

# MEASURING KEY AREAS IN HEALTH FOR BETTER PERFORMANCE AT “PIPESTONE”

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October 3, 2014

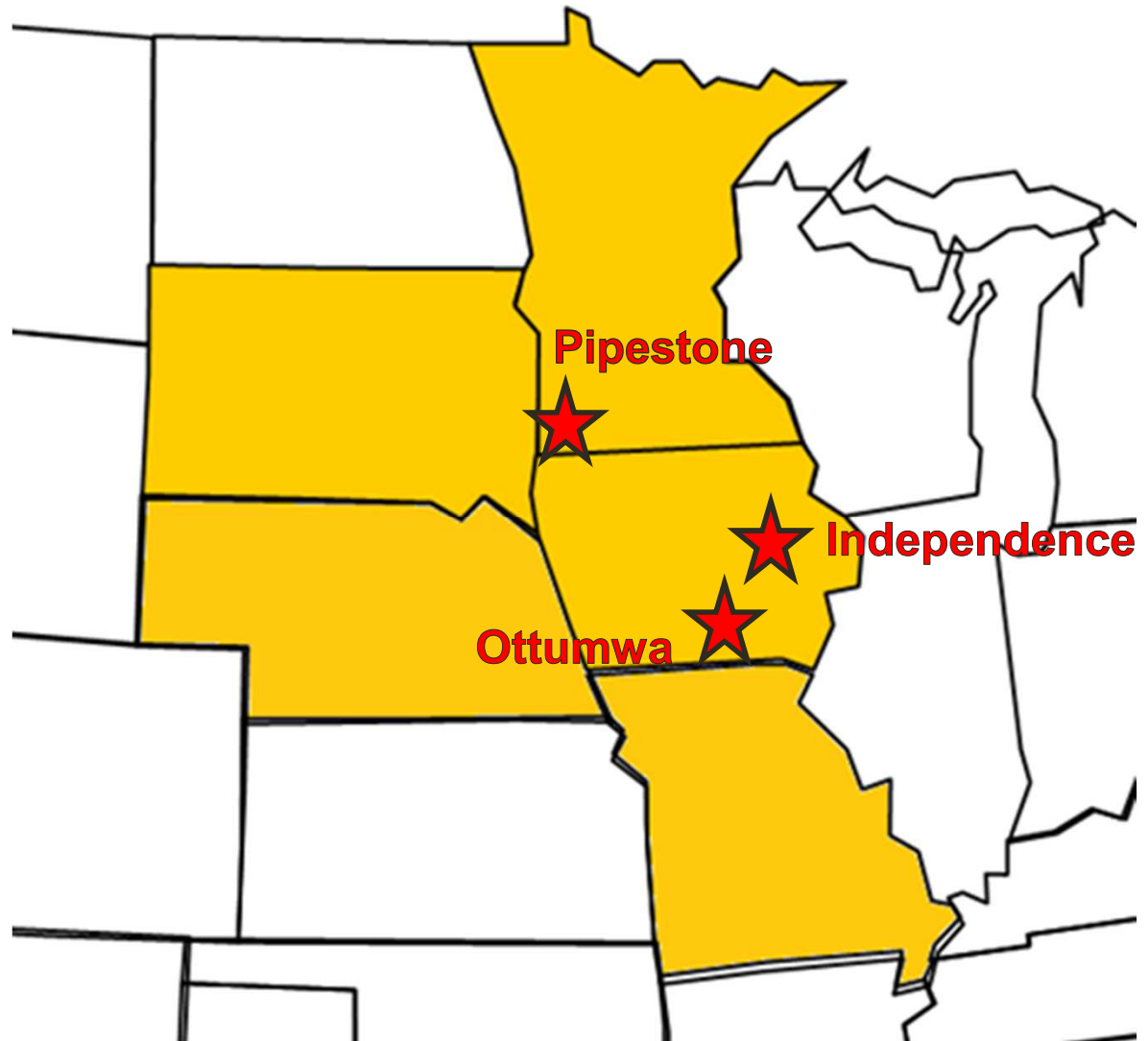
**Barry R. Kerkaert, DVM**

**Pipestone Minnesota, United States of America**



**PIPESTONE®**

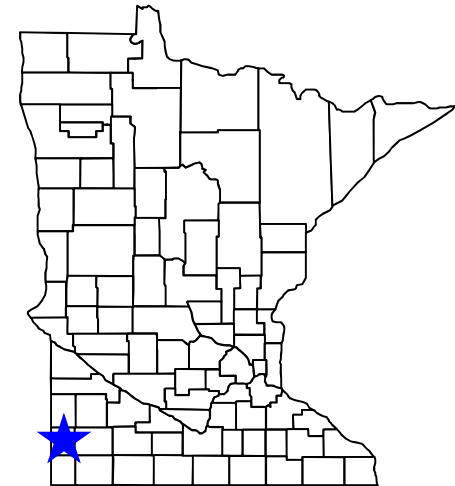
# Pipestone Veterinary Services: Locations



- Established 1942
- 3 Locations
  - Pipestone, MN
  - Independence, IA
  - Ottumwa, IA
- 30 Veterinarians:
  - 15 100% swine practice
  - 3 recognized as Swine Practitioner of the Year by American Association of Swine Veterinarians
  - 2 recognized as Science in Practice Award winners
  - 1 recognized with 40 under 40 award in Agriculture
- \$40+ million in product sales in 2013
- Recognized innovative industry leader in research related to genetics and animal health products (Pipestone Applied Research Initiative)
- Industry leader in bio-security protocols and testing
- Serve on national health committees for American Association of Swine Veterinarians (AASV), National Pork Board (NPB) and National Pork Producers Council (NPPC)
- Have consulted or lectured in every major swine production area in the world

# PIPESTONE®

VETERINARY SERVICES



# Executive Team



- ✓ **Dr. Gordon Spronk (Chairman of BOD, Pipestone)** is a native of the Pipestone, MN area. After completing his education at the University of Minnesota College of Veterinary Medicine in 1981, he returned to Pipestone to practice at the Pipestone Veterinary Clinic. Dr. Spronk is the co-founder of the "Pipestone System" and numerous affiliated companies under Pipestone Holdings. Dr. Spronk is the recipient of the 2000 AASV Swine Practitioner of the Year Award and the 2011 Leman Science in Practice Award. Dr. Spronk and his wife, Deb, live near Pipestone and have three children, Courtney, J.J., and Morgan. In his free time, Dr. Spronk enjoys traveling and spending time with his family.



- ✓ **Dr. Luke Minion (CEO, Pipestone)** grew up in southwestern Minnesota and began his career with the Pipestone Veterinary Clinic in 2000 after graduating from the University of Minnesota College of Veterinary Medicine. Dr. Minion serves as the CEO of Pipestone Holdings, LLC and oversees the operations of the clinics management and livestock marketing companies. Dr. Minion and his wife, Betsy, enjoy golfing and keeping up with their son, Landon and twin daughters Claire and Lauren. Dr. Minion was honored in 2013 with the 40 under 40 award in Agriculture by Vance Publishing.



- ✓ **Dr. Barry Kerkaert (Vice President, Pipestone)** grew up in southwest Minnesota and began his career with the Pipestone Veterinary Clinic in 1994 after graduation from the University of Minnesota College of Veterinary Medicine. Dr. Kerkaert serves as Vice President of Pipestone management and veterinary operations and leads the System Grow Finish team. Dr. Kerkaert and his wife Karen live near Pipestone, Minnesota with their three children and enjoy 4-H activities including showing sheep and swine in local and national competitions. Dr. Kerkaert was honored in 2013 with the Swine Practitioner of the Year award from the American Association of Swine Veterinarians. Barry enjoys spending his free time hunting and fishing with his friends and family.



- ✓ **Brian Stevens (CEO, Big STONE)** grew up on a diversified livestock farm in Eastern Nebraska, attended the University of Nebraska where he received his Bachelor's degree in Animal Science. After graduation he began what would become a 19 year career with Hormel Foods. His last 7 years there he was Director of Hog Procurement and oversaw all activities related to hog buying and carcass evaluation. Brian is President of Big Stone Marketing which was established to help independent producers with negotiating packer contracts, open market sales, benchmarking among other producers, risk management through forward contracting, process verification programs and overall marketing performance and opportunities.

# Vision & Values

*Helping farmers today create the farms of tomorrow*

*Integrity*

*Caring*

*Commitment*

*Growth*

*Teamwork*

**PIPESTONE®**

Advancing Animal Care Every Day™

# Current Business Operations

- Pipestone Veterinary Services
- Pipestone System
- Pipestone International Management
- Big Stone Marketing

# PIPESTONE®

**PIPESTONE®**

VETERINARY SERVICES

**PIPESTONE®**

INTERNATIONAL

**PIPESTONE®**

SYSTEM

**Big Stone**  
Marketing



- Established 1990
- 850+ employees
- Manage ~170,000 sows
  - 50+ separate sow farms in Minnesota, Iowa, South Dakota and Nebraska
  - 27 PSY (sow yield)
  - 14.5 Total Born per Sow
- 6th largest Hog producer in US based upon number of sows
- Manage ~500,000 finishing pigs annually
- Information and record keeping systems that allow management to track progress as well as to respond to challenges real time

# PIPESTONE®

SYSTEM

## Top 25 U.S. Pork Powerhouses® 2013 A Successful Farming Exclusive Report

2013 Ranking	Company/Headquarters	# of Sows In 2013	# of Sows In 2012
1	Smithfield Foods/Shuanghui International/Smithfield, VA (Also 99,000 sows in Mexico, 81,000 in Poland, and 48,000 in Romania. Worldwide total: 1,096,000 sows.)	868,000	862,000
2	Triumph Foods/St. Joseph, MO (Includes Christensen Farms:156,500 sows, Hanor: 82,500, Allied Producers' Cooperative: 60,500, New Fashion Pork: 82,000, and Eichelberger Farms: 30,000 sows.)	381,500	378,500
3	Seaboard Foods/Shawnee Mission, KS	217,000	217,000
4	The Maschhoffs/Carlyle, IL	208,000	196,000
5	Prestage Farms/Canton, NC	170,000	165,000
6	<del>Iowa Select Farms/Towne Falls, IA</del>	160,000	160,000
6	Pipestone System/Pipestone, MN	160,000	145,000
8	Cargill/Minneapolis, MN	155,000	136,000
9	Carthage System/Carthage, IL	104,500	103,500
10	AVMC Management Services/Audubon, IA	100,000	82,000
11	Maxwell Foods/Goldsboro, NC (Now includes Indiana operation.)	90,000	69,000
12	Tyson Foods/Springdale, AR	60,000	52,000
13	Hormel Foods/Austin, MN	54,000	54,000
13	TriOak Foods/Oakville, IA (Bought sows from AgFeed.)	54,000	35,000
15	Pillen Family Farms/Columbus, NE	52,500	50,000
16	Hatfield Quality Meats/Hatfield, PA	51,500	49,900
17	Holden Farms/Northfield, MN	48,000	48,000
18	Wakefield Pork/Caylord, MN	45,300	42,900

# Key Areas for Monitoring Farm Health

- Growing Pig
- The Sow Farm
- Boar Stud
- Across the Pipestone System
- Across the Industry

**PIPESTONE®**



## Mortality By Calendar Week

**Producer:** Spronk Brothers  
**Site:** All Sites  
**Start Year/Week:** 2014/34  
**End Year/Week:** 2014/37

**2.88%**

<b>Total Dead For Period:</b>	<b>440</b>	95	125	109	111
<b>% Dead For Period:</b>	<b>0.40%</b>	0.09%	0.11%	0.10%	0.10%
<b>% of Total Dead For Period:</b>	<b>100.00%</b>	21.59%	28.41%	24.77%	25.23%

