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How LIGHTNING START helps the weaned pig: research summary

How much weight do pigs gain during the first week in the nursery? What percentage of the pigs actually loses weight the first three days in the nursery? Can we improve that performance by feeding a unique meal/pellet prestarter? How does performance during the first three days after nursery placement correlate with later nursery performance? These were some of the questions we were trying to address in two recent trials at the research nursery.

Research was undertaken to measure the performance of individual pigs in the first week post weaning as affected by diet. Performance was also measured after the first week to assess any carry over effects on performance.

Two feeding regimes were offered for the first three days – one a meal and pellet mix (LIGHTNING START) which was top dressed over a starter pellet. The second (Control) regime was the starter pellet only. From day 4 onwards all pigs were fed the same diets.

Performance in the first 3 days post weaning

- A significant response was seen with 85% of the pigs fed LIGHTNING START gaining weight compared to 64% of the pigs who received a standard starter pellet but no LIGHTNING START shown in (Figure 1).

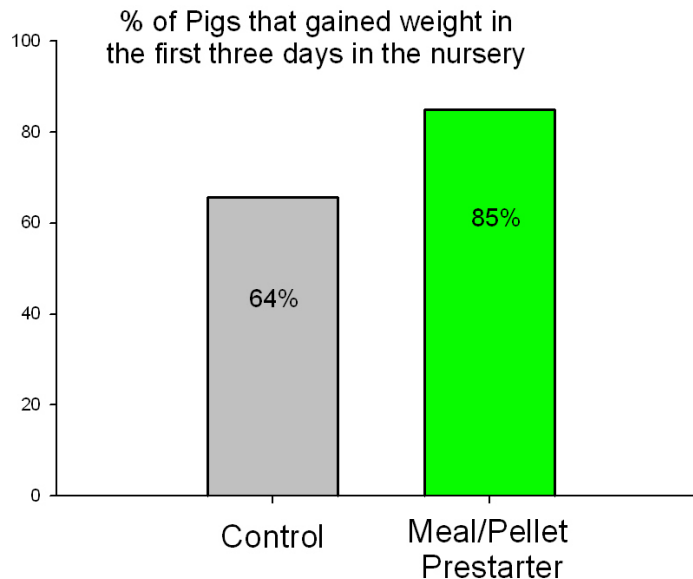


Figure 1 Percentage of pigs that gained weight post weaning when pellets were fed without LIGHTNING START (Control) or with LIGHTNING START

- Pigs fed LIGHTNING START in this trial grew 117 % ($P < 0.05$) faster during the first three days. In an identical replicate trial they grew 73.9 % ($P < 0.05$) more in the first 3 days than the non-LIGHTNING START pigs – an average improvement of **95.5% over pigs fed pellets alone**.



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Big Pigs Need LIGHTNING START TOO!

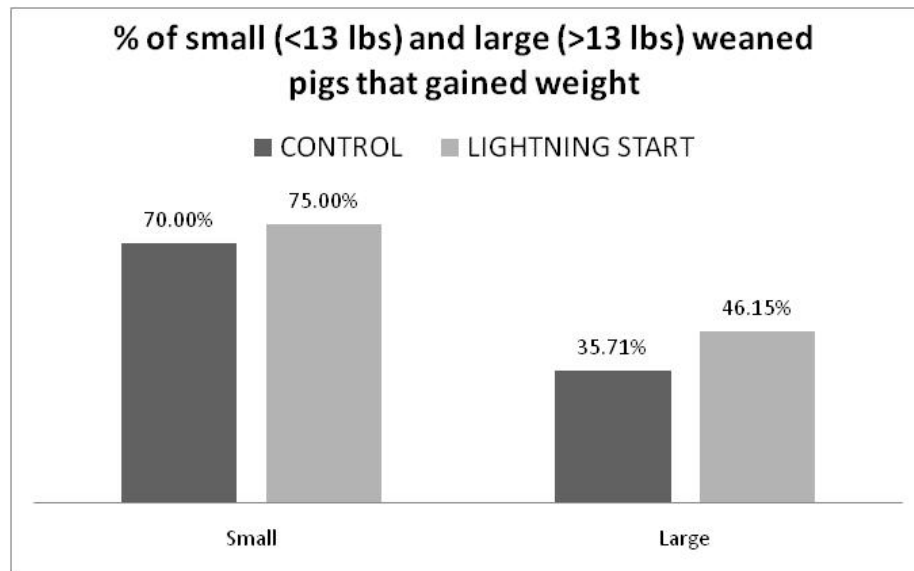


Figure 2 The % of pigs that gained weight in the first three days when considered to on average be small (10.8lbs) or large (16.9lbs) and when having LIGHTNING START top dressed or not on their starter pellet.

