estimated 99% of all SECD testing for Indiana premises and send these results directly to BOAH. Any information derived from other sources is clearly identified and explained.

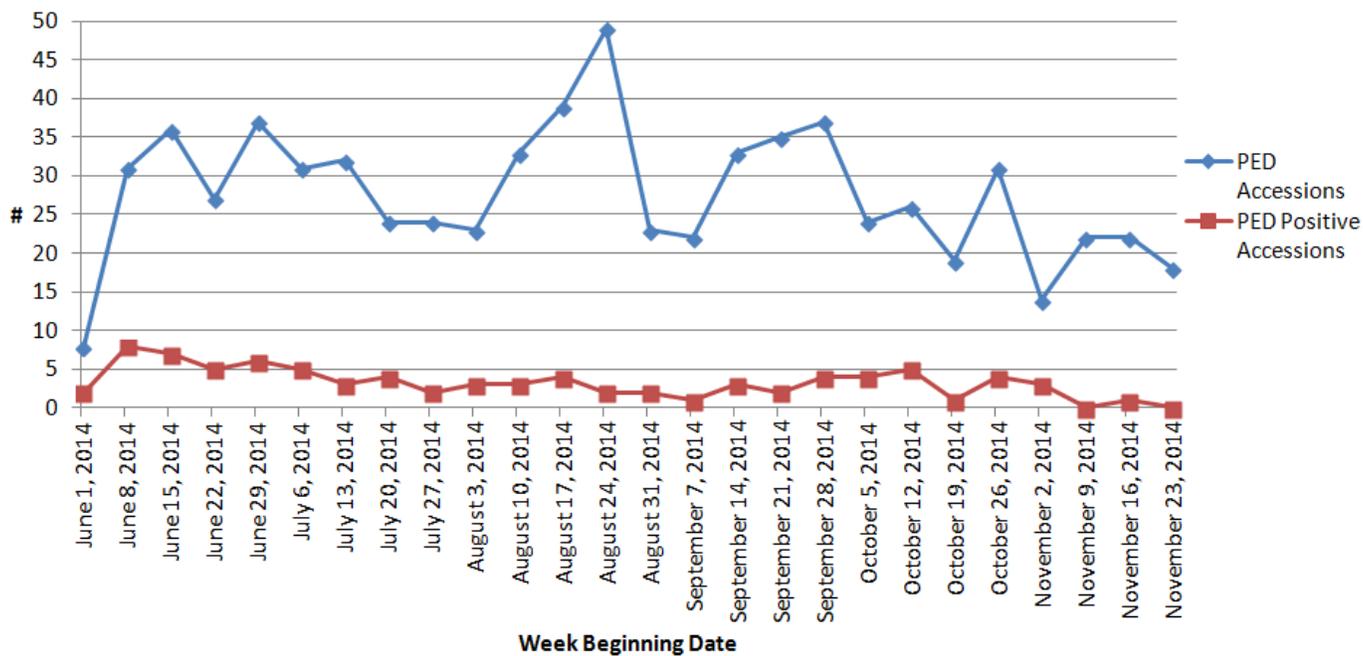
General information about the SECD monitoring and control program in Indiana is provided on the BOAH website at: www.in.gov/boah/2680.htm

