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*Animal Production Science*

### Supplementary Material

#### **Estimating potential farm economic benefits of advanced microbiological diagnostics in veterinary medicine**

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Appendix A.

Table A.1. Estimated relationships between diagnostic test results and probabilities of different states of health, calf pneumonia

	Diagnostic indication						
	Mannhemia haemolyt.	Pasteurella multocida	Histophilus somni	Mycoplasma bovis	Bovine parainfl. 3 (PIV3)	Bovine corona (BCoV)	Bov. resp. sync. vir. (RSV)
	Probability of state of health						
<b>State of nature</b>							
Mannheimia haemolytica	100%	4%	1%	4%	0%	1%	0%
Pasteurella multocida	3%	95%	1%	4%	0%	0%	0%
Histophilus somni	3%	4%	100%	4%	0%	0%	0%
MPH combinations	13%	13%	12%	6%	1%	1%	1%
Mycoplasma bovis	17%	17%	16%	94%	3%	4%	1%
Other bacteria	1%	1%	0%	1%	0%	0%	0%
Bovine parainfluenza virus 3	1%	2%	0%	2%	100%	0%	0%
Bovine coronavirus	2%	2%	0%	2%	0%	100%	0%
Bovine respiratory syncytial virus	4%	5%	4%	4%	0%	0%	92%
IBR/ BVD	0%	0%	0%	0%	0%	0%	0%
Other infections	4%	5%	1%	5%	1%	1%	1%

Table A.2. Estimated relationships between diagnostic test results and probabilities of different states of health, weaner pig diarrhea

	<b>Diagnostic indication</b>			
	E.coli, F4	E.coli, F18	L. interc.	Br. pilosic.
	Probability of state of health			
E. coli F4, susceptible to all	39%	2%	0%	0%
E. coli F4, resistant to tetracycline	30%	1%	0%	0%
E. coli F4, resistant to aminoglycoside	23%	1%	0%	0%
E. coli F18, susceptible to all	5%	42%	3%	1%
E. coli F18, resistant to tetracycline	3%	33%	2%	1%
E. coli F18, resistant to aminoglycoside	0%	25%	0%	0%
E.coli F4/F18 combi	14%	19%	4%	1%
E.coli F4/F18 combi -resistant to tetracycline	21%	29%	5%	2%
E.coli F4/F18 combi - resistant to aminoglyc.	3%	4%	1%	0%
Lawsonia intercellularis weaners	0%	0%	88%	0%
Brachyspira pilosicoli	0%	1%	0%	94%
Other combinations of the 4 bacteria	13%	20%	5%	3%
Other weaner diarrhea	6%	15%	4%	1%