TECHNICAL PAPER

RESEARCH SUMMARY

Evaluation of FeedARMOR[™] usage in conjunction with water treatment.



BACKGROUND

Feed is a known transmitter for disease transmission to sows. Water can also be a potential transmitter, especially when sourced from ponds or wells where contamination is possible. The McNess Bio-Security Platform integrates advanced feed and water sanitation techniques to enhance bio-security on farms. The platform includes Reliant Tabs (HOCL; hypochlorous acid) which are easy, EPA-registered effervescent tablets for disinfecting hard, non-porous surfaces and drinking water, while simultaneously using FeedARMOR in the feed. FeedARMOR is a safe and effective blend of organic acids and monoglycerides that has a high level of protection (gram +ve, -ve bacteria, viruses). This platform has proven highly effective in reducing and eliminating pathogenic bacteria and viruses. Recent observations have shown that while the platform effectively sanitizes contaminated feed and water, it also reduces sow mortality rates, particularly by decreasing the incidence of sow prolapses.

BACKGROUND ON THE SOW FARMS

The study involved two sow farm systems.

SYSTEM	SOW FARM NAME	NUMBER OF SOWS	WATER SOURCE	WATER TREATMENT AND DURATION	FEED MILL
1	Farm M	1,500	Hard well water	HOCL acid for over a year	Feed Mill M
	Farm H1	1,800			Feed Mill H
	Farm H2	1,800			
2	Commerical Farm	3,200	River or pond water	Long-term use of HOCL acid	One Feed Mill
	Multiplier Farm 1	1,200		No use of HOCL sold	
	Multiplier Farm 2	4,000		NU USE UL HUUL AUIU	

TREATMENTS

All sow farms supplemented with 5lb/ton of FeedARMOR; continual use of HOCL water treatment.

- Exception of Commercial Farm 2- received double dose of HOCL during period of FeedARMOR supplementation
- Multiplier Farm 2 received HOCL treatment for less than 4 weeks towards the end of the FeedARMOR data collection period

RESULTS

		AVERAGE PROLAP		
SYSTEM	SOW FARM NAME	BEFORE USING FEED ARMOR	AFTER USING FEEDARMOR*	REDUCTION %
1	Farm M	3.25	2.82	14%
	Farm H1	2.95	2.55	14%
	Farm H2	2.95	2.55	14%
2	Commerical Farm	6.36	2.00	69%
	Multiplier Farm 1	0.25	0.11	56%
	Multiplier Farm 2	1.05	0.16	85%

* Average sow prolapse rates were recorded at 10 weeks for System 1 and 18 weeks for System 2 after the introduction of FeedARMOR

FIGURE 1.

Average prolapse rates before (6.36 sows/ week with 1x HOCL) and after (2 sows/week with 2x HOCL) using FeedARMORTM in the System 2 Commercial Farm (3,200 sows).



Blue line represents total prolapses per week.

Orange line represents 3 weeks moving average.



FIGURE 2.

Average prolapse rates before (1.05 sows/ week without HOCL) and after (0.16 sows/ week with HOCL) using FeedARMOR in the System 2 Multiplier Farm 2 (4,000 sows).



Blue dots represents total prolapses per week.

Orange line represents 3 weeks moving average.



RESEARCH SUMMARY

FARM SPECIFIC CONCLUSIONS

- Commercial farm system 2: the combination of a strong dose of HOCL water treatment + FeedARMOR resulted in a 69% reduction in prolapses
- Multiplier farm 2: FeedARMOR alone demonstrated a clear impact on reducing prolapses. When running the combination of FeedARMOR and HOCL; the farm experienced **11 weeks** without a single prolapse (7 weeks with FeedARMOR alone and 4 weeks with both FeedARMOR and HOCL)

OVERALL CONCLUSIONS

- FeedARMOR has a significant impact on reducing prolapse rates in sows, both with and without the use of HOCL water treatment
- Using FeedARMOR in combination with HOCL water treatment can effectively reduce sow prolapse rates by 14% to 85%



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