Summary Data – June 5, 2014 through November 29, 2014

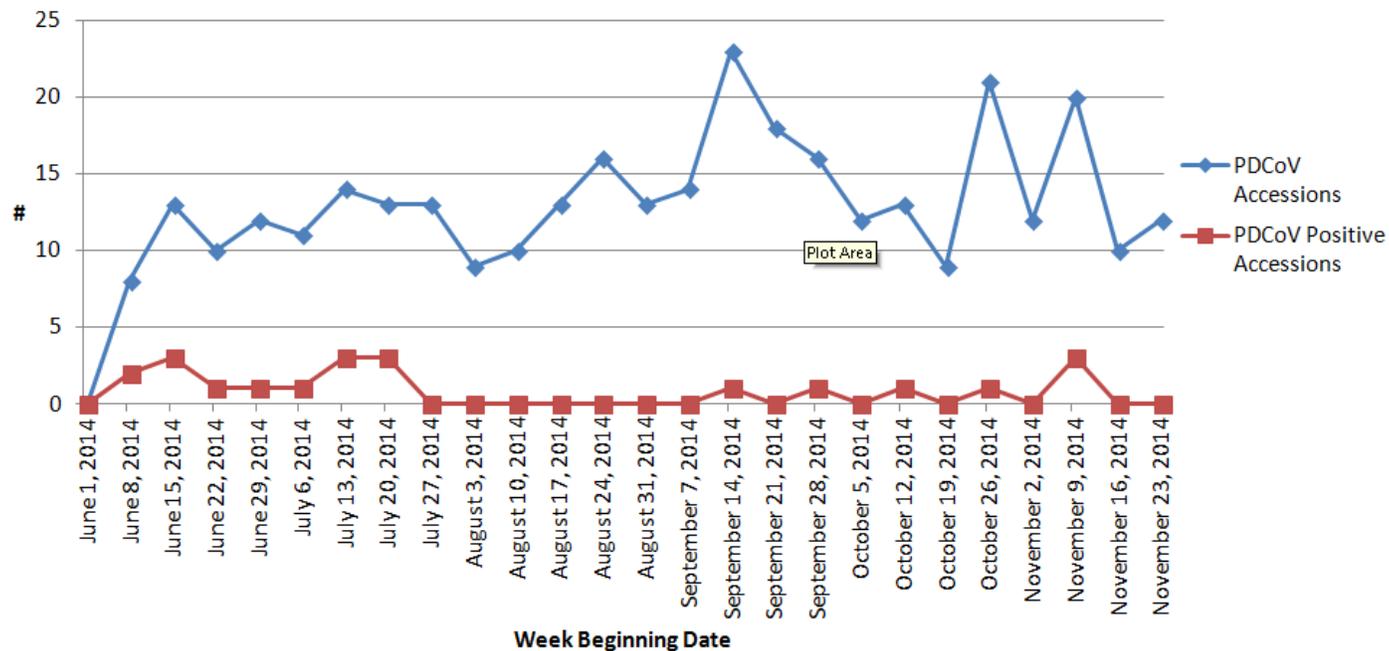
The number of accessions submitted for SECD testing has fluctuated from week to week since the beginning of the federal order. Each accession represents a test or set of tests performed on specimens from an individual premises. The maximum number of accessions in one week for PED occurred the week of Aug. 24, 2014 with 49 accessions. Since June 5, 2014, the number of PED accessions ranged from 8 to 49 and averaged 28 accessions per week. From the week of June 5 through the week of Nov. 2, 2014 at least one PED accession was positive each week. However, only one additional PED positive accession has been added since Nov. 9. A positive accession is defined as an accession where at least one animal tested positive. These may occur on a premises that previously tested positive.

The maximum number of accessions in one week for PDCoV occurred the week of Sept. 14, 2014 with 23 accessions. Since June 5, 2014, the weekly number of PDCoV accessions has ranged from 0 to 23 and averaged 13 accessions. Since the beginning of the reporting period, 14 of 26 weeks (54%) have had zero PDCoV-positive accessions.