**Production Year:**  
**Production Quarter**

2014	2014	2014	2014
Q3	Q3	Q3	Q3
08/17/2014	08/24/2014	08/31/2014	09/07/2014
08/23/2014	08/30/2014	09/06/2014	09/13/2014

Producer	Site	Group	Group Type/Stage	In	Current Group Inventory	Grp Start Date	Week on Feed	# Dead to Date	Mort % to Date	# Dead for Report Period	34	35	36	37
Spronk Brothers	Leon Kracht	SB1405FRT	Wean to Finish	2,703	28	02/17/2014	31	60	2.22%	2	2			
Spronk Brothers	Hubbling WF	SB1405SHW	Wean to Finish	2,576	167	02/17/2014	31	163	6.33%	9	1	6	2	
Spronk Brothers	Burkhardt	SB1406BHT	Wean to Finish	2,185	210	02/24/2014	30	72	3.30%	1	1			
Spronk Brothers	Faber	SB1406FAB	Wean to Finish	5,211	640	02/28/2014	29	197	3.78%	21	5	9	6	1
Spronk Brothers	Dunn-SB	SB1407DUN	Wean to Finish	5,310	970	03/07/2014	28	153	2.88%	38	12	8	11	7
Spronk Brothers	Leon Kracht	SB1409HOM	Wean to Finish	2,744	1,302	03/17/2014	27	71	2.59%	17	7	4	3	3
Spronk Brothers	Iso Site	SB1410ISO	Wean to Finish	2,677	1,898	03/24/2014	26	94	3.51%	24	6	8	5	5
Spronk Brothers	Sundal	SB1410SUN	Wean to Finish	2,646	1,692	03/28/2014	25	99	3.74%	17	4	4	2	7
Spronk Brothers	Hiawatha West N	SB1411HWN	Wean to Finish	2,544	1,735	03/31/2014	25	70	2.75%	11	2	2	2	5
Spronk Brothers	PVL	SB1413PVL	Wean to Finish	4,947	4,844	04/18/2014	22	103	2.08%	41	9	8	12	12
Spronk Brothers	Fruechte	SB1414FRT	Wean to Finish	2,717	2,655	04/23/2014	21	62	2.28%	10		5	3	2
Spronk Brothers	Crawford	SB1415CRF	Wean to Finish	2,553	2,509	05/02/2014	20	44	1.72%	15	4	1	5	5
Spronk Brothers	Titan	SB1416TTN	Wean to Finish	5,076	5,006	05/07/2014	19	70	1.38%	22	5	4	9	4
Spronk Brothers	Home Site	SB1417HOM	Wean to Finish	2,717	2,663	05/16/2014	18	54	1.99%	8	3		2	3
Spronk Brothers	Iso Site	SB1418ISO	Wean to Finish	2,472	2,418	05/21/2014	17	54	2.18%	12	1	5	3	3
Spronk Brothers	Burkhardt	SB1419BHC	Wean to Finish	2,104	2,082	05/29/2014	16	22	1.05%	6	1	1	1	3
Spronk Brothers	Hiawatha West N	SB1419HWN	Wean to Finish	4,428	4,387	05/27/2014	17	41	0.93%	12	4	5	2	1
Spronk Brothers	Arends	SB1420ARD	Wean to Finish	5,209	5,128	06/04/2014	15	81	1.56%	21	3	7	2	9
Spronk Brothers	CalSota RB2	SB1421RB2	Wean to Finish	4,464	1,905	06/13/2014	14	65	1.46%	13	3	2	3	5
Spronk Brothers	Amies	SB1422ARN	Wean to Finish	2,918	2,885	06/18/2014	13	33	1.13%	23	4	7	6	6
Spronk Brothers	Fruechte	SB1423FRT	Wean to Finish	2,559	2,532	06/25/2014	12	27	1.06%	15	8	1	3	3
Spronk Brothers	Vander Pol	SB1424MVP	Wean to Finish	2,482	2,453	06/30/2014	12	29	1.17%	12	2	3	7	
Spronk Brothers	Home Site	SB1425HOM	Wean to Finish	2,025	2,013	07/07/2014	11	12	0.59%	7		4	1	2
Spronk Brothers	Iso Site	SB1425ISO	Wean to Finish	2,067	2,041	07/07/2014	11	26	1.26%	9		6	1	2
Spronk Brothers	Bearcat	SB1426BCT	Wean to Finish	5,226	5,186	07/11/2014	10	40	0.77%	24	3	10	3	8
Spronk Brothers	AHenning	SB1427HEN	Wean to Finish	5,080	5,051	07/21/2014	9	29	0.57%	13	2	3	3	5
Spronk Brothers	Hiawatha West N	SB1427HWN	Wean to Finish	2,594	2,589	07/25/2014	8	5	0.19%	4		1	1	2
Spronk Brothers	Baker	SB1428BKR	Wean to Finish	5,139	5,120	07/30/2014	7	19	0.37%	14	3	7	4	
Spronk Brothers	Fruechte	SB1430FRT	Wean to Finish	2,506	2,500	08/11/2014	6	6	0.24%	6		3	2	1
Spronk Brothers	Hubbling WF	SB1430SHW	Wean to Finish	2,542	2,542	08/15/2014	5		0.00%	0				
Spronk Brothers	Home Site	SB1431HOM	Wean to Finish	2,781	2,779	08/22/2014	4	2	0.07%	2			1	1
Spronk Brothers	Iso Site	SB1431ISO	Wean to Finish	2,540	2,533	08/20/2014	4	7	0.28%	7		1	3	3
Spronk Brothers	Burkhardt	SB1433BHT	Wean to Finish	2,080	2,077	09/02/2014	3	3	0.14%	3			1	2
Spronk Brothers	Faber	SB1433FAB	Wean to Finish	3,370	3,369	09/05/2014	2	1	0.03%	1				1

**Total 87,909**

# Monitoring weekly health at the flow level

<b>Mortality By Calendar Week</b>							
<b>System Grow Finish</b>							
<b>Start Year/Week:</b>				2014/34			
<b>End Year/Week:</b>				2014/37			
<b>Total Dead For Period:</b>				<b>1,652</b>			
<b>Production Year:</b>				<b>2014</b>	<b>2014</b>	<b>2014</b>	<b>2014</b>
<b>Production Quarter:</b>				<b>Q3</b>	<b>Q3</b>	<b>Q3</b>	<b>Q3</b>
<b>Week 36:</b>				<b>08/17/2014</b>	<b>08/24/2014</b>	<b>08/31/2014</b>	<b>09/07/2014</b>
				<b>08/23/2014</b>	<b>08/30/2014</b>	<b>09/06/2014</b>	<b>09/13/2014</b>
<b>Producer</b>	<b>Total Inventory</b>	<b>Wean to Finish Mortality Trend</b>	<b># Dead for Report Period</b>				
				<b>34</b>	<b>35</b>	<b>36</b>	<b>37</b>
Black Oak	22,927	5.99%	239	64	58	75	20
Classic	4,499	5.24%	41	11	6	8	6
David Reuter	2,172	2.38%	9	4	1	1	1
Dean Vroman	3,709	5.12%	33	12	7	8	10
Eastview	6,484	4.79%	54	13	24	10	18
Jim Veldkamp (Waxdahl)	2,570	0.67%	3			3	26
Lance Knobloch	4,504	1.15%	9	2	2	3	10
LED Pencelin	6,844	3.78%	45	9	9	18	12
Mike and Cyndy Baustian	4,427	4.03%	31	7	11	6	3
P&P Pork	12,903	4.59%	103	20	34	42	29
Pig Hill	12,001	10.83%	226	54	55	26	36
Pig Hill Sow Farm	10,551	2.67%	49	12	7	16	19
Pig Hill/Pro Ag	4,711	1.95%	16	4	3	5	3
Pipestone Applied Research	8,706	2.51%	38	7	7	17	18
Prairie Gold Farms-MN	4,458	1.81%	14	6	4	2	2
Prairie View LLC	24,478	5.07%	216	55	42	52	36
Ryan Weinkauf	2,616	0.88%	4	0	0	2	4
S&D Livestock	6,806	3.21%	38	4	9	17	13
Spronk Brothers	87,853	2.91%	444	95	125	109	111
The Pork Group	727	31.64%	40	12	7	5	4
<b>Total Inventory</b>	<b>233,946</b>						
<b>% Mortality</b>	<b>4.06%</b>						

# Monitoring at the Barn Level: Sow Farm

- Growing pig down stream from sow farm
- Sow farm weekly performance analysis
- Disease testing
- Bio-Security
- Animal welfare
- New animal introduction

**PIPESTONE®**

# Monitoring weekly health at sow farm level

## Mortality By Calendar Week

Pig Flow: Windy Plains

Start Year/Week: 2014/35

End Year/Week: 2014/38

Total Dead For Period:	136	39	38	25	34
% Dead For Period:	0.28%	0.08%	0.08%	0.05%	0.07%
% of Total Dead For Period:	100.00%	28.68%	27.94%	18.38%	25.00%

Production Year:  
Production Quarter

2014	2014	2014	2014
Q3	Q3	Q3	Q3
08/24/2014	08/31/2014	09/07/2014	09/14/2014
08/30/2014	09/06/2014	09/13/2014	09/20/2014

Producer	Site	Group	Group Type/Stage	Started	Current Group Inventory	Grp Start Date	Grp End Date	Week on Feed	# Dead to Date	Mort % to Date	# Dead for Report Period	35	36	37	38
GMC Marti Knoblock	Finisher Allison Sector	1414WP3WGMC	Wean to Finish	2,626	1,701	04/04/2014		25	84	3.20%	16	8	3	1	4
GMC Marti Knoblock	Mitchs/Home Place	1420WP3WGMC	Wean to Finish	2,951	2,904	05/16/2014		19	47	1.59%	13	3	10		
GMC Marti Knoblock	Duds/Montes	1427WP3WGMC	Nursery	2,881	2,859	07/03/2014		12	22	0.76%	4	0	1	3	0
GMC Marti Knoblock	Martys WTF	1427WP3WGMC-Op	Wean to Finish	1,014	1,007	06/30/2014		13	7	0.69%	3	1	1	1	0
GMC Marti Knoblock	GMC Nursery	1435WP3WGMC	Wean to Finish	2,102	2,100	08/26/2014		5	2	0.10%	2	0	0	2	0
Greg Boerboom	Boerboom	1412WP3WGB	Wean to Finish	2,589	2,576	03/19/2014		27	13	0.50%	0				
Greg Boerboom	Boerboom Kerkaert	1419WP3WGB	Wean to Finish	2,595	2,567	05/06/2014		21	28	1.08%	0				
Greg Boerboom	Boerboom Kerkaert	1425WP3WGB	Wean to Finish	2,602	2,586	06/19/2014		14	16	0.61%	0				
Greg Boerboom	Boerboom	1432WP3WGB	Wean to Finish	2,601	2,574	08/04/2014		8	27	1.04%	18	6	7	4	1
Mill Farms	DD Nursery to DD N Fin	1415WP3WMF-DD	Wean to Finish	2,199	2,162	04/11/2014		24	37	1.68%	8	1	1	5	1
Mill Farms	DD-Kack	1422WP3WMF-DD-K	Wean to Finish	2,198	2,187	05/26/2014		18	11	0.50%	0				
Mill Farms	DD Nursery to DD N Fin	1429WP3WMF-DD	Wean to Finish	2,201	2,188	07/14/2014		11	13	0.59%	4		2		2
Mill Farms	DD-Kack	1436WP3WMF	Wean to Finish	2,187	2,185	09/03/2014		3	2	0.09%	1		0	0	1
Pig Hill/Pro Ag	Flier Fin/ Griesse Fin	1417WPVR	Wean to Finish	2,400	2,353	04/25/2014		22	47	1.96%	14	1	4	2	7
Pig Hill/Pro Ag	Flier Finisher	1417WPVR- Flier FT	Finishing	2,093	2,056	06/05/2014		16	37	1.77%	14	1	4	2	7
Pig Hill/Pro Ag	Griesse Finisher	1417WPVR- Griesse	Finishing	300	297	06/05/2014		16	3	1.00%	0	0	0	0	0
Pig Hill/Pro Ag	VanRoekel Fin/Monen	1424WPVR	Wean to Finish	2,373	2,348	06/10/2014		16	25	1.05%	7	2	1	1	3
Pig Hill/Pro Ag	Monen Finisher	1424WPVR- Monen	Finishing	280	277	07/18/2014		10	3	1.07%	2	1	0	0	1
Pig Hill/Pro Ag	VanRoekel Finisher	1424WPVR- VanRoekel	Finishing	2,085	2,071	07/18/2014		10	14	0.67%	5	1	1	1	2
West Side Pork	Logan Point	1410WP3WSP-4	Wean to Finish	1,247	0	03/05/2014	08/29/2014	26	47	3.77%	0				
West Side Pork	Hoogendoorn	1411WP3WSP-5	Wean to Finish	2,401	0	03/10/2014	09/13/2014	27	73	3.04%	6	3	2	1	
West Side Pork	Rich	1423WP3WSP-6	Wean to Finish	1,152	1,139	06/02/2014		17	13	1.13%	4			1	3
West Side Pork	Logan Point	1430WP3WSP-1	Wean to Finish	1,255	1,250	07/21/2014		10	5	0.40%	5	1	1	1	2
West Side Pork	Hoogendoorn	1430WP3WSP-2	Wean to Finish	2,324	2,296	07/24/2014		9	28	1.20%	10	10	0	0	0

Breakdown: Periods , Databases: Alliance

	15609	15610	15622	15623	15630	15637	15644	15651	15658	15665	15672	ACUM
	15615	15622	15629		15636	15643	15650	15657	15664	15671	15678	
<b>SERVICE PERFORMANCE</b>												
Total services	277	322	248	313	291	277	256	285	253	277	279	
Percent repeat services	0.7	0.0	0.8	0.6	0.7	0.4	0.8	0.4	0.0	1.1	0.5	
Percent multiple matings	85.9	77.0	79.4	92.7	97.6	86.6	87.1	84.2	83.0	88.1	86.2	
Weaning-1st service interval	5.3	5.0	5.8	5.0	4.3	5.2	5.5	5.4	5.1	5.1	5.2	
Percent of served bred by 7 days	94.8	94.6	94.7	95.8	99.5	96.0	94.4	95.1	95.6	94.6	95.5	
Entry to 1st service interval	10.7	14.5	22.6	23.3	20.8	19.4	18.1	18.8	17.7	19.1	18.2	
<b>FARROWING PERFORMANCE</b>												
Farrowings	256	300	274	275	239	270	259	245	298	245	2661	
Avg parity farrowed	3.4	3.8	3.6	3.6	3.1	3.1	3.5	3.5	3.5	3.5	3.5	
Total born per farrow	14.9	15.3	15.1	15.0	15.0	15.1	15.2	15.3	15.1	15.0	15.1	
Liveborn per farrow	13.9	14.0	13.9	13.8	13.9	14.1	14.1	14.0	14.0	14.0	14.0	
% Stillborn	3.7	5.1	4.7	5.5	4.7	4.1	4.0	5.1	4.3	4.1	4.5	
% Mummies	3.3	3.3	3.2	2.3	2.6	2.8	2.7	3.3	3.2	2.6	2.9	
Farrowing rate	97.7	95.2	95.5	93.2	94.1	92.8	93.8	93.5	94.3	95.7	94.6	
Adjusted farrowing rate	98.5	96.5	95.8	97.2	97.2	94.1	94.9	94.6	95.2	96.1	96.0	
Farrowing interval	143.4	141.7	142.4	143.4	140.7	142.3	142.2	142.3	141.6	141.6	142.2	
Abortions	3	2	3	1	1	2	0	6	2	0	20	
Litters / mated female / year	2.52	2.53	2.51	2.51	2.52	2.49	2.49	2.51	2.50	2.50	2.51	
<b>WEANING PERFORMANCE</b>												
Litters weaned	306	218	330	331	251	249	326	205	300	300	2816	
Pigs weaned in period	3506	2523	3837	3909	2904	2902	3809	2407	3494	3548	32839	
Females weaned or nursed off	289	202	308	312	236	231	309	186	281	278	2632	
Pigs weaned per female	12.49	12.43	12.42	12.44	12.20	12.44	12.44	12.15	12.91	12.65	12.47	
Average weaning age	20.3	19.1	19.5	18.7	19.4	20.0	20.2	21.2	21.4	20.5	20.0	
Avg weight/weaned pig	12.8	12.1	12.3	11.7	11.9	12.4	12.8	12.9	13.0	12.9	12.5	
Prewaning mortality rate (period)	10.6	10.4	10.2	10.9	11.9	10.9	9.5	14.4	8.9	10.3	10.7	
Weaned/Mated Female/Year	31.42	31.48	31.15	31.23	30.77	31.00	30.94	30.48	32.27	31.68	31.28	
Lifetime Weaned Pigs/Removed	52.25	74.06	66.64	57.14	62.59	39.75	64.01	54.59	41.89	51.87	58.15	
<b>POPULATION</b>												
Ending total female inventory	5700	5720	5732	5703	5721	5786	5760	5723	5736	5689	5689	
Average parity	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.5	
Avg total female inventory	5678.9	5714.4	5731.7	5720.7	5711.1	5749.4	5770.9	5740.1	5714.9	5697.6	5723.0	
Females entered	76	99	76	42	93	69	56	59	93	29	692	
Females culled	56	75	62	67	70	0	78	89	79	71	647	
Female deaths	3	4	2	4	5	4	4	7	1	5	39	
Ending male inventory	40	40	40	40	40	40	39	39	39	42	42	
Replacement rate	69.8	90.3	69.1	38.3	84.9	62.6	50.6	53.6	84.9	26.5	63.0	
Culling rate	51.4	68.4	56.4	61.1	63.9	0.0	70.5	80.8	72.1	65.0	58.9	
Death rate	2.8	3.6	1.8	3.6	4.6	3.6	3.6	6.4	0.9	4.6	3.6	



	15609	15616	15623	15630	15637	15644	15651	15658	15665	15672	ACUM
	15615	15622	15629	15636	15643	15650	15657	15664	15671	15678	ACUM
SERVICE PERFORMANCE											
Total services	8278	8414	8191	8517	8504	8196	8370	8579	8391	8144	83584
Percent repeat services	3.5	3.9	4.2	3.8	3.8	3.9	4.2	4.9	4.8	3.7	4.1
Percent multiple matings	94.2	94.0	94.5	93.5	94.7	95.0	94.6	95.6	94.8	94.0	94.5
Weaning-1st service interval	6.5	6.5	6.5	6.5	6.4	6.0	6.2	6.1	5.8	6.1	6.3
Percent of served bred by 7 days	88.3	88.9	88.8	88.9	89.4	90.5	90.6	90.9	92.6	91.2	90.0
Entry to 1st service interval	15.9	17.0	16.2	14.7	14.3	12.8	15.2	15.1	12.6	14.3	14.8
FARROWING PERFORMANCE											
Farrowings	7900	7501	7494	7889	7459	7666	7538	7491	7926	7283	76147
Avg parity farrowed	3.6	3.5	3.6	3.6	3.6	3.5	3.6	3.7	3.6	3.6	3.6
Total born per farrow	14.5	14.4	14.4	14.4	14.5	14.3	14.4	14.3	14.4	14.4	14.4
Liveborn per farrow	13.1	13.1	13.0	12.9	12.9	12.9	13.0	12.9	12.9	13.0	13.0
% Stillborn	6.7	6.5	6.6	6.9	7.3	6.5	6.3	6.0	6.5	6.7	6.6
% Mummies	3.1	3.0	3.2	3.2	3.8	3.7	3.5	3.8	3.6	3.7	3.5
Farrowing rate	90.6	90.6	90.7	91.2	90.2	91.7	91.0	91.2	90.8	90.7	90.9
Adjusted farrowing rate	93.5	93.7	93.4	94.1	93.1	93.9	93.4	93.2	93.7	93.0	93.5
Farrowing interval	145.0	144.4	143.4	143.4	143.2	142.9	143.1	142.8	142.8	142.8	143.4
Abortions	86	76	115	121	112	70	77	107	87	89	940
Litters / mated female / year	2.48	2.48	2.49	2.48	2.49	2.49	2.50	2.51	2.51	2.53	2.50
WEANING PERFORMANCE											
Litters weaned	7325	7407	7922	7743	7516	7728	7756	7646	7671	7741	76455
Pigs weaned in period	81924	82304	88846	87288	83781	86184	86933	84228	84781	87501	853770
Females weaned or nursed off	7290	7279	7814	7695	7487	7710	7696	7532	7620	7640	75763
Pigs weaned per female	11.28	11.21	11.32	11.40	11.23	11.14	11.34	11.13	11.20	11.43	11.27
Average weaning age	19.6	19.5	19.6	19.6	19.7	19.6	19.7	19.8	19.7	19.6	19.6
Avg weight/weaned pig	13.0	13.1	13.2	13.1	13.2	13.2	13.3	13.2	13.1	13.0	13.2
Prewaning mortality rate (period)	13.7	14.0	12.9	12.5	13.9	14.0	12.7	13.5	13.2	12.4	13.3
Weaned/Mated Female/Year	28.00	27.81	28.16	28.32	27.93	27.70	28.32	27.91	28.16	28.93	28.13
Lifetime Weaned Pigs/Removed	49.40	47.89	44.68	46.90	47.61	46.79	48.84	46.83	46.69	50.96	47.66
POPULATION											
Ending total female inventory	165001	165032	164892	164901	164770	164675	164943	164589	164534	164568	164568
Average parity	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.9
Avg total female inventory	164712.6	164865.0	164982.9	164837.9	164823.1	164740.0	164863.7	164710.7	164584.1	164517.0	164763.7
Females entered	1906	1511	1371	1499	1592	1333	1751	1421	1623	1702	15709
Females culled	1193	1270	1223	1225	1440	1183	1265	1572	1432	1416	13219
Female deaths	255	208	289	265	286	230	219	208	245	247	2452
Ending male inventory	1018	1006	992	1007	993	1016	995	978	973	970	970
Replacement rate	60.3	47.8	43.3	47.4	50.4	42.2	55.4	45.0	51.4	53.9	49.7
Culling rate	37.8	40.2	38.7	38.8	45.6	37.4	40.0	49.8	45.4	44.9	41.8
Death rate	8.1	6.6	9.1	8.4	9.0	7.3	6.9	6.6	7.8	7.8	7.8
Avg NPD / female / year	39.0	39.5	38.1	38.4	37.6	37.1	36.9	35.8	34.8	33.4	37.0

# Rope testing piglets at the sow farm

## **Alliance Family Farms**

PEDV

3/14/2014	4	4	0	0%	Saliva
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PRRS

2/7/2014	4	4	0	0%	Saliva
3/14/2014	4	4	0	0%	Saliva
4/15/2014	4	4	0	0%	Saliva
5/1/2014	4	4	0	0%	Saliva
6/10/2014	4	4	0	0%	Saliva
8/11/2014	4	4	0	0%	Saliva
9/10/2014	4	4	0	0%	Saliva

SIV


2/7/2014	4	4	4	100%	Saliva	
3/14/2014	4	4	4	100%	Saliva	
4/15/2014	4	4	4	100%	Saliva	H1N1
5/1/2014	4	4	4	100%	Saliva	H1N1
6/10/2014	4	4	4	100%	Saliva	
8/11/2014	4	4	4	100%	Saliva	
9/10/2014	4	4	0	0%	Saliva	

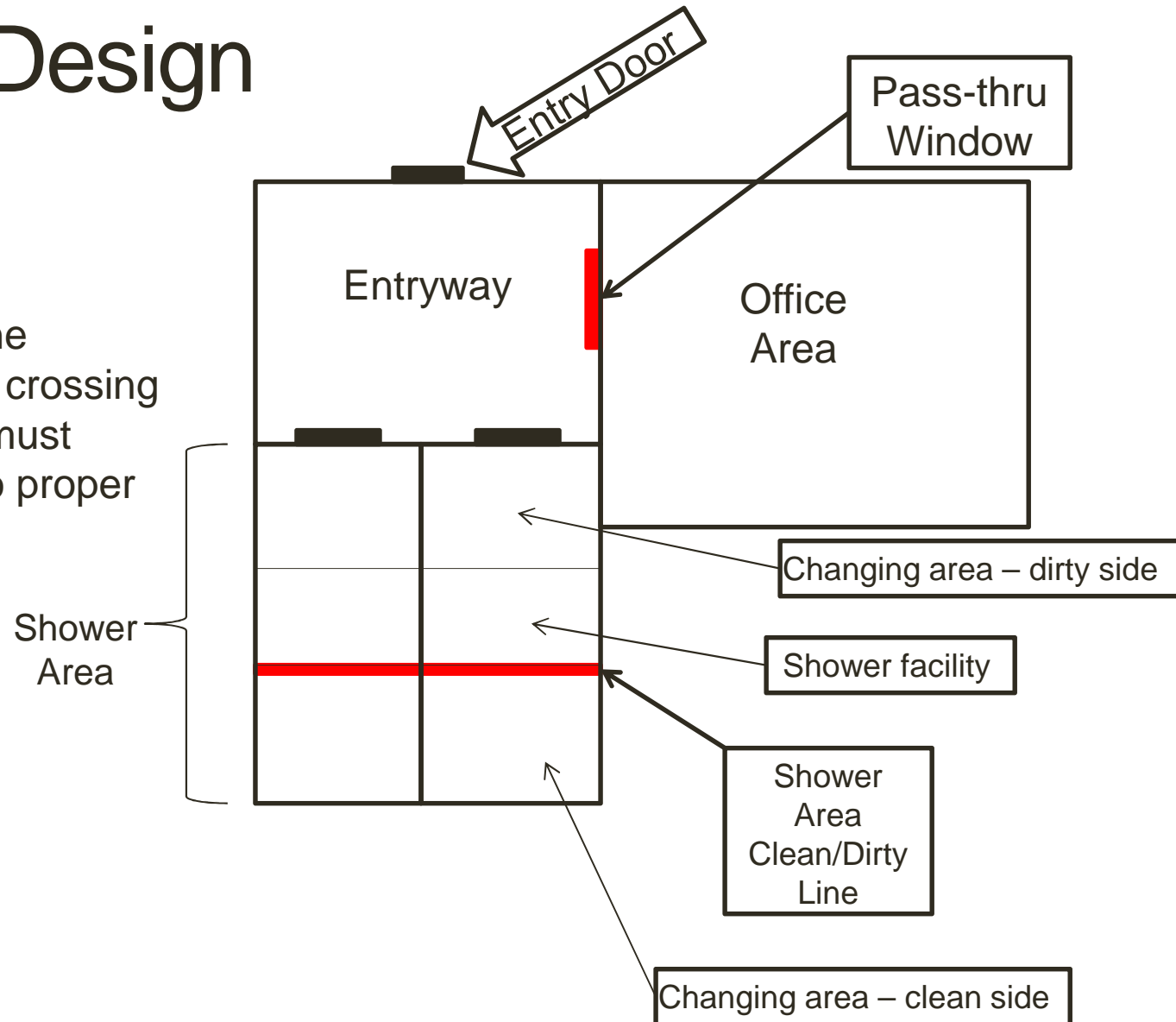
TGE

3/14/2014	4	4	0	0%	Saliva
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# Office Design

-  Signifies the Clean/Dirty line
- Anyone crossing this line must adhere to proper protocols



# Bio-Security - Filtering









## Mandatory biosecurity protocol training and testing for all farm staff



### October 2014 Biosecurity Quiz

Name \_\_\_\_\_ Barn \_\_\_\_\_ Date \_\_\_\_\_

**1. What is the maximum time items may be left in the D/D room after disinfecting?**

36 hours

**2. According to the bagged feed D/D protocol how long should feed be held in the D/D room?**

24 hours

**3. What is the Semen Delivery Protocol?**

Driver wear disposable foot wear, remove double bagged, placed directly in fridge, lock door, dispose of foot wear, driver will call farm

**4. Feed spills totaling 30 lbs or less should be brought into the farm and fed to the animals? True or False?**

False – Feed spills totaling 30 lbs or less should be placed in the garbage dumpster.

**5. When moving sows of gilts, a person should never move more than how many gilts or sows at a time?**

5 at a time with a sort board

**6. When should hearing protection be worn?**

Pressure washing, walking boar, dropping feed, blowing feed, giving shots, stun gun, generator, drawing blood

**7. Pit Pumpers are not required to sign the outside contractor agreement at the barn. True or False?**

False

**8. An Employee who is dressed in whites is taking out the garbage through the mortality removal area and accidentally steps outside. What process should be followed after the breach has taken place?**

Sign breach log, D/D in white boots again, throw away white coveralls and gloves and shower in again

**9. When washing the load out, how many times should you use synergize?**

Twice, once before you power wash, and once after you power wash.

**10. List 4 of the items that the biosecurity team looks for in the farm entryway during an audit?**

Dirt floor, shoes in correct place, sign in book being used, outsiders swabbing in, window,



Biosecurity Audit - Pipestone System		PIPESTONE®		VETERINARY SERVICES	
		Yes	No	Comments	
Site Exterior Checklist					
Vehicles parked in appropriate location					
All doors to farm are locked					
Site is mowed properly					
Rodent bait boxes properly placed					
Rodent bait boxes serviced within last 30 days					
No feed spills - all bin pads are clean					
All trash and debris are picked up					
Garbage dumpster is placed away from barn					
Compost Shed is properly maintained					
Barn contact numbers posted on outside door					
Entryway and Shower Area Checklist		Yes	No	Comments	
Pass-through window properly managed					
No cell phones in entryway or on counter					
Visitor expectations sheet posted in window					
Biosecurity update is posted					
Sign in sheet properly utilized					
Entryway and shower area is clean					
Shoes stored properly					
Outside (rendering) clothes and boots stored properly					
Disposable boots and gloves available					
Evidence of proper shower in procedures					
No towels on dirty side of shower					
Farm Interior Checklist		Yes	No	Comments	
New employee biosecurity training - documentation					
Protocols posted in shower clean and dirty side					
Lunches enter "double bagged"					
No raw pork on farm					
Outside contractor agreement is in use per protocol					
Semen stored in D/D room until test results available					
D/D room is washed and clean					
Coveralls, Boots and Gloves in D/D room					
Disinfectant applicator in D/D room					
D/D room is properly utilized					
D/D status sign is present					
Red line painted at each clean/dirty line					
Wear chute/lean area is washed and clean					
Protocols posted near chute/loadout					
Rodent bait boxes properly placed					
Rodent bait boxes serviced within last 30 days					
No insect populations or bites on sows					
Thresholds intact on all exterior doors					
Protocols posted is designated dead removal areas					
Deaths removed at end of day					
Compost area contacted at end of day					
Garbage removed at end of day					
Garbage dumpster contacted at end of day					
Isolation room accessed last thing of day					
Strict quarantine observed in designated isolation rooms					
Audited By: _____					
Date: _____					

Biosecurity Audit - Pipestone System		PIPESTONE®		VETERINARY SERVICES	
		Yes	No	Comments	
Site Exterior Checklist					
Vehicles parked in appropriate location					
All doors to farm are locked					
Site is mowed properly					
Rodent bait boxes properly placed					
Rodent bait boxes serviced within last 30 days					
No feed spills - all bin pads are clean					
All trash and debris are picked up					
Garbage dumpster is placed away from barn					
Compost Shed is properly maintained					
Barn contact numbers posted on outside door					
Entryway and Shower Area Checklist		Yes	No	Comments	
Pass-through window properly managed					
No cell phones in entryway or on counter					
Visitor expectations sheet posted in window					
Biosecurity update is posted					
Sign in sheet properly utilized					
Entryway and shower area is clean					
Shoes stored properly					
Outside (rendering) clothes and boots stored properly					
Disposable boots and gloves available					
Evidence of proper shower in procedures					
No towels on dirty side of shower					
Farm Interior Checklist		Yes	No	Comments	
New employee biosecurity training - documentation					
Protocols posted in shower clean and dirty side					
Lunches enter "double bagged"					
No raw pork on farm					
Outside contractor agreement is in use per protocol					
Semen stored in D/D room until test results available					
D/D room is washed and clean					
Coveralls, Boots and Gloves in D/D room					
Disinfectant applicator in D/D room					
D/D room is properly utilized					
D/D status sign is present					
Red line painted at each clean/dirty line					
Wear chute/lean area is washed and clean					
Protocols posted near chute/loadout					
Rodent bait boxes properly placed					
Rodent bait boxes serviced within last 30 days					
No insect populations or bites on sows					
Thresholds intact on all exterior doors					
Protocols posted is designated dead removal areas					
Deaths removed at end of day					
Compost area contacted at end of day					
Garbage removed at end of day					
Garbage dumpster contacted at end of day					
Isolation room accessed last thing of day					
Strict quarantine observed in designated isolation rooms					
Audited By: Hannah Myers					
Date: 9.22.14					



# Animal Welfare

## ANIMAL WELFARE TOP TEN AUDIT

FARM: \_\_\_\_\_

DATE: \_\_\_\_\_

	Acceptable	Not Acceptable
<b>No willful acts of neglect or abuse (requires follow up)</b>		
No signs or observation of physical abuse to animals (malicious hitting with a closed hand/unapproved object or kicking sows is a NON-NEGOTIABLE)		
No obvious signs of husbandry negligence (i.e. boar harness left on overnight; P2+ sows or large boars in gilt crates)		
<b>Access to water</b>		
Animals have access to water at least twice per day (by break and at end of day)		
No feed build up in water trough to prevent water flow		
<b>Access to feed</b>		
Animals have access to correct amount of feed		
No feed outage - if happened, adequate plan to resolve		
<b>Euthanasia</b>		
Following the "Two Day Rule". Need documentation		
Piglets are euthanized in proper location and with the correct designated method for the age of the pig (This is a NON-NEGOTIABLE)		
Electrical euthanasia record of use is filled out and up-to-date		
<b>Treatments</b>		
Clear, complete and accurate treatment records		
No adult animals present that need treatment but have not been treated		
<b>Less than 1% of Herd has BCS1</b>		
Check wean & cull row: # identified/total herd population		
Animals with BCS1 are identified and addressed:		
• feed increased		
• reduce competition if in a pen		
• address secondary issues (pneumonia, lameness)		
• identify as cull, "skip" or euthanize		
<b>Adult Animal Handling</b>		
Animal handler(s) has calm, professional temperament		
Not using gate rod or other inappropriate tools to aid in moving		
Animals are not slipping - dry floors/drying agent applied		

### Piglet handling

Do not throw or toss pigs (this is a NON-NEGOTIABLE)

Feet touch ground before releasing

Do not hold more than one pig while processing

### Environment

Heat lamps in newly farrowed rooms are working (≥90% lamps working)

Farrowing crates that have holes in flooring are not in use.

### Mortality Removal

Mortality is removed from individual maternity pens & farrowing rooms to the mortality storage area daily prior to taking morning break

Mortality is put in storage containers and storage containers are covered at all times

Mortality is removed from mortality storage area in a timely fashion

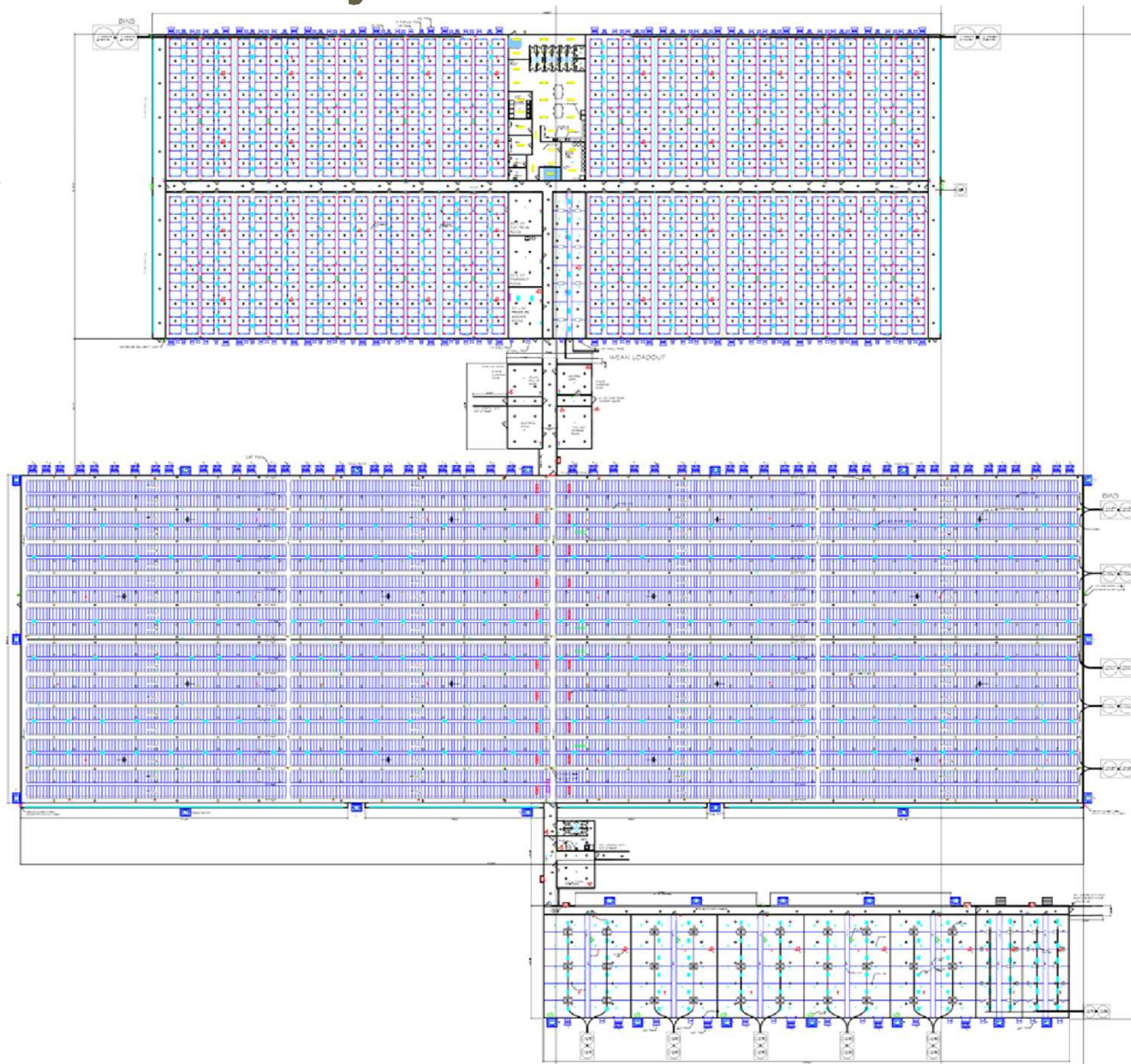
Pass Fail (Circle One)

Comments:

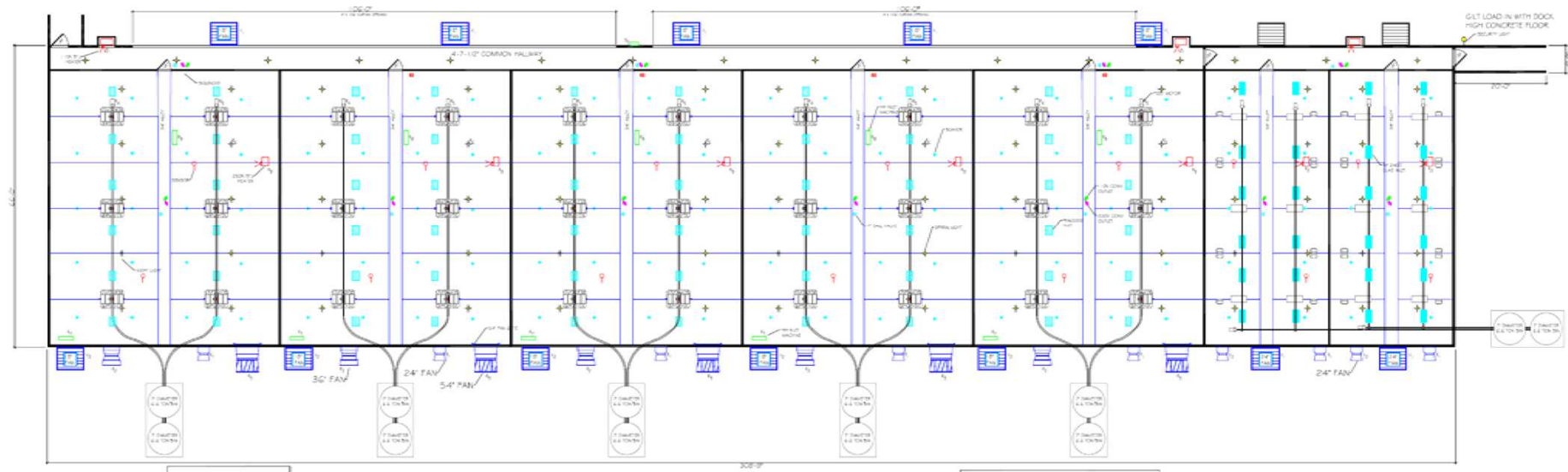
AUDITOR: \_\_\_\_\_

# Sow Farm Layout:

.D  
EX-



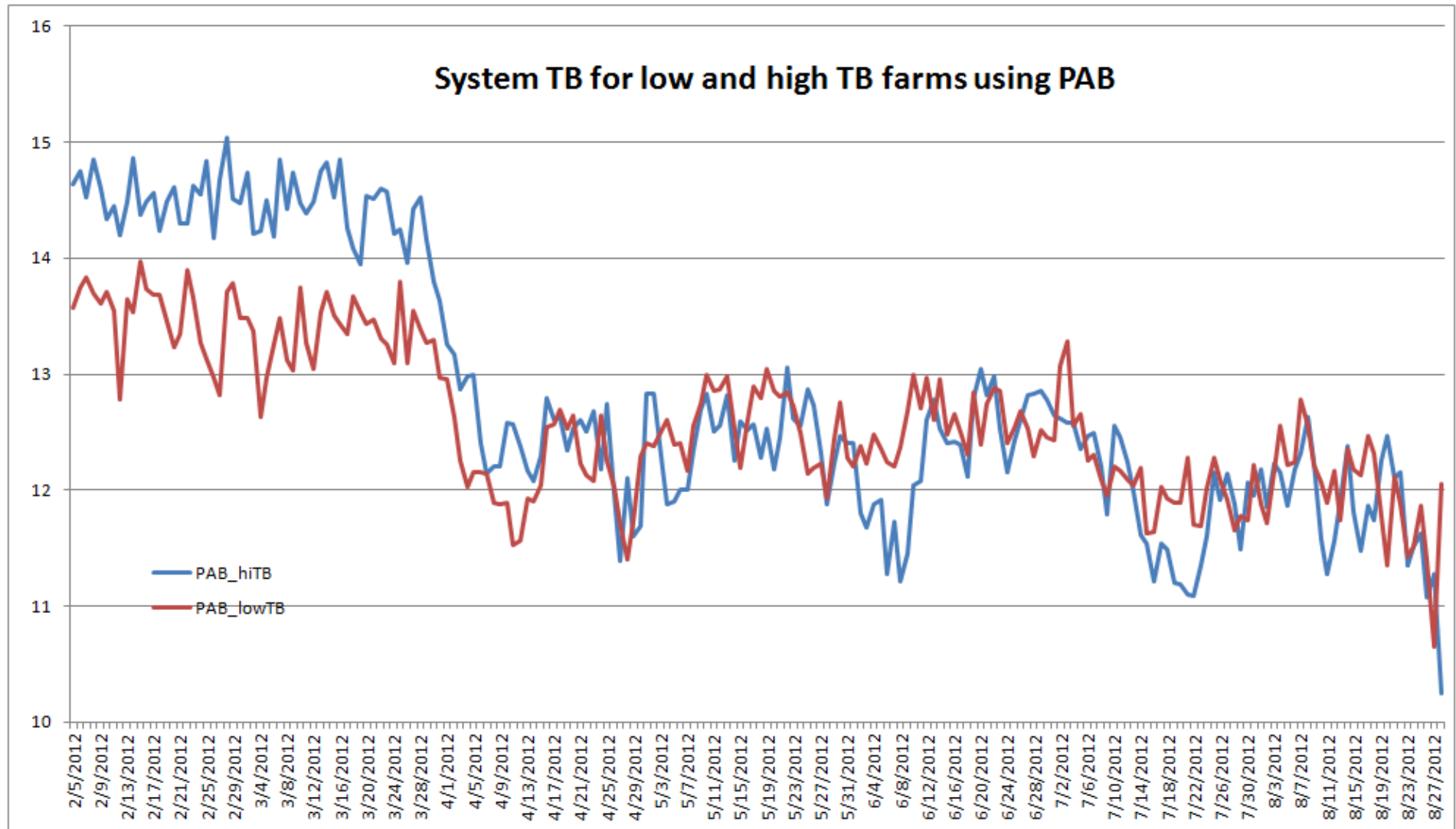
# Gilt Isolation:



