



SWINE SOLUTIONS

POWERSTART™ Solo and the impact of feed budgeting on performance

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[POWERSTART™ Solo](#) is a single-phase diet designed to be fed from weaning until 25 pounds of body weight. It was developed through years of research on lactose levels, soybean meal and gut health. Our research has consistently demonstrated that pigs fed POWERSTART Solo will perform similarly to or at a slightly improved level over those fed a traditional [two-phase program](#).

At Hubbard Feeds, we understand that one size does not necessarily fit all. Although the typical recommendation is a budget of 15 pounds of POWERSTART Solo, it is important to recognize that different producers face unique situations and, in many cases, are presented with challenges that require constant adaptation. Factors such as weaning age, weaning weight and health status have a significant impact on the response to nursery diets. Moreover, when making decisions regarding a nutritional program, it is also critical to take into consideration the production targets. Is your goal to optimize growth performance, minimize cost per pound of gain or maximize income over feed cost? The answer to that question will, in many cases, determine which strategy you should adopt.

With that in mind, we evaluated different feed budgets using POWERSTART Solo. A trial using 3,264 pigs from a commercial flow weaning at 12 pounds of body weight was conducted with four treatments based on POWERSTART Solo budgets of 9, 12, 15 or 18 pounds per pig. After receiving their allotted budgets, pigs were provided a common corn-soybean meal diet.

For the first 14 days of the trial (see Table 1), when all pigs were receiving their allotted POWERSTART Solo budgets, growth performance was similar across treatments, as was expected. However, from days 14 to 21, pigs that received 15 or 18 pounds of POWERSTART Solo had significantly improved intake, gain and feed efficiency compared to those fed 9 or 12 pounds of POWERSTART Solo that had switched to the corn-soybean meal diet.

Table 1. Effects of POWERSTART Solo budgets from days 0 to 21

	POWERSTART Solo budgets				P-value
	9 lbs.	12 lbs.	15 lbs.	18 lbs.	
Days 0 to 7					
Starting wt., lbs.	12.1	12.1	12.1	12.1	1.0
ADG, lbs.	0.29	0.29	0.30	0.29	.93
ADFI, lbs.	0.25	0.26	0.26	0.25	.94
F/G	0.92	0.91	0.92	0.89	.85
End wt., lbs.	14.2	14.3	14.3	14.3	.99
Days 7 to 14					
ADG, lbs.	0.64	0.67	0.69	0.68	.55
ADFI, lbs.	0.69	0.71	0.72	0.71	.72
F/G	1.09	1.07	1.05	1.06	.61
End wt., lbs.	18.7	18.9	19.1	19.0	.83
Days 14 to 21					
ADG, lbs.	0.59 ^a	0.70 ^b	0.81 ^c	0.79 ^c	.01
ADFI, lbs.	0.89 ^a	0.92 ^a	0.97 ^b	0.90 ^a	.05
F/G	1.53 ^c	1.31 ^b	1.20 ^a	1.14 ^a	.01
End wt., lbs.	22.7 ^a	23.6 ^b	24.5 ^c	24.3 ^{bc}	.01

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This significant improvement was also reflected in the cumulative 21-day performance of the animals. Pigs fed 15 pounds of POWERSTART Solo were 1.8 pounds heavier and presented a 10% improvement in feed efficiency 21 days post-weaning compared to those fed 9 pounds of POWERSTART Solo. As expected, a budget of 12 pounds resulted