PED Accessions by Week

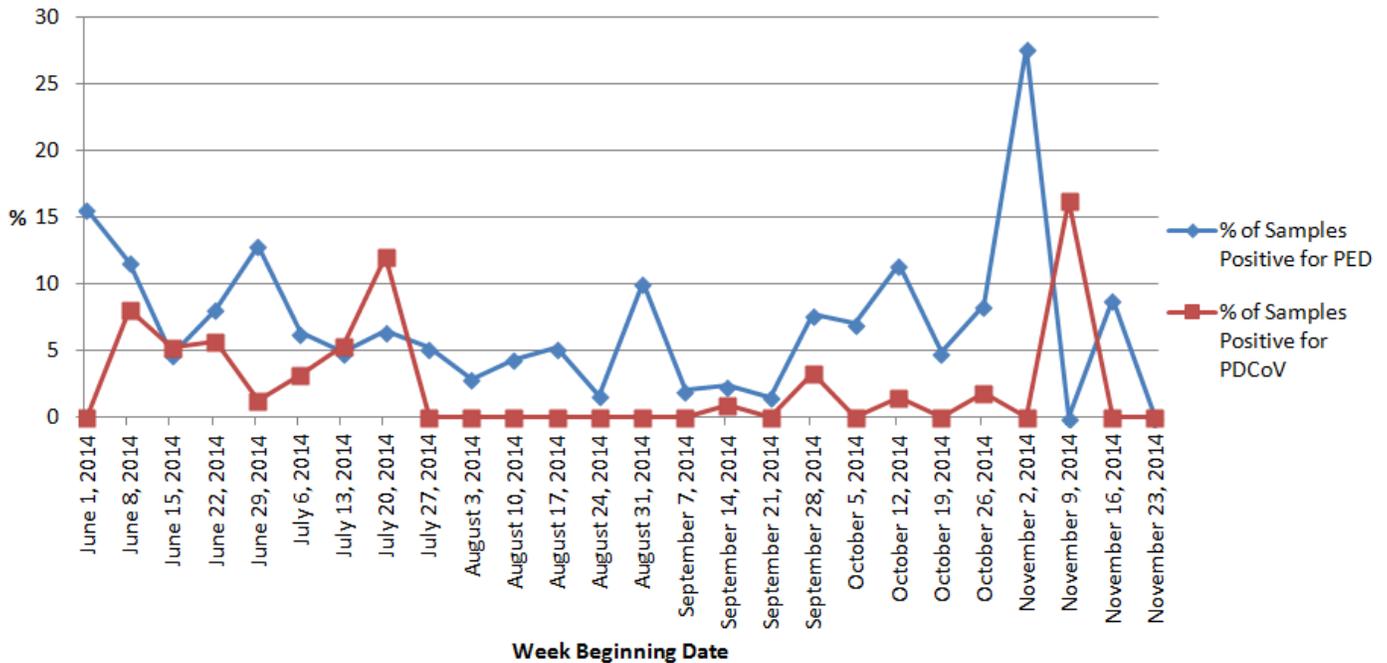


PDCoV Accessions by Week



In an effort to offer a slightly different perspective on the data, the following graph shows the percentage of all samples tested each week that were positive. In contrast to the previous two graphs that focused on the total number of accessions, the graph below is heavily influenced by high-volume submitters and submissions from highly infected premises. However, over time, this graph may better demonstrate seasonal trends in disease and the long-term effect of herd clean-up efforts.

