Health Monitoring Report

Based on FELASA Recommendations

MARSHALL BIORESOURCES

Name and address of the breeder: *Marshall Farms Group, North Rose, NY*

Date of issue: March 2018 **Unit N°:** *Galen Rd – P1, P2 & P3* **Examination date:** February 2018

Species: Porcine **Strain:** Göttingen Minipig **Populated**†: P1 August 2003, P3 October 2016

	CUMULATIVE RESULTS			CURRENT TEST RESULTS			LABORATORY	METHOD
VIRAL INFECTIONS	**P1**	**P2**	**P3**	**P1**	**P2**	**P3**		
Aujeszky's Disease (Pseudorabies)	0/260	0/60	0/30	0/10	0/10	0/10	PU	ELISA (Blood)
Classical Swine Fever (hog cholera)	NA	NA	NA	NE	NE	NE	NA	NA (U.S. free of Hog Cholera)
Porcine Epidemic Diarrhea****	0/70	0/50	0/20	NE	NE	NE	Iowa	PCR (Fecal)
PEDV/PDCoV	0/12	0/14	0/12	0/12	0/14	0/12	Iowa	Multiplex PCR (Fecal)
Encephalomyocarditis Virus	0/270	0/60	0/30	0/10	0/10	0/10	UM	SN (Blood)
Haemagglutinating Encephalomyelitis	0/270	0/60	0/30	0/10	0/10	0/10	UM	HI (Blood)
Porcine Circovirus II	0/270	0/60	0/30	0/10	0/10	0/10	PU	IFA (Blood)
Porcine Influenza								
A *****	0/60	0/60	0/30	0/10	0/10	0/10	PU	ELISA (Blood)
H1N1	0/220	NE	NE	NE	NE	NE	PU	ELISA (Blood)
H3N2	0/220	NE	NE	NE	NE	NE	PU	ELISA (Blood)
Porcine Parvovirus	0/270	0/60	0/30	0/10	0/10	0/10	UM	HI (Blood)
Porcine Reproduct. & Resp. Syndrome	0/270	0/60	0/30	0/10	0/10	0/10	Iowa	ELISA (Blood)
Porcine Respiratory Coronavirus	0/270	0/60	0/30	0/10	0/10	0/10	PU	ELISA (Blood)
Porcine Rotavirus	147/270	39/60	11/30	9/10	9/10	8/10	PU	IFF (Blood)
Transmissible Gastroenteritis	0/270	0/60	0/30	0/10	0/10	0/10	PU	ELISA (Blood)
BACTERIAL INFECTIONS								
Actinobacillus pleuropneumoniae								
Serotypes 1, 5, 7	0/270	0/60	0/30	0/10	0/10	0/10	UM	ELISA (Blood)
Bordetella bronchiseptica	1/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Nasal Swab)
Brachyspira (Serpulina) hyodysenteriae	0/270	0/60	0/30	0/10	0/10	0/10	PU	PCR (Fecal)
Brucella abortus	0/260	0/60	0/30	0/10	0/10	0/10	PU	Agglutination (Blood)
Campylobacter spp.	3/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Fecal)
Clostridium perfringens Type C***	0/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Fecal)
Erysipelothrix rhusiopathiae	0/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Skin Swab)
Eubacterium suis	0/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Urine)
Haemophilus parasuis	0/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Nasal Swab)
Lawsonia intracellularis	0/270	0/60	0/30	0/10	0/10	0/10	PU	PCR (Fecal)
Leptospira spp. (pomona, grippotyphosa, hardjo, canicola, icterohemorrhagiae, bratislava)	0/270	0/60	0/30	0/10	0/10	0/10	PU	MA (Blood)
Mycoplasma hyopneumoniae	0/270	0/60	0/30	0/10	0/10	0/10	PU	ELISA (Blood)
P. multocida (toxin producing)	0/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Nasal Swab)
P. haemolytica	0/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Nasal Swab)
P. pneumotropica	0/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Nasal Swab)
other pasteurellae	0/270	0/60	0/30	0/10	0/10	0/10		
Salmonella spp.	0/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Fecal)
Staphylococcus hyicus**	43/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Skin Swab)
β-haemolytic Streptococci	0/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Nasal Swab)
Streptococcus suis-type 2	0/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Nasal Swab)
Streptococcus suis-other	3/270	1/60	2/30	0/10	1/10	2/10	PU	Culture (Nasal Swab)
Yersinia enterocolitica	0/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Fecal)
FUNGAL INFECTIONS								
Candida albicans	5/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Skin Swab)
Microsporum spp.	0/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Fecal)
Trichophyton spp.	0/270	0/60	0/30	0/10	0/10	0/10	PU	Culture (Fecal)
PARASITOLOGICAL INFECTIONS								
Arthropods	0/270	0/60	0/30	0/10	0/10	0/10	In-house	Micr. Insp. (Skin Swab)
Helminths	0/270	0/60	0/30	0/10	0/10	0/10	In-house	Flotation* (Fecal)
Coccidia (Eimeria, Isospora)	0/270	0/60	0/30	0/10	0/10	0/10	In-house	Flotation* (Fecal)
Giardia	0/270	0/60	0/30	0/10	0/10	0/10	In-house	Flotation* (Fecal)
Toxoplasma gondii	0/270	0/60	0/30	0/10	0/10	0/10	PU	IFA (Blood)

NA=not applicable
NE=not examined

†Continuous flow of animals in one direction from P1 into P2. First migration of animals into P2 occurred in November 2014. P3 was populated with animals from P1 in October of 2016. Animals can also flow in one direction from P3 to P2.

Abbreviations for laboratories:

PU Purdue University Animal Disease Diagnostic Laboratory
IDEXX Production Animal Services, Idexx Laboratories
UM University of Minnesota, Minnesota Veterinary Diagnostic Laboratory
Iowa State University of Iowa, Veterinary Diagnostic Laboratory

Abbreviations for methods:

ELISA: Enzyme Linked Immuno-Sorbent Assay; IFA: Immuno Fluorescence Assay; VN: Virus Neutralization; MA: Microagglutination; SN: Serum Neutralization;
HI: Hemagglutination Inhibition; PCR: Polymerase Chain Reaction

* Sodium Nitrate

** Until January 2006, Staphylococcus isolates were reported as Staphylococcus hyicus. Subsequently, isolates were further characterized, and identified as Staphylococcus hyicus subspecies chromogenes. In keeping with more recent standards of nomenclature, Staphylococcus hyicus and Staphylococcus chromogenes are now considered taxonomically distinct. Therefore, Staphylococcus chromogenes will no longer be reported under Staphylococcus hyicus.

*** In February 2009, the presence of *Clostridium perfringens* Type C enteric disease was confirmed in 0-3 day old piglets. This is a disease specific to newborns and affected piglets died within 12-24 hours of onset or were culled immediately when symptoms consistent with this disease were displayed. There is no carrier state associated with this bacterium. Subsequent to this incidence, pregnant sows are now prophylactically vaccinated with *Clostridium perfringens* Types C and D toxoid twice during pregnancy.

**** The presence of Porcine Epidemic Diarrhea Virus (PEDV) was first confirmed in pork production herds in the US on May 17, 2013. PEDV is a coronavirus related to Transmissible Gastroenteritis Virus (TGEV) that causes similar enteric disease in pigs of all ages. Diagnostic tests for TGEV will not detect PEDV. Surveillance testing was implemented in our colony beginning in March 2014.

***** As of February 2015, Influenza A will replace the test for H1N1 and H3N2

Bambi L Jasmin 03/30/2018

Bambi Jasmin , DVM Date