The data in Figure 2 show that the larger weaned pigs had an even greater benefit from getting LIGHTNING START. It also shows that larger pigs are more likely to loose weight immediately post weaning.

Table 1 The performance of pigs either given LIGHTNING START as a top dress on starter pellet or fed the starter pellet alone (Trial KW010209)

Day	Control	LIGHTNING START	% Change	Prob.
FI (lbs/day)				
0 to 3	0.29	0.39	+ 34.5%	**
3 to 7	0.54	0.68	+ 25.9%	**
ADG (lbs/day)				
0 to 3	0.11	0.21	+ 90.9%	**
3 to 7	0.39	0.60	+ 53.8%	**
FCR				
0 to 3	2.61	1.91	-26.5%	**
3 to 7	1.36	1.13	-16.9%	**



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- The distribution of ADG is shown in Figure 3 for these first three days. It shows clearly that LIGHTNING START was able to significantly affect the entire population of pigs by increasing the peak and shifting the curve to the right.

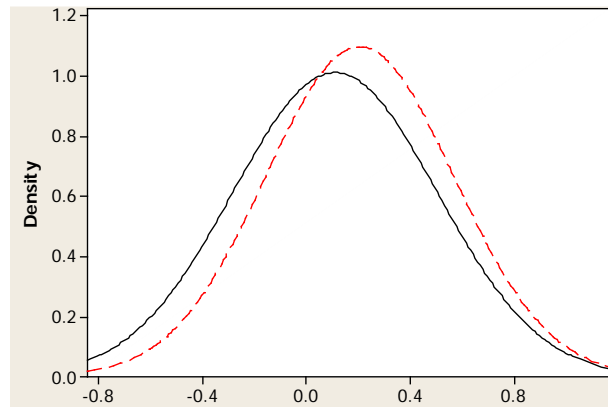
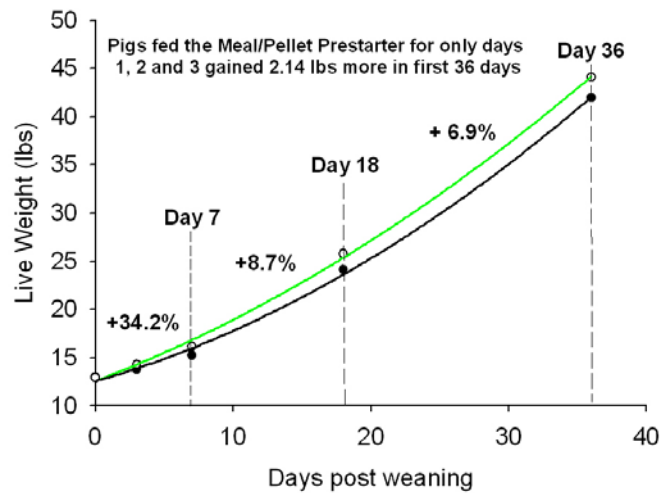


Figure 3 Fitted normal distributions for the ADG (expressed as lbs/d on the x axis) of pigs fed a standard pellet (solid black line) or fed LIGHTNING START (dashed red line) in the first 3 days post weaning

Performance from day 4 onwards when all pigs were consuming the same diets

- Pigs fed LIGHTNING START for the first 3 days continued to outperform the control pigs even though they were consuming the same diets from day 3 onwards.



Conclusions

Overall, this research has shown significant improvements in post weaning performance as well as general nursery performance when pigs are fed LIGHTNING START for the first three days post weaning. More research ahead: How does early nursery performance impact the lifetime performance of pigs? What is the economic benefit to having pigs gain weight sooner in the nursery?