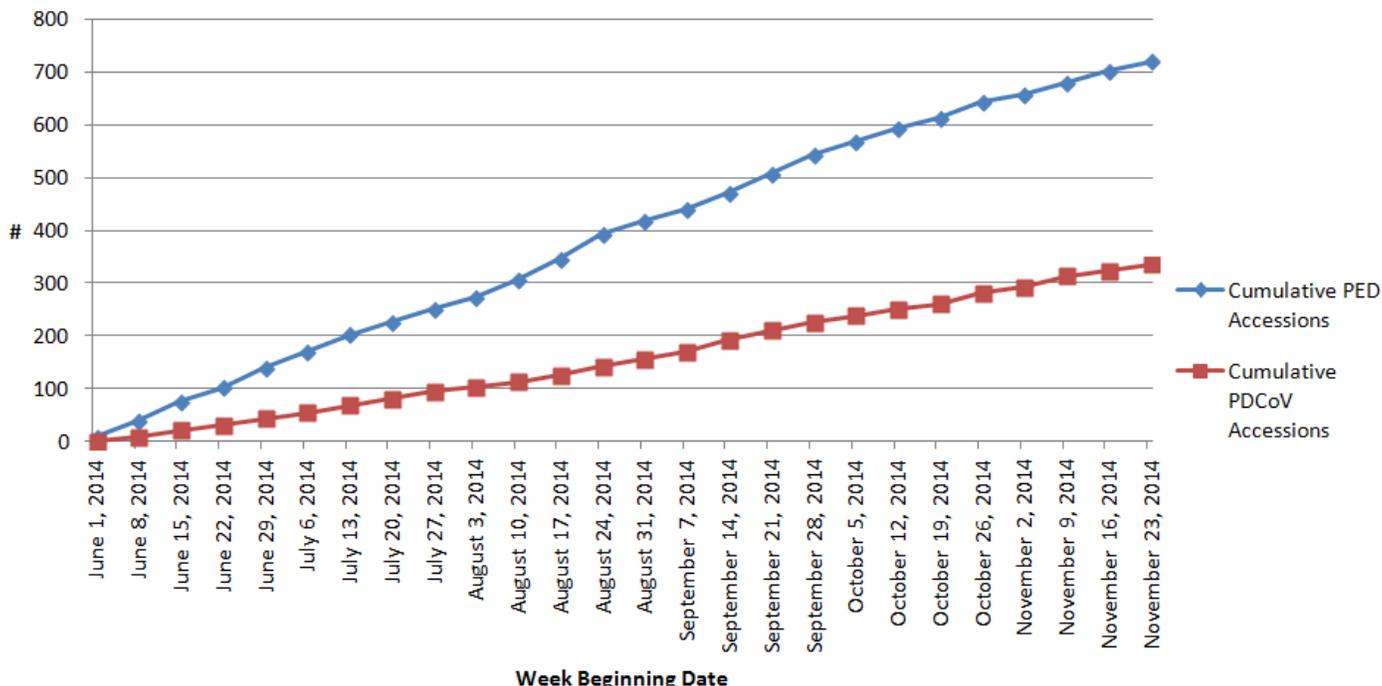
Percent of All Samples Testing Positive



Cumulative Testing Data – June 5, 2014 through November 29, 2014

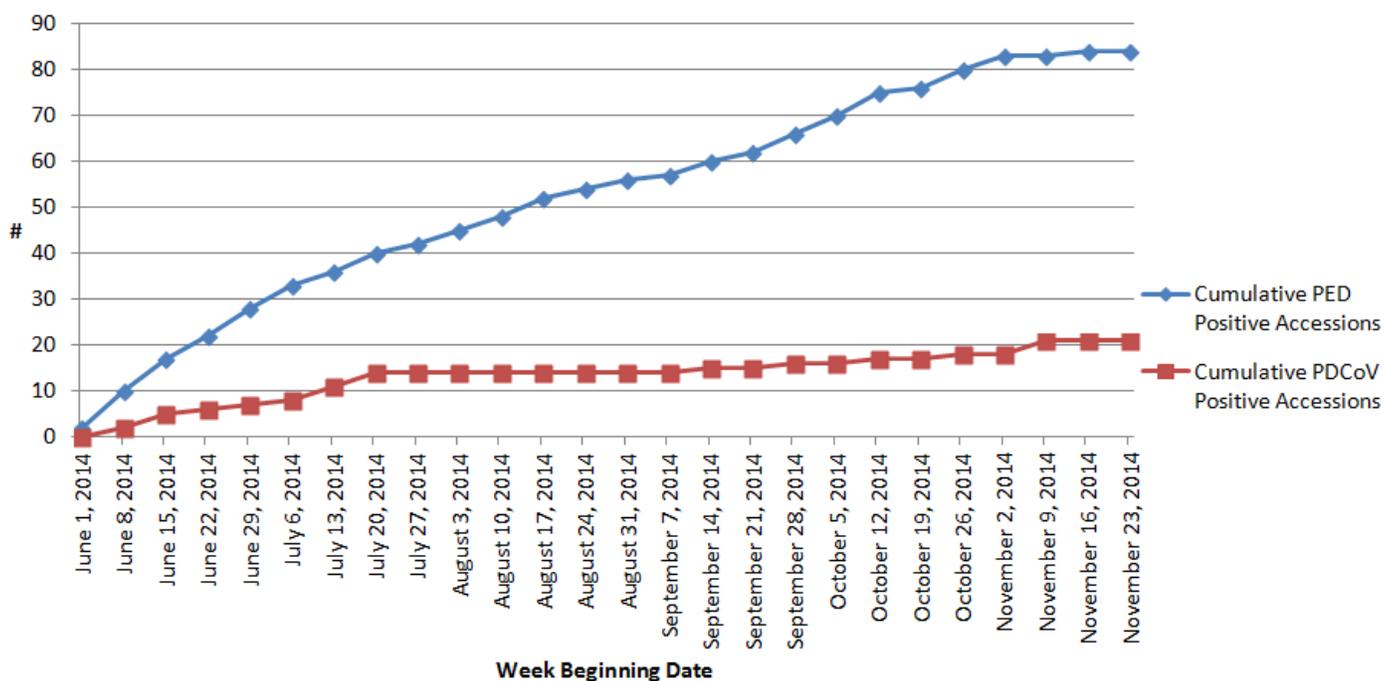
	PED	PDCoV
Total Number of Accessions	720	335
Number of Positive Accessions	84	21
Number of Negative Accessions	636	314
Total Number of Samples Tested	3174	1472

