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Porcine Epidemic Virus – Is the worst past?

Dr. Liz Wagstrom, DVM, MS
National Pork Producers Council

A Look Back



United States Department of Agriculture

Office of Communications

1400 Independence Ave, SW
Washington, DC 20250-1300
(202) 720-4623
oc.news@usda.gov
www.usda.gov

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Contact:

Office of Communications (202)720-4623

Agriculture Secretary Tom Vilsack Announces Additional USDA Actions to Combat Spread of Diseases Among U.S. Pork Producers

Required Reporting of Cases Latest Measure to Slow Disease Spread

St. Paul, Minn., April 18, 2014 - Agriculture Secretary Tom Vilsack today announced that in an effort to further enhance the biosecurity and health of the US swine herd while maintaining movement of pigs in the US, the USDA will require reporting of Porcine Epidemic Diarrhea Virus (PEDv) and Swine Delta Coronavirus in order to slow the spread of this disease across the United States. USDA is taking this latest action due to the devastating effect on swine health since it was first confirmed in the country last year even though PEDv it is not a reportable disease under international standards. PEDv only affects pigs and does not pose a risk to people and is not a food safety concern.

- June 5 Federal Order
- Case numbers before June 5 difficult to compare with those after



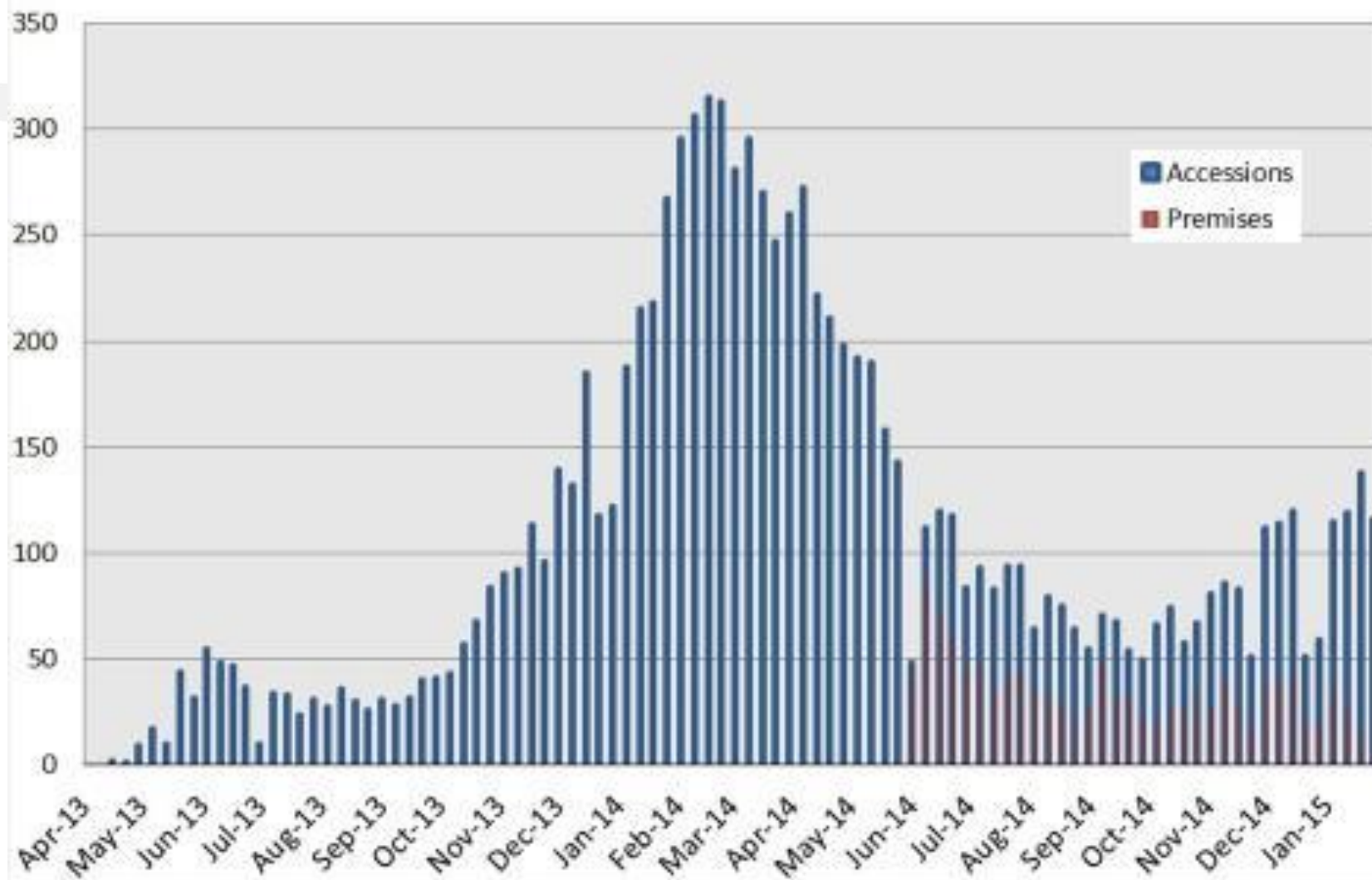
PED Federal Order

- Laboratory Submissions
 - Diagnostic testing supported
 - PIN on submission now required for reimbursement
 - Positive test results confirmed by a Disease Reporting Officer (DRO)
 - Time lag in confirming results

Laboratory Network

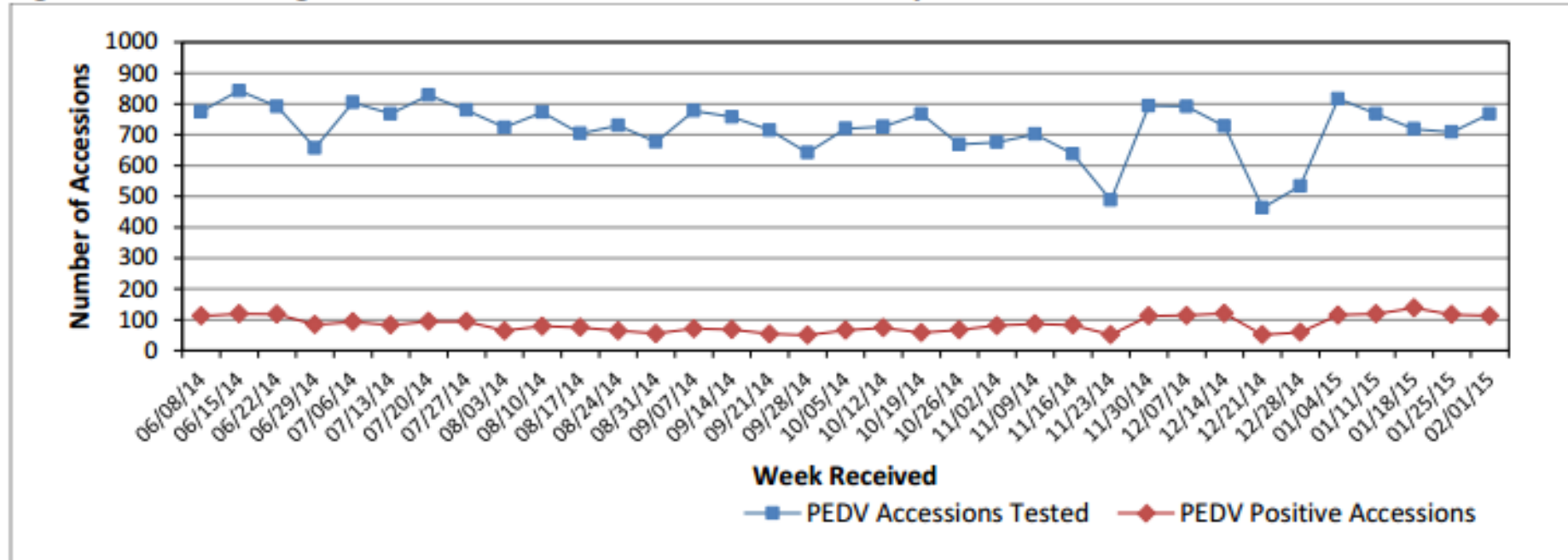
- NAHLN laboratories essential in identifying virus and developing higher throughput tests
- IT issues delayed reporting from lab to APHIS, APHIS to states, and from APHIS to public
 - Major labs are now messaging results

New PEDv Case Reports by Week



PED Laboratory Testing

Figure 3. PEDV: Biological Accessions Tested and Number Positive by Week*



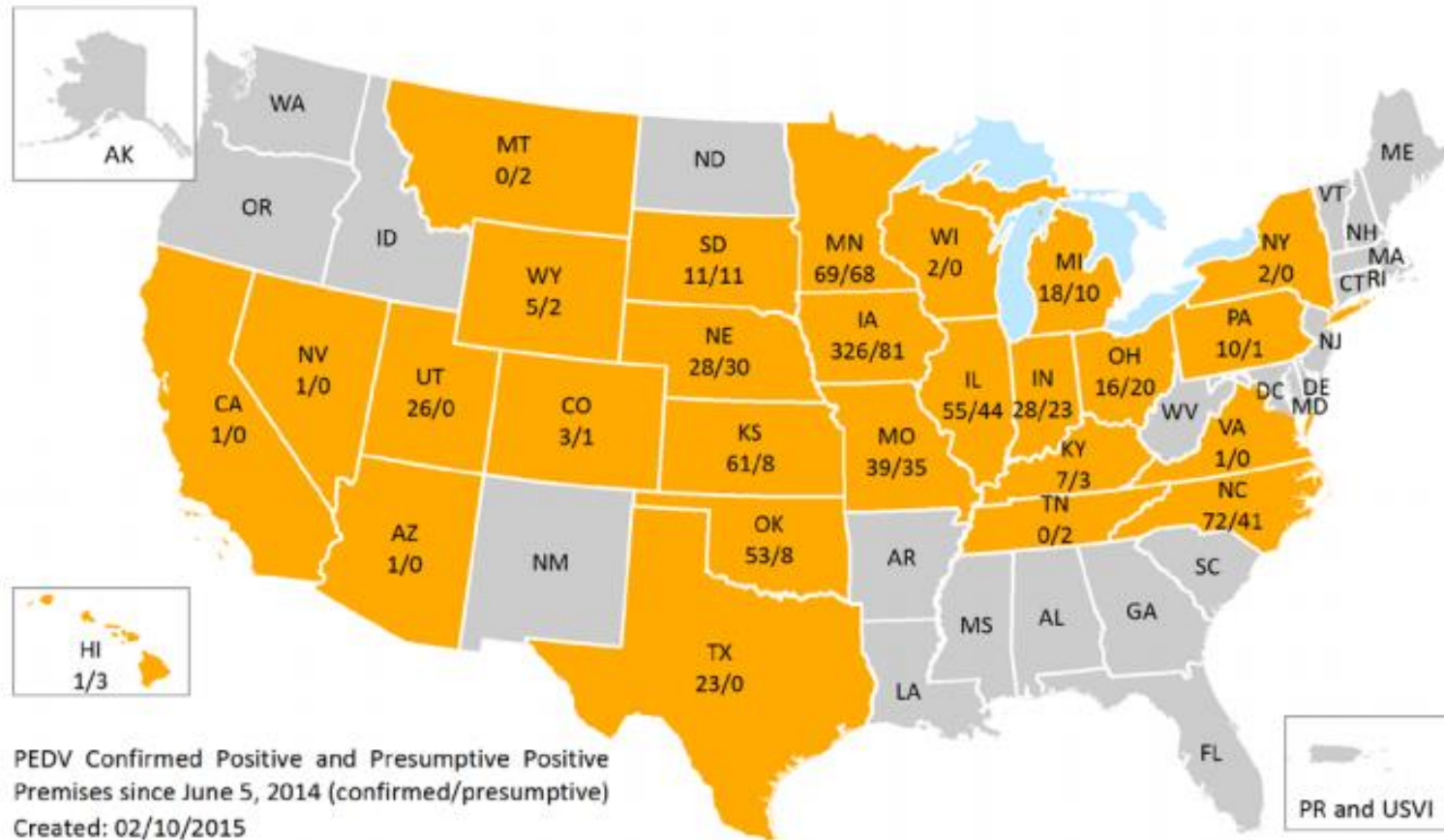
*Week the sample was received at the laboratory for testing

Table 7. Biological Accessions Tested and Number Positive by Month

MONTH ^{c, d}	PEDV			PDCOV ^b		
	TESTED ^a	POSITIVE	% POS	TESTED	POSITIVE	% POS
<i>Before the Federal Order (FO)</i>						
April 2013	-	3	-	-	-	-
May 2013	-	112	-	-	-	-
June 2013	-	187	-	-	-	-
July 2013	-	113	-	-	-	-
Aug 2013	-	138	-	-	-	-
Sept 2013	-	134	-	-	-	-
Oct 2013	-	267	-	-	-	-
Nov 2013	1,064	414	38.9%	-	-	-
Dec 2013	2,294	630	27.5%	-	-	-
Jan 2014	2,774	953	34.4%	-	-	-
Feb 2014	3,650	1,228	33.6%	-	-	-
March 2014 ^c	3,601	1,123	31.2%	45	7	15.6%
April 2014	3,775	1,053	27.9%	947	124	13.1%
May 2014	3,590	757	21.1%	1,042	112	10.7%
June 2014 (through 6/4/14)	489	84	17.2%	140	15	10.7%
Total Before FO	21,128	6,976	33.0%	2,172	260	12.0%

MONTH ^{c, d}	PEDV			PDCOV ^b		
	TESTED ^a	POSITIVE	% POS	TESTED	POSITIVE	% POS
Aug 2014	3,095	312	10.1%	1,193	18	1.5%
Sep 2014	3,143	261	8.3%	1,338	10	0.7%
Oct 2014	3,306	300	9.1%	1,900	19	1.0%
Nov 2014	2,507	303	12.1%	1,555	30	1.9%
Dec 2014	3,237	446	13.8%	1,982	50	2.5%
Jan 2015	3,085	498	16.1%	1,845	44	2.4%
Feb 2015	768	113	14.7%	485	11	2.3%
Total After FO	25,468	3,050	12.0%	12,317	305	2.5%
Grand Total	46,596	10,026	21.5%	14,489	565	3.9%

Map 1. PEDV: Cumulative Confirmed and Presumptive PEDV Positive Premises since June 5, 2014



Fewer breeding herd breaks

Table 2. Number of SECD Confirmed and Presumptive Positive Premises in Each Production Class, by Month^a
(includes PEDV, PDCoV, and Dual Infections) (confirmed/presumptive)

MONTH TESTED	NURSERY	WEAN TO FINISH	FARROW TO FINISH	FINISHER	SOW/BREEDING	UNKNOWN
Jun 2014	19 / 11	31 / 16	14 / 8	23 / 29	47 / 45	14 / 52
Jul 2014	25 / 12	37 / 7	6 / 5	22 / 15	35 / 14	13 / 30
Aug 2014	15 / 8	18 / 8	2 / 5	25 / 9	12 / 8	9 / 18
Sep 2014	16 / 4	21 / 7	2 / 2	31 / 9	31 / 7	6 / 13
Oct 2014	2 / 4	25 / 7	3 / 0	38 / 16	11 / 2	7 / 7
Nov 2014	7 / 1	17 / 3	2 / 0	44 / 6	12 / 10	17 / 7
Dec 2014	14 / 0	35 / 2	12 / 3	59 / 6	19 / 4	12 / 4
Jan 2015	15 / 1	32 / 4	3 / 0	36 / 7	8 / 1	19 / 5
Feb 2015 (to date)	0 / 0	0 / 0	0 / 0	0 / 0	1 / 0	0 / 0
TOTAL	113 / 41	216 / 54	43 / 23	278 / 97	176 / 90	96 / 136

^aMonth the sample was received at the laboratory for testing

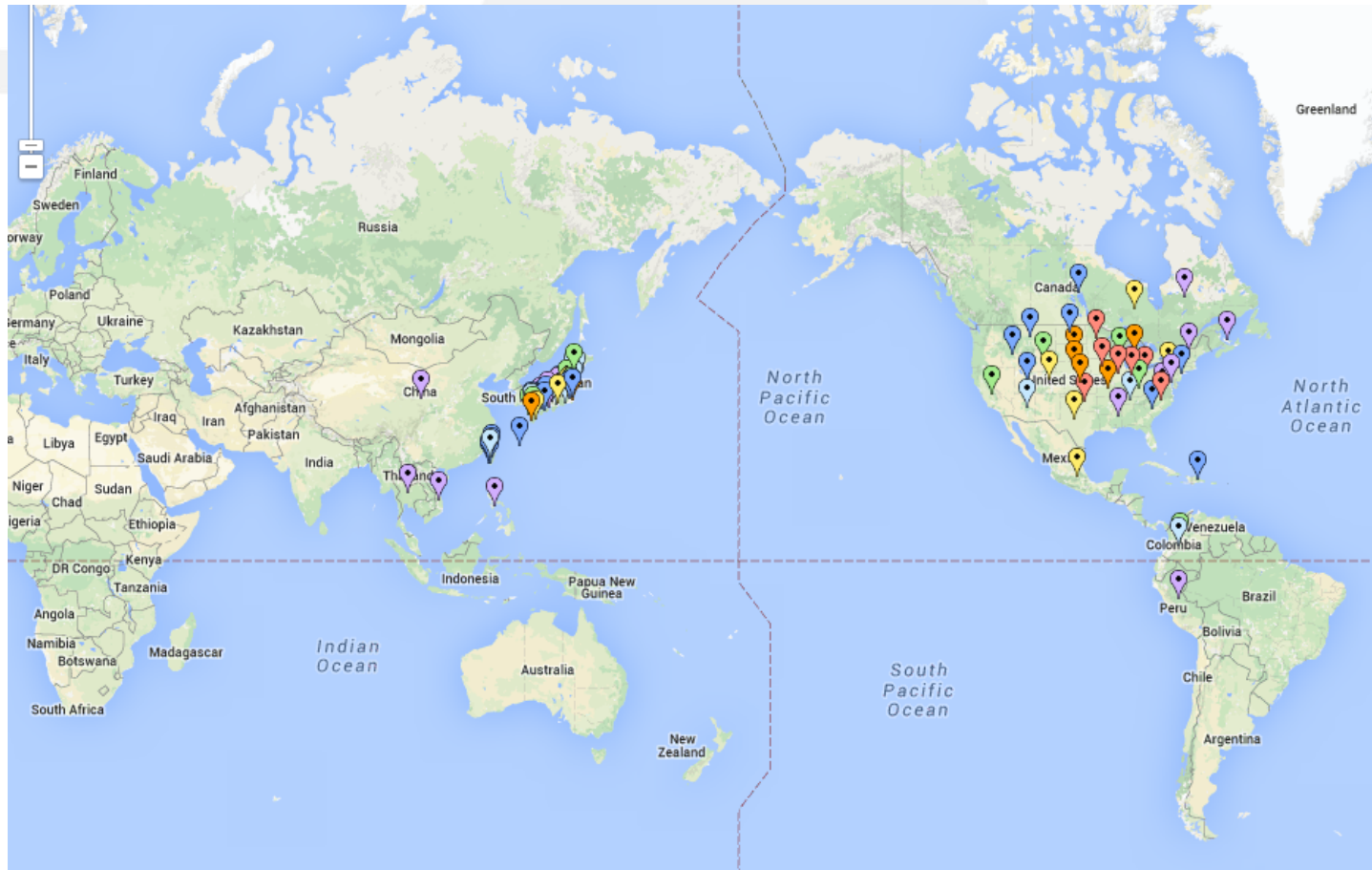
Control strategies

- Biosecurity improvements
 - Animals
 - Vehicles
 - Inputs
- Herd closures
- Vaccine in specific cases

Why the lower incidence?

- Control strategy effectiveness
- Larger numbers tested due to APHIS diagnostic test funding
- Repeat testing of sites to confirm return to negative status

PED Internationally



PED Europe

- Mainly lower virulent (Indel) strain
- Not a reportable disease in many EU countries
 - Germany, Ukraine, Netherlands, Austria

Unknowns

- Vehicle for virus entry into the US
 - E.g. Hawaii break
- How to prevent the next virus
- Better prepared
 - Surveillance
 - IT issues

Summary

- Fewer PED breaks in sow farms than a year ago
- Still unknown routes of entry into the US or remote areas
- Need to evaluate the value of the Federal Order prior to implementing an interim rule

DISCUSSION