# Pipestone Gilt Isolation and Quarantine Management

1. All farms will implement an isolation and quarantine procedure on each group of incoming replacement breeding groups
2. All incoming groups will be tested for PRRS, PED, TGE, SDCV, and influenza virus. Minimum standards for testing:
  - Arrival (day of arrival or following morning)
    - 4 OF samples:
      - PRRS PCR and ELISA, (OF ELISA's on isoweans/nursery age pigs may result in false positives. Only run ELISA on pigs >12 weeks of age)
      - PEDV PCR
      - Influenza PCR
      - TGE PCR
      - Swine Delta Coronavirus PCR
    - 10 serum samples:
      - PRRS PCR and ELISA
      - PEDV IFA
  - Day 14 post arrival (minimum), Prefer 21-28 days
    - 4 OF samples:
      - PRRS PCR and ELISA
      - PEDV PCR
      - TGE PCR
      - Swine Delta Coronavirus PCR
    - 20 serum samples:
      - PRRS PCR and ELISA
      - PEDV IFA
  - No PRRS vaccine exposure to incoming gilts until after animals have cleared 2<sup>nd</sup> PRRS test
3. Isolation
  - All groups will remain isolated from the resident breeding herd for 28 days following arrival
  - Staff will utilize SI/SO or Danish entry to access animals in quarantine during this time
  - Observe for clinical signs of diseases other than PRRS
4. Farm Veterinarian should be involved in all decisions/directives to release gilts from on farm quarantine
5. Feed medication may be used in isolation following arrival
6. Feedback and vaccination protocols may be implemented in isolation, as appropriate. No feedback should be administered until after animals have cleared quarantine testing

# Monitoring at the Boar Stud Level





# Monitoring at the Boar Stud Level

## Pipestone System Semen Analysis

Week 38-2014

Average of %Fail	StudID											
	1	2	3	4	5	6	7	20	22	23	24	Total
8/18/2013 - 8/31/2013	0%		0%	13%	0%	13%	31%	19%				11%
9/1/2013 - 9/14/2013	25%		0%	50%	0%	38%	50%	38%				29%
9/15/2013 - 9/28/2013	6%		13%	6%	0%	6%	19%	13%				9%
9/29/2013 - 10/12/2013	0%		0%	25%	0%	19%	38%	6%				15%
10/13/2013 - 10/26/2013	13%		6%	13%	25%	25%	13%	0%				14%
10/27/2013 - 11/9/2013	19%		6%	0%	13%	6%	38%	0%				12%
11/10/2013 - 11/23/2013	0%		13%	0%	13%	63%	38%	6%				16%
11/24/2013 - 12/7/2013	0%		6%	0%	19%	25%	38%					14%
12/8/2013 - 12/21/2013	13%		0%	25%	25%	13%	50%	25%				21%
1/5/2014 - 1/18/2014	13%		0%	13%	13%		25%	25%				14%
1/19/2014 - 2/1/2014	0%			19%	25%	19%	25%	6%				15%
2/2/2014 - 2/15/2014	25%		13%	25%	31%	13%	19%	19%				21%
2/16/2014 - 3/1/2014	0%			13%	25%	13%	38%					18%
3/2/2014 - 3/15/2014	0%	44%	13%	6%	19%	19%		6%				15%
3/16/2014 - 3/29/2014	6%	38%	6%	0%	25%	19%		25%				15%
3/30/2014 - 4/12/2014	13%	50%	25%	19%	38%	25%		31%	44%			30%
4/13/2014 - 4/26/2014	19%	31%	13%	25%	13%	44%		25%				24%
4/27/2014 - 5/10/2014	0%		13%	0%	13%	50%						15%
5/11/2014 - 5/24/2014	19%	50%		6%	25%	6%		25%	19%			21%
5/25/2014 - 6/7/2014	25%	25%		0%	13%			25%	0%			14%
6/8/2014 - 6/21/2014	19%	63%	38%	6%	25%	0%		38%		19%		23%
6/22/2014 - 7/5/2014	31%	44%	13%	38%	25%	31%		25%		6%	38%	27%
7/6/2014 - 7/19/2014	38%	31%	25%	19%	8%	13%	31%	13%		0%	38%	20%
7/20/2014 - 8/2/2014	38%	38%	0%	31%	13%	19%	56%	31%		19%	56%	33%
8/3/2014 - 8/16/2014	19%	63%	25%	31%	25%	44%	50%	31%		25%	6%	32%
8/17/2014 - 8/30/2014	13%	56%	38%	50%	0%	38%	38%	63%		44%	46%	41%
8/31/2014 - 9/13/2014	44%	50%	0%	50%	19%	25%	50%	38%	38%	31%	50%	38%
9/14/2014 - 9/18/2014	25%	13%	0%	0%	25%	13%	13%			0%		11%
<b>Total</b>	<b>12%</b>	<b>42%</b>	<b>17%</b>	<b>17%</b>	<b>22%</b>	<b>17%</b>	<b>30%</b>	<b>20%</b>	<b>27%</b>	<b>19%</b>	<b>41%</b>	<b>20%</b>

# Pipestone Systems Health Update

## System Farms

<i>Farm</i>	<i>Herd Vet</i>	<i>Supervisor</i>	<i>Manager</i>	<i>Farm</i>	<i>Effective Date</i>	
<b>Level-1</b>	<b>PRRS Negative Mult</b>	<b>Downtime Nights: 3 in, 1 within</b>				<b>PRRS Level</b>
GJW	Joel Nerem	N/A			10/27/2010	Level-1
PIC-Pederson	Barry Kerkaert	N/A			6/10/2014	Level-1
PIC-Tribwasser	Barry Kerkaert	N/A			6/10/2014	Level-1
Prairieview Pork 1	Barry Kerkaert	Joe Hadley	Steve Langner	605.270.2119	11/21/2013	Level-1
Prairieview Pork 2	Barry Kerkaert	Joe Hadley	Steve Langner	605.270.2119	11/21/2013	Level-1
Prairieview Pork 3	Barry Kerkaert	Joe Hadley	Steve Langner	605.270.2119	11/21/2013	Level-1
Prairieview Pork 4	Barry Kerkaert	Joe Hadley	Steve Langner	605.270.2119	11/21/2013	Level-1
Summit	Joel Nerem	N/A	Nancy Stoltenber		3/1/2007	Level-1
<b>Level-2</b>	<b>PRRS Negative Comm</b>	<b>Downtime Nights: 2 in, 1 within</b>				<b>PRRS Level</b>
Alliance Family Farms	Adam Schelkopf	Joe VanMoer	Jim Olson	605-532-2033	12/17/2012	Level-2
Coyote Ridge	Joel Nerem	Dan Rodas	Don Baier	605-337-9517	9/4/2013	Level-2
Dakota Superior	Gerald Kennedy	Eric Vander Plaats	Monte Hickman	605-997-5518	10/25/2011	Level-2
Farmers Pork	Carissa Odland	Joe VanMoer	Jim Wolf	605-425-3042	4/14/2011	Level-2
Fox Run	Luke Minion	Dan Rodas	Aaron Ambrosy		12/19/2012	Level-2
Grassland Pork	Emily McDowell	Jeff Kinney	Eric Ries	563-590-3196	1/19/2012	Level-2
Horseshoe Hill	Carissa Odland	Joe VanMoer	Mike Staples	402-388-2476	10/10/2013	Level-2
Jackrabbit Family Pork	Barry Kerkaert	Dan Rodas	Brian Kroeger		5/17/2013	Level-2
North View	Carissa Odland	Joe VanMoer	Mike Neeman	402-373-2889	10/22/2012	Level-2
Prairie Gold	Cara Haden	Jeff Kinney	Matt Zittleman	319-935-3435	10/11/2013	Level-2
R&F MO, LLC	Steve Menke	Steve Kruse	Nick Palmgren	573-387-4809	6/20/2013	Level-2
Salt River	Steve Menke	Steve Kruse	Donnie Moore		11/21/2013	Level-2
Shetek	Gerald Kennedy	Joe VanMoer	Dave Rialson	507-859-5133	9/26/2012	Level-2
Shetek- McCoy	Gerald Kennedy	Joe VanMoer	Dave Railson		7/3/2012	Level-2
Shetek-Nooman GDU	Gerald Kennedy	Joe VanMoer	Dave Rialson		7/3/2012	Level-2
Silver Top	Emily McDowell	Jeff Kinney	Justin Duffy	319-634-3471	4/18/2012	Level-2
Skyline	Bryan Myers	Steve Kruse	Geralee Hershey	319-474-2258	9/15/2013	Level-2
Stormy Hollow, LLC	Steve Menke	Steve Kruse	Chris Herst	573-387-4300	6/20/2013	Level-2
Windy Plains	Barry Kerkaert	Joe VanMoer	Darin Weets	605-532-2011	3/1/2007	Level-2



# Monitoring at the system level

- Health Level Pyramid

Level	Farm ID	Herd Size	Herd Vet	Status Date	Days in Level
Level-2	Windy Plains	3329	Barry Kerkaert	3/1/2007	2764
Level-2	Farmers Pork	3053	Carissa Odland	4/14/2011	1259
Level-2	Dakota Superior	3281	Gerald Kennedy	10/25/2011	1065
Level-2	Grassland Pork	2750	Emily McDowell	1/19/2012	979
Level-2	Silver Top	2846	Emily McDowell	4/18/2012	889
Level-2	Shetek	3058	Gerald Kennedy	9/26/2012	728
Level-2	North View	1332	Carissa Odland	10/22/2012	702
Level-2	Alliance Family Farms	5591	Adam Schelkopf	12/17/2012	646
Level-2	Fox Run	5158	Luke Minion	12/19/2012	644
Level-2	Jackrabbit Family Pork	5236	Barry Kerkaert	5/17/2013	495
Level-2	Stormy Hollow, LLC	2900	Steve Menke	6/20/2013	461
Level-2	R&F MO, LLC	2915	Steve Menke	6/20/2013	461
Level-2	Coyote Ridge	3387	Joel Nerem	9/4/2013	385
Level-2	Skyline	5275	Bryan Myers	9/15/2013	374
Level-2	Horseshoe Hill	1296	Carissa Odland	10/10/2013	349
Level-2	Prairie Gold	2792	Cara Haden	10/11/2013	348
Level-2	Salt River	6258	Steve Menke	11/21/2013	307
Level-3	Twin Rock	5024	Scott VanderPoe	10/9/2012	715
Level-3	Legend	5215	Joel Nerem	10/22/2012	702
Level-3	Buffalo Run	3127	Spencer Wayne	11/6/2012	687
Level-3	Pheasant Run	3105	Spencer Wayne	7/8/2013	443
Level-3	Ten Brook 1	2500	Scott Dee	8/22/2013	398
Level-3	Hawkeye-9	3400	Bryan Myers	10/3/2013	356
Level-3	Blue Stem	3478	Carissa Odland	10/11/2013	348
Level-3	Buttercup	3263	Gordon Spronk	10/31/2013	328
Level-3	Hawkeye-7	3550	Bryan Myers	1/2/2014	265
Level-3	Deer Run Pork	2977	Emily McDowell	1/3/2014	264
Level-3	Hawkeye-1	3230	Joel Nerem	1/23/2014	244
Level-3	Hawkeye-3	3000	Gordon Spronk	6/6/2014	110
Level-3	New Prairie	1370	Barry Kerkaert	8/11/2014	44
Level-3	Hawkeye-4	3300	Gordon Spronk	9/10/2014	14
Level-3	HIAWATHA	2201	Scott VanderPoe	9/16/2014	8
Level-4	Renville Run	1327	Carissa Odland	5/22/2012	855
Level-4	Cougar Run 1	5599	Bryan Myers	8/2/2012	783
Level-4	Calumet	1457	Adam Schelkopf	11/1/2012	692
Level-4	Nokomis-Winnewissa	3040	Gerald Kennedy	3/25/2013	548
Level-4	Hawkeye-2	3200	Joel Nerem	6/5/2013	476
Level-4	Cougar Run 2	2811	Bryan Myers	11/27/2013	301
Level-4	Rosewood	3468	Gordon Spronk	4/15/2014	162
Level-4	Ten Brook 2	2500	Scott Dee	4/21/2014	156
Level-4	River Valley	1761	Spencer Wayne	6/3/2014	113
Level-4	Sleepy Hollow	2906	Jeff Blythe	6/17/2014	99
Level-4	WAPSI	1272	Cara Haden	6/17/2014	99
Level-4	Deer Ridge	1500	Todd Williams	7/1/2014	85
Level-4	Fox Ridge Pork	1374	Todd Williams	7/18/2014	68
Level-4	Hawkeye-6	3750	Gordon Spronk	9/4/2014	20
Level-5	Whitetail Run	3178	Gerald Kennedy	5/29/2014	118
Level-5	Eagle Ridge	3256	Cara Haden	7/8/2014	78
PEDV	Schmitz Grain Farm	2504	Barry Kerkaert	12/8/2013	290
PEDV	Lyon-One	1500	Spencer Wayne	1/30/2014	237
PEDV	Classic Farms	2965	Luke Minion	4/28/2014	149
PEDV	Prairieview Pork	2721	Spencer Wayne	5/19/2014	128
PEDV	Hillcrest Pork	1584	Todd Williams	5/27/2014	120
PEDV	Ten Brook 3	3041	Scott Dee	6/2/2014	114
PEDV	Ducladel	2514	Bryan Myers	9/8/2014	16

# Pipestone System Biosecurity Level Update

Week 2014-38

Sum of Percent	Level						
Row Labels	Level-2	Level-3	Level-4	Level-5	PEDV	TGEV	Grand Total
2014-19	28.3%	18.9%	22.6%	5.7%	22.6%	1.9%	100.0%
2014-20	28.3%	18.9%	22.6%	5.7%	22.6%	1.9%	100.0%
2014-21	28.3%	18.9%	20.8%	5.7%	24.5%	1.9%	100.0%
2014-22	28.3%	17.0%	20.8%	5.7%	26.4%	1.9%	100.0%
2014-23	27.8%	18.5%	20.4%	5.6%	27.8%		100.0%
2014-24	27.8%	18.5%	20.4%	5.6%	27.8%		100.0%
2014-25	27.8%	18.5%	24.1%	1.9%	27.8%		100.0%
2014-26	27.8%	18.5%	24.1%	1.9%	27.8%		100.0%
2014-27	27.8%	18.5%	24.1%	1.9%	27.8%		100.0%
2014-28	29.1%	21.8%	25.5%	5.5%	18.2%		100.0%
2014-29	29.1%	21.8%	27.3%	3.6%	18.2%		100.0%
2014-30	29.1%	21.8%	27.3%	3.6%	18.2%		100.0%
2014-31	29.1%	21.8%	29.1%	3.6%	16.4%		100.0%
2014-32	29.1%	21.8%	29.1%	3.6%	16.4%		100.0%
2014-33	30.9%	23.6%	27.3%	3.6%	14.5%		100.0%
2014-34	32.7%	23.6%	27.3%	3.6%	12.7%		100.0%
2014-35	32.7%	23.6%	27.3%	5.5%	10.9%		100.0%
2014-36	32.7%	23.6%	29.1%	3.6%	10.9%		100.0%
2014-37	30.9%	25.5%	27.3%	3.6%	12.7%		100.0%
2014-38	30.9%	27.3%	25.5%	3.6%	12.7%		100.0%

# System Filter Farm Status

**PRRS RISK  
SCORE**

**1 = Low**

**2 = Med**

**3 = High**

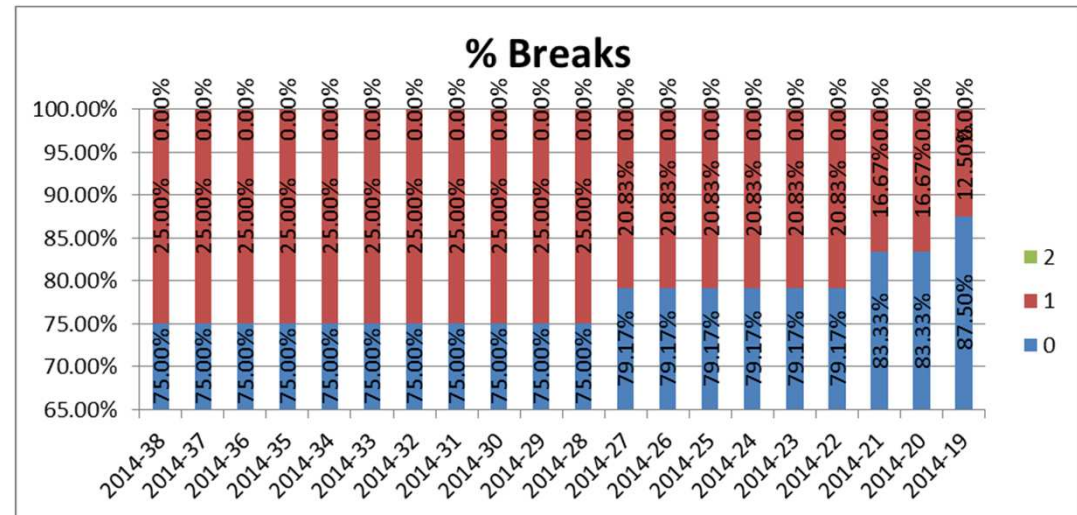
Week 2014-38

Farm	PRRS Level	PEDV	TGEV	Initial Filter Date	Total Days Filtered	PRRS Risk Score	Last PRRS Date	Days Since PRRS	Breaks in Last 12 Months	Filter Change Date	Filter Age in Months
Hawkeye-2	Level-4			8/1/2008	2244	3	9/24/2012	729	0	8/30/2013	12.79
Hawkeye-7	Level-3			11/1/2008	2152	3	11/20/2012	672	0	2/1/2013	19.69
<b>Rosewood</b>	<b>Level-4</b>			<b>8/1/2009</b>	<b>1879</b>	<b>2</b>	<b>11/27/2013</b>	<b>300</b>	<b>1</b>	<b>10/1/2012</b>	<b>23.73</b>
Hawkeye-1	Level-3			9/1/2009	1848	3	2/5/2013	595	0	3/16/2013	18.28
Hawkeye-3	Level-3			10/1/2009	1818	3	12/28/2011	1000	0	4/12/2013	17.39
<b>Hawkeye-6</b>	<b>Level-4</b>			<b>4/1/2010</b>	<b>1636</b>	<b>3</b>	<b>5/15/2014</b>	<b>131</b>	<b>1</b>	<b>9/1/2014</b>	<b>0.72</b>
<b>Hawkeye-4</b>	<b>Level-3</b>			<b>8/1/2010</b>	<b>1514</b>	<b>3</b>	<b>9/26/2013</b>	<b>362</b>	<b>1</b>	<b>8/5/2013</b>	<b>13.61</b>
Hawkeye-9	Level-3			12/1/2010	1392	3	12/22/2012	640	0	12/22/2012	21.04
Cougar Run 1	Level-4			12/1/2010	1392	3	11/12/2011	1046	0	8/23/2013	13.02
Cougar Run 2	Level-4			12/1/2010	1392	3	11/12/2011	1046	0	8/23/2013	13.02
<b>Sleepy Hollow</b>	<b>Level-4</b>			<b>1/1/2011</b>	<b>1361</b>	<b>3</b>	<b>1/16/2014</b>	<b>250</b>	<b>1</b>	<b>8/30/2013</b>	<b>12.79</b>
Legend	Level-3			3/1/2011	1302	3	11/1/2011	1057	0	8/30/2013	12.79
Dakota Superior	Level-2			9/1/2011	1118	2	12/23/2010	1370	0	6/23/2014	3.02
Silver Top	Level-2			11/1/2011	1057	2	5/25/2011	1217	0	7/1/2014	2.76
Twin Rock	Level-3			1/1/2012	996	2	12/3/2009	1755	0	7/2/2014	2.73
Prairie Gold	Level-2			2/1/2012	965	2	11/27/2012	665	0	6/28/2014	2.86
<b>Eagle Ridge</b>	<b>Level-5</b>			<b>3/1/2012</b>	<b>936</b>	<b>2</b>	<b>7/8/2014</b>	<b>77</b>	<b>1</b>	<b>7/9/2014</b>	<b>2.5</b>
<b>Whitetail Run</b>	<b>Level-5</b>			<b>4/1/2012</b>	<b>905</b>	<b>3</b>	<b>5/29/2014</b>	<b>117</b>	<b>1</b>	<b>4/1/2012</b>	<b>29.75</b>
Grassland Pork	Level-2			6/1/2012	844	2	2/5/2011	1326	0	6/15/2014	3.29
Skyline	Level-2			6/1/2012	844	2	11/20/2012	672	0	6/21/2014	3.09
Fox Run	Level-2			12/19/2012	643	1	12/19/2012	643	0	12/19/2012	21.14
Jackrabbit Family Pork	Level-2			5/17/2013	494	1	5/17/2013	494	0	5/17/2013	16.24
Buttercup	Level-3			10/1/2013	357	2	12/19/2012	643	0	10/1/2013	11.74
Nokomis-Winnewissa	Level-4			10/1/2013	357	2	11/21/2012	671	0	10/1/2013	11.74

# System Filter Farm Status

Breaks in Previous 12 Months by Week			
	2	1	0
<b>2014-38</b>	<b>0.00%</b>	<b>25.00%</b>	<b>75.00%</b>
2014-37	0.00%	25.00%	75.00%
2014-36	0.00%	25.00%	75.00%
<b>2014-35</b>	<b>0.00%</b>	<b>25.00%</b>	<b>75.00%</b>
<b>2014-34</b>	<b>0.00%</b>	<b>25.00%</b>	<b>75.00%</b>
2014-33	0.00%	25.00%	75.00%
2014-32	0.00%	25.00%	75.00%
2014-31	0.00%	25.00%	75.00%
<b>2014-30</b>	<b>0.00%</b>	<b>25.00%</b>	<b>75.00%</b>
2014-29	0.00%	25.00%	75.00%
2014-28	0.00%	25.00%	75.00%
2014-27	0.00%	20.83%	79.17%
2014-26	0.00%	20.83%	79.17%
2014-25	0.00%	20.83%	79.17%
<b>2014-24</b>	<b>0.00%</b>	<b>20.83%</b>	<b>79.17%</b>
<b>2014-23</b>	<b>0.00%</b>	<b>20.83%</b>	<b>79.17%</b>
2014-22	0.00%	20.83%	79.17%
2014-21	0.00%	16.67%	83.33%
2014-20	0.00%	16.67%	83.33%
2014-19	0.00%	12.50%	87.50%

PRRS RISK SCORE	Breaks in the last 12 Months	% Breaks Based on # of Farms
1 = Low	0	0%
2 = Med	2	20%
3 = High	4	33%



# Monitoring Across the Industry

- Swine Health Monitoring Project
  - U of MN (*D. Goede, B. Morrison*)

## PRRSV

Number of sows	1,213,052
Number of farms	372

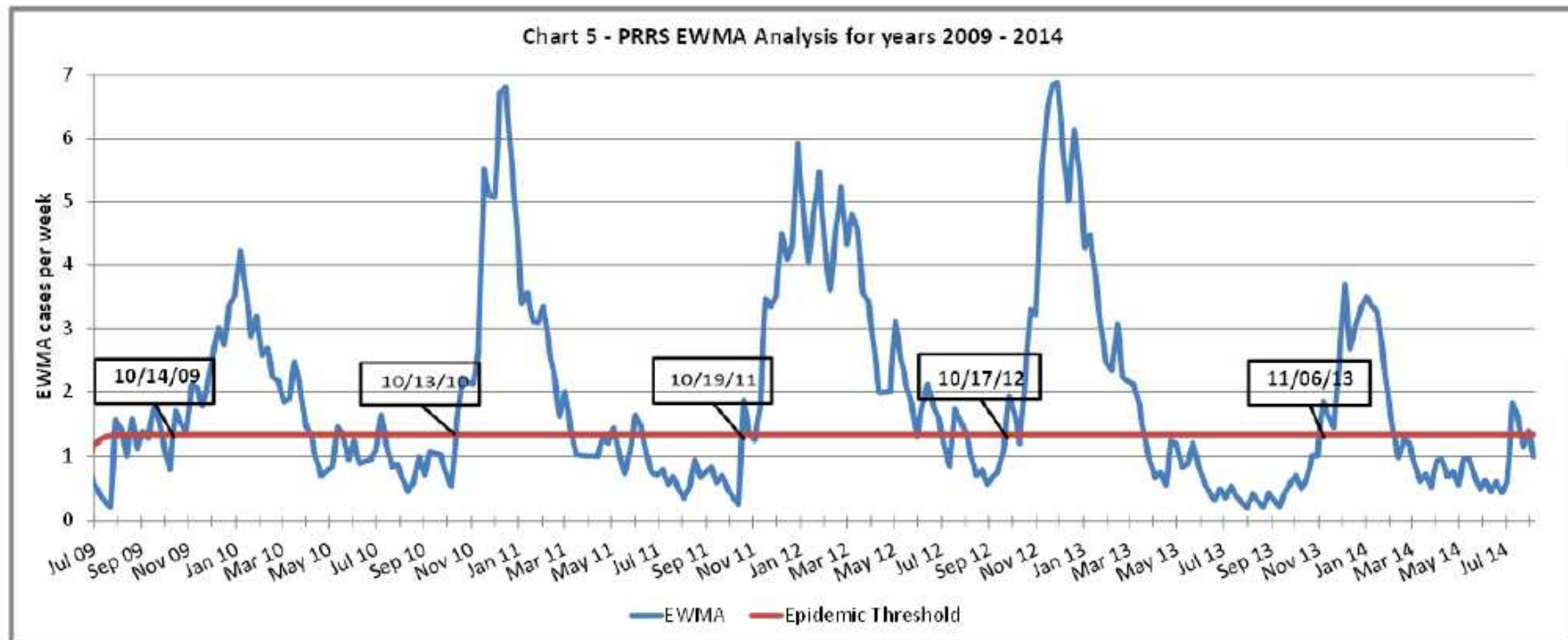
AASV Classification	
1	Positive Unstable
2v	Positive Stable, Ongoing exposure
2	Positive Stable
3	Provisionally Negative
4	ELISA Negative

## PEDV

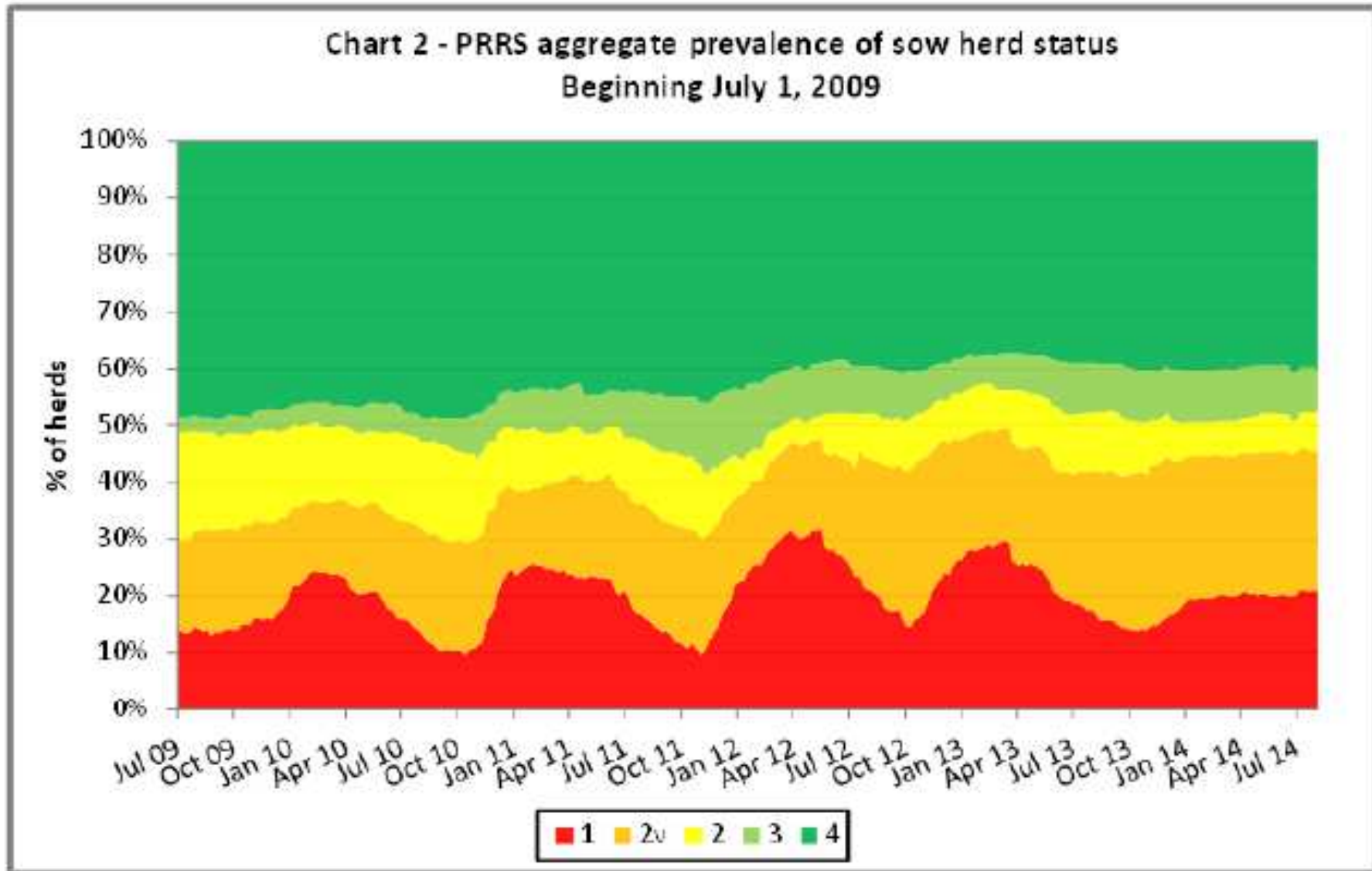
Number of sows	2,084,042
Number of farms	739

Classification Scheme	
1	Positive Unstable
2v	Positive Stable, Ongoing exposure
2	Positive Stable
3	Provisionally Negative
4	Negative

# Swine Health Monitoring Project – U of MN (*D. Goede*)



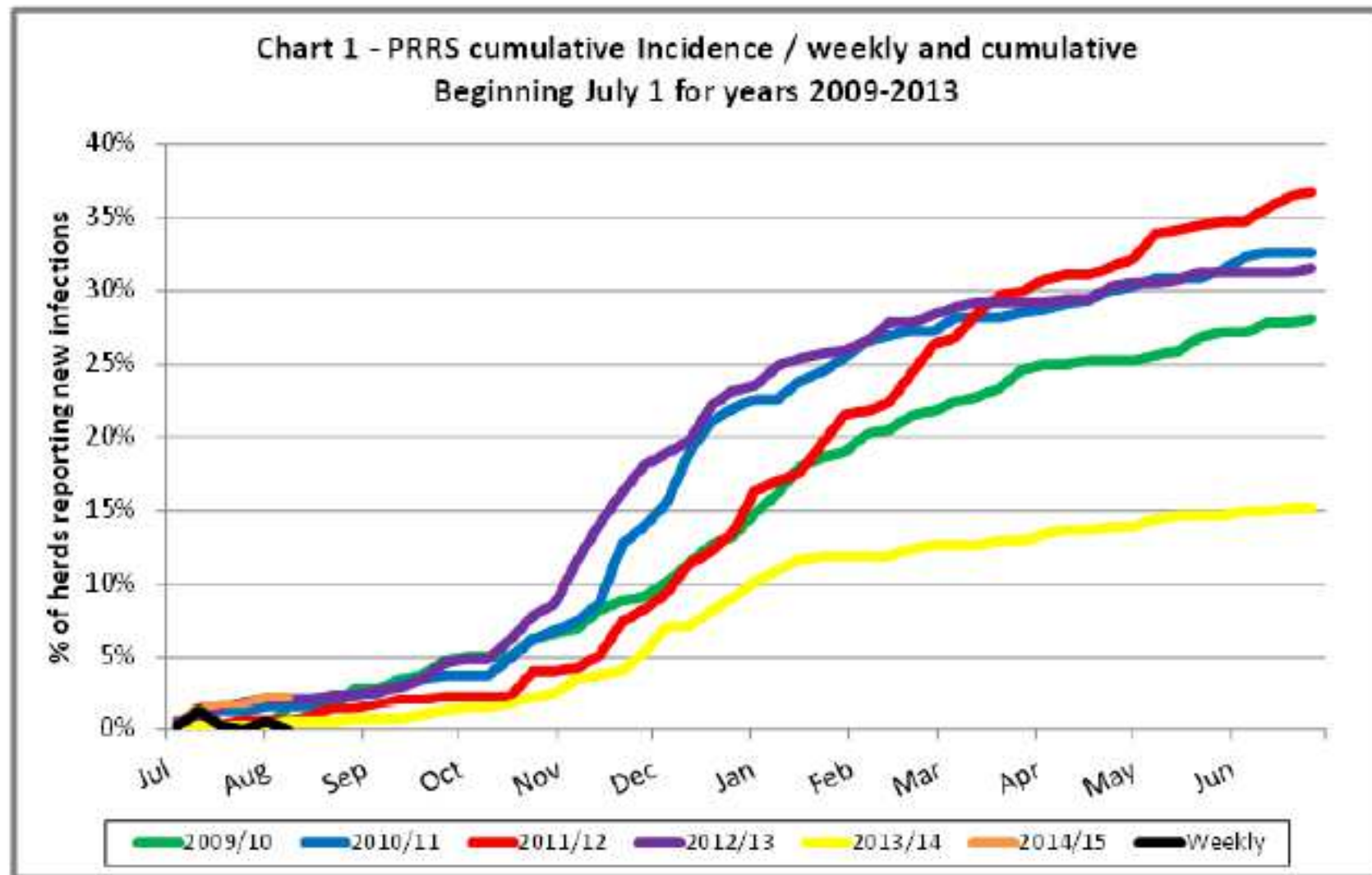
## Swine Health Monitoring Project – U of MN (*D. Goede*)



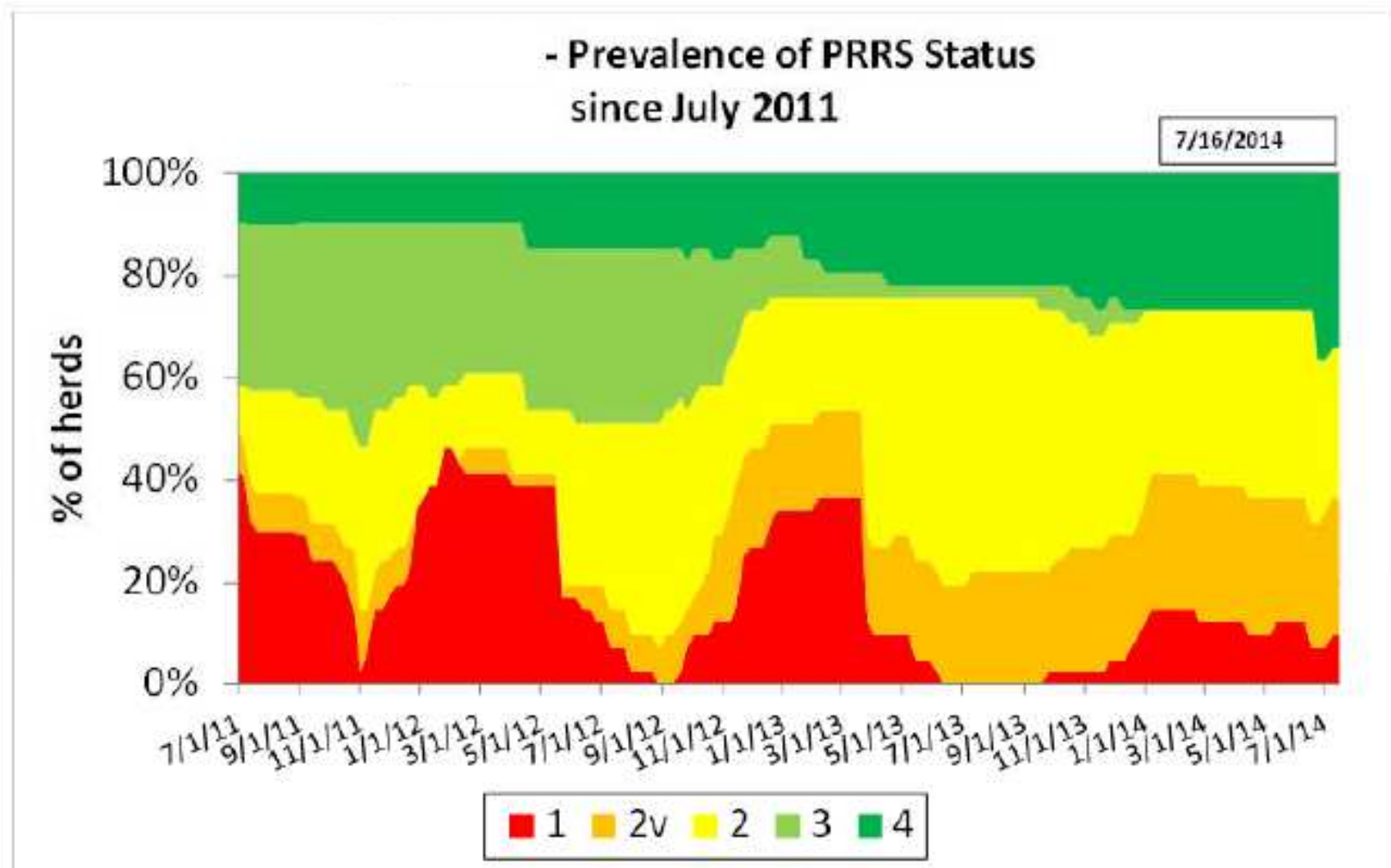


# Swine Health Monitoring Project – U of MN (*D. Goede*)

## PRRSV

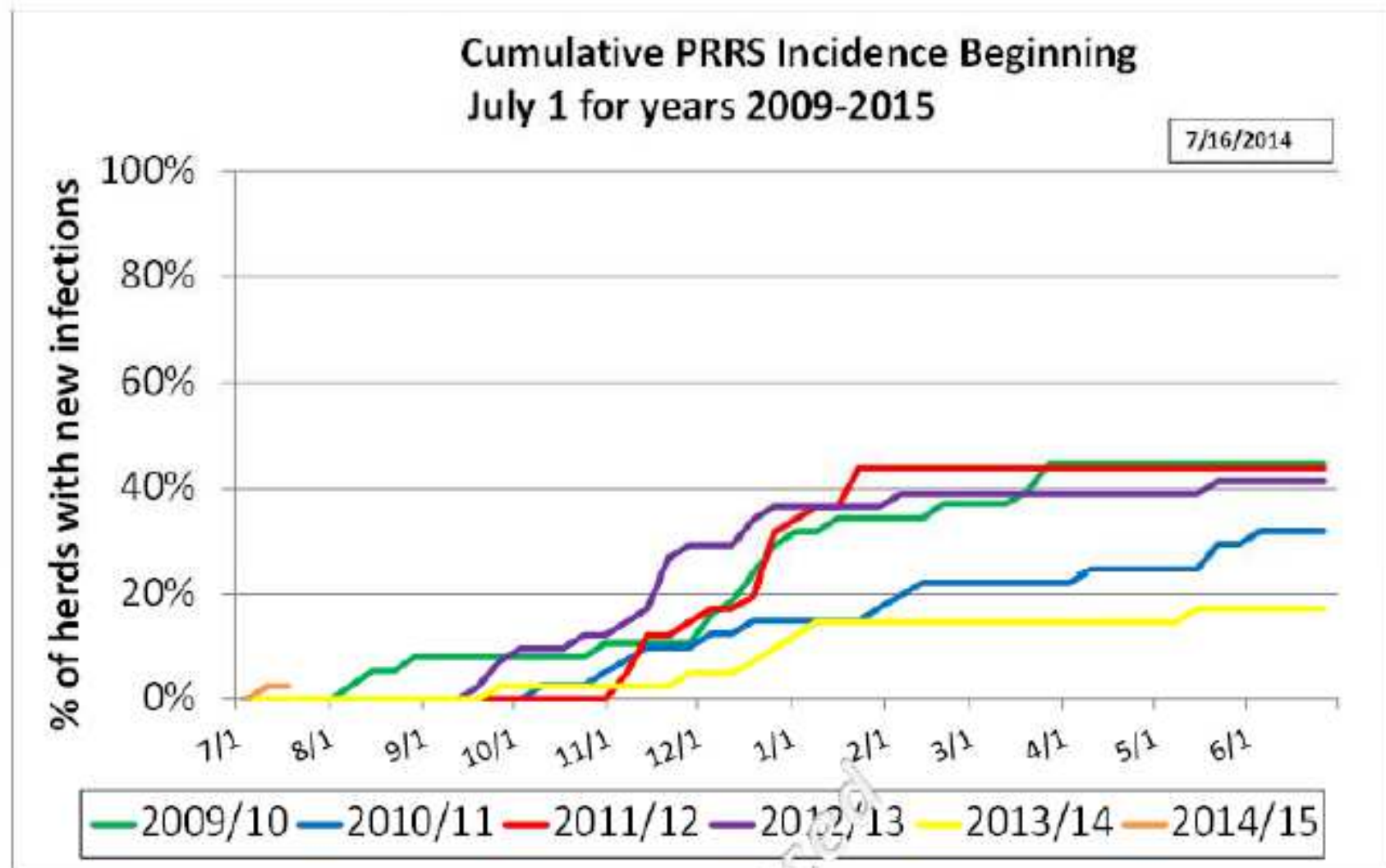


# Pipestone



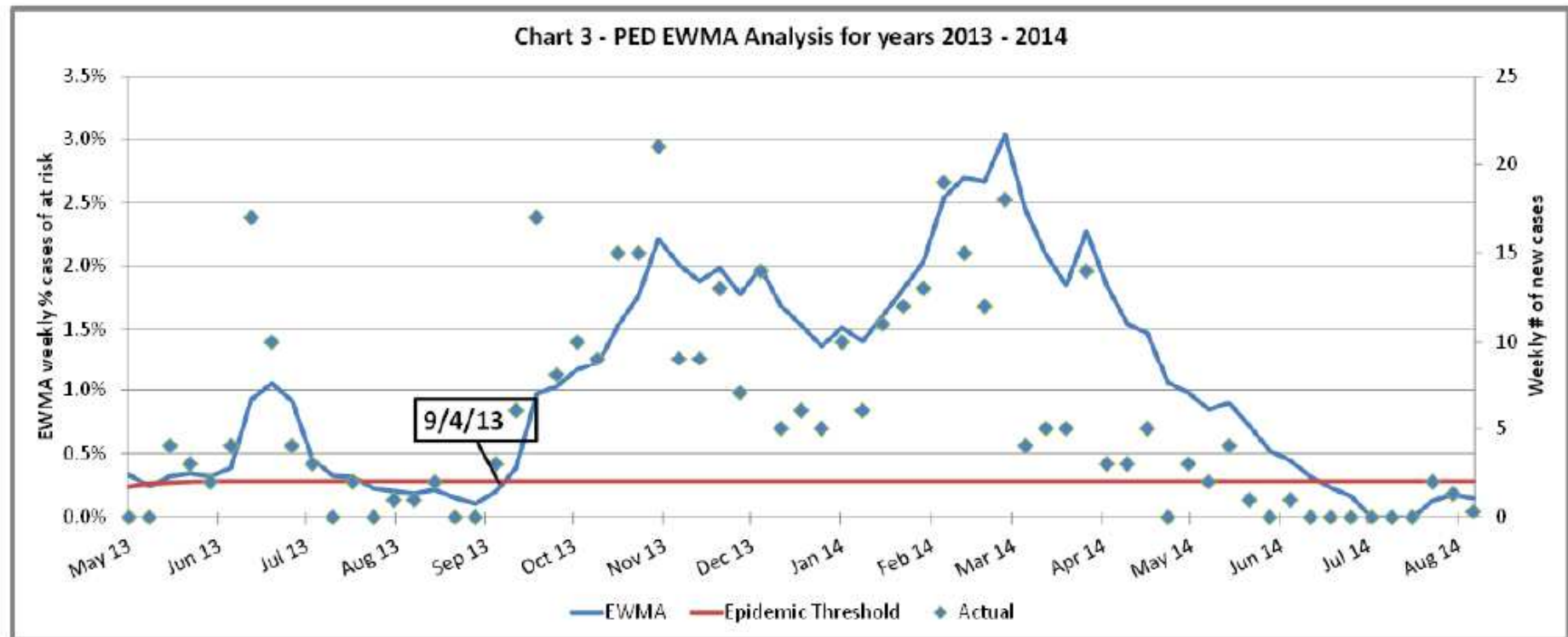
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# Pipestone



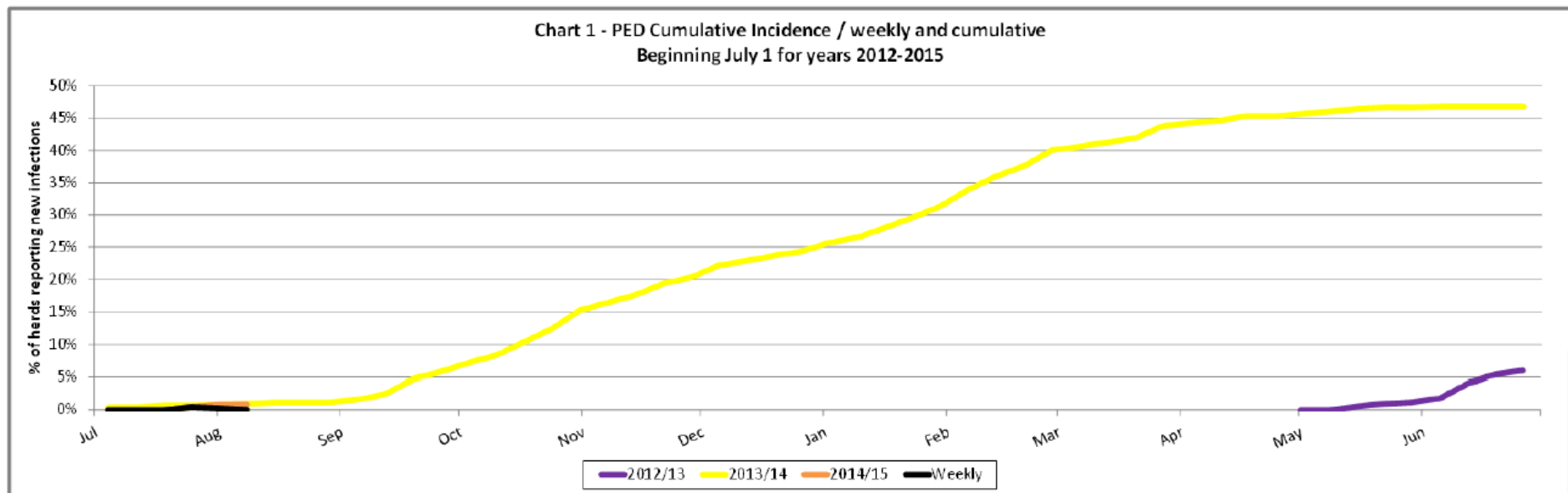
Swine Health Monitoring Project – U of MN (D. Goede)

# Swine Health Monitoring Project – U of MN *(D. Goede)*



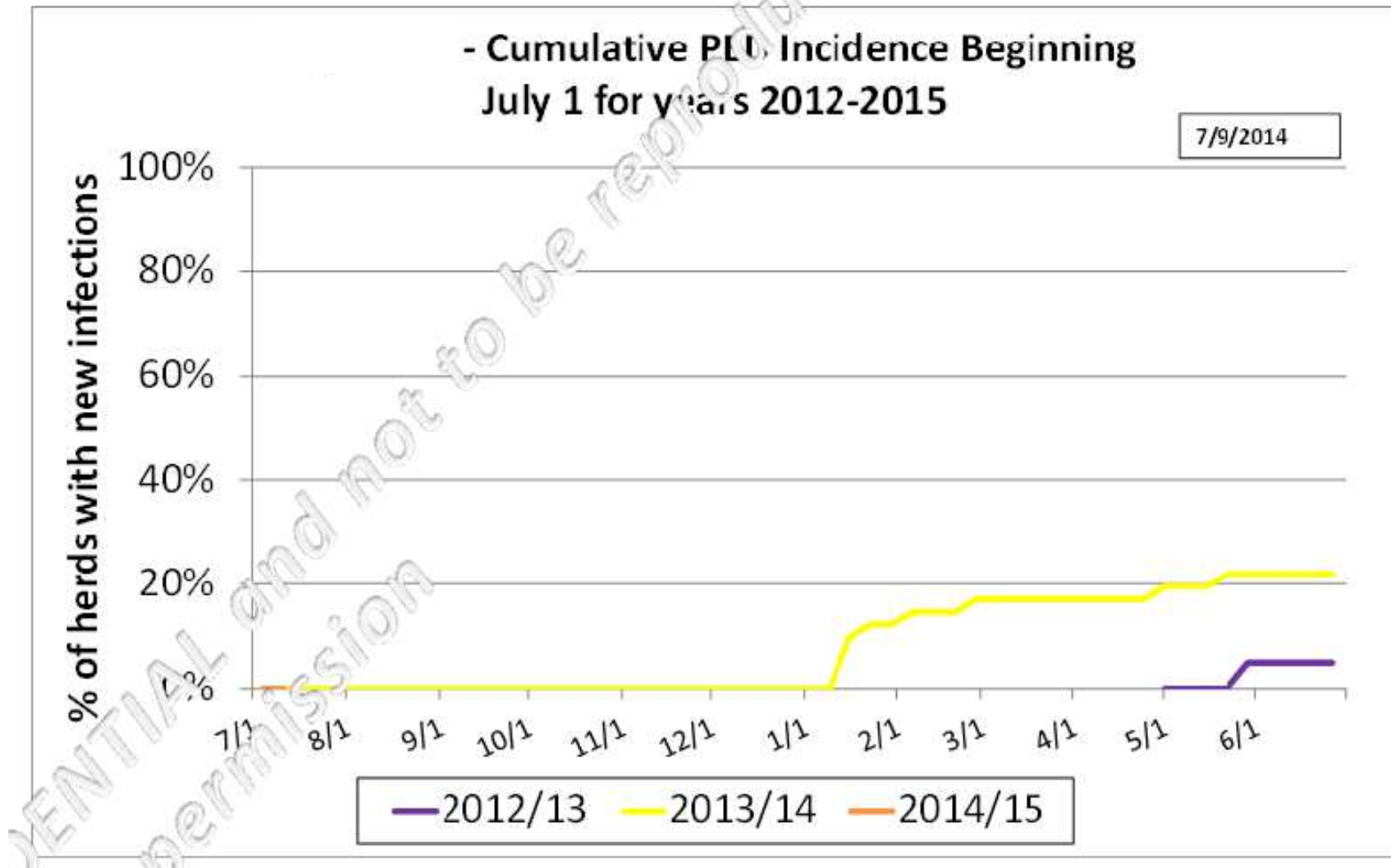
# Swine Health Monitoring Project – U of MN (*D. Goede*)

## PEDV



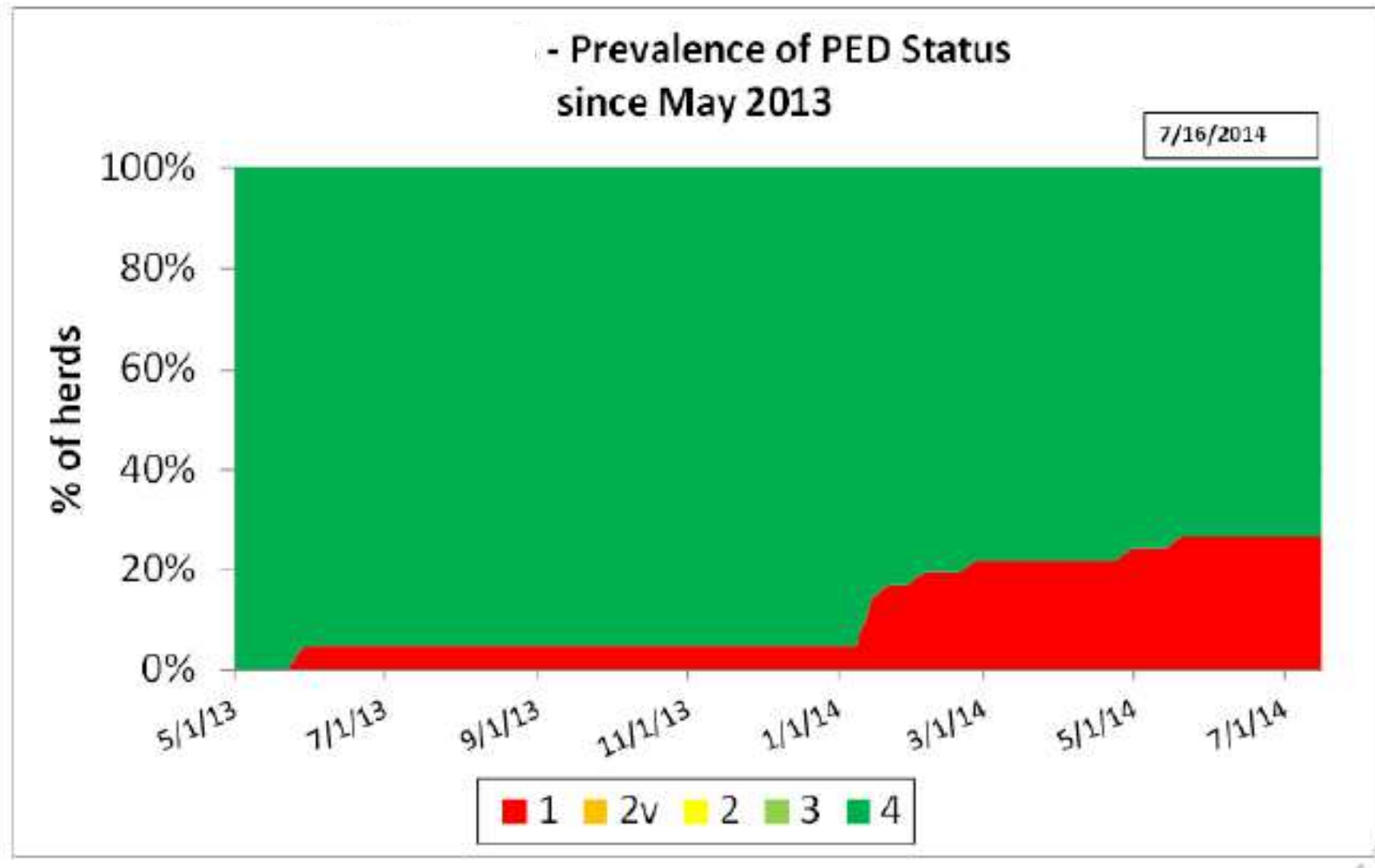


# Pipestone



Swine Health Monitoring Project – U of MN (D. Goede)

# Pipestone



Swine Health Monitoring Project – U of MN (D. Goede)

# MORE INFORMATION:

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