Cumulative Accessions



Of all PED accessions, 12% have contained at least one sample that tested positive. This is true for only 6% of all PDCoV accessions. Although the number of accessions submitted for SECD testing has increased steadily, the number of accessions testing positive has followed two distinctly different paths for the two diseases. The cumulative number of PDCoV-positive accessions has remained the same as the prior week for 13 out of 26 weeks (50%). This is true for only 2 out of 26 weeks (8%) for the cumulative number of PED positive accessions, and both of these occurred within the last 3 weeks of reporting.

Cumulative Positive Accessions



Cumulative Geographic Distribution Data – June 5, 2014 through November 29, 2014

SECD testing has been distributed throughout the state, with results reported for 55 of 92 counties (60%). This mirrors the geographic distribution of commercial swine operations in our state. While a nearly even split of premises have tested for either PED only or both PED+PDCoV, a large majority of counties report testing for both PED and PDCoV (40/55 or 73%). 34% of the premises and 58% of the counties that have submitted accessions for testing have had at least one positive result.

	Number Tested	Number with Positive Results
Premises	170	58
PED Only	83	44
PDCoV Only	3	6
PED+PDCoV	84	8
Counties	55	32
PED Only	15	21
PDCoV Only	0	4
PED+PDCoV	40	7

SECD Data Available from USDA

USDA releases a weekly summary report of SECD testing occurring within the United States. The reports covering the most recent two weeks of data were included with the distribution of this report from the Indiana State Board of Animal Health. You may also access the reports via the [USDA APHIS website](#). At this website, a link to the “Weekly Situation Report” and “Situation Report Archive” may be found midway down the page, under the “SECD Reports” header.

A brief summary of the most recent Indiana data from USDA is included below; however, these numbers will likely differ from the numbers presented above. It is important to note that the USDA data does not include any environmental samples not directly associated with a farm site and live pigs (e.g., feed or swabs of livestock trailers, feed mills, markets, etc). Additionally, the numbers reported here reflect only those accessions that have gone through the full USDA verification process, which typically takes about two weeks to complete.

	PED	PDCoV	PED + PDCoV
Number of Confirmed* Positive Premises	18	0	3
Number of Presumptive** Positive Premises	21	1	3

**Confirmed positive cases must have exhibited clinical signs and had a positive test*

***Presumptive positive cases have a positive test, but the animals did not exhibit clinical signs*

NOTE: The data in the table above represents the most recent and accurate classifications BOAH has for tests meeting USDA’s criteria for inclusion. This data has not yet been officially updated in the USDA database, but will be soon. In an effort to address as many revisions as possible in this report, we are including this data here, even though it differs from what was included in the most recent USDA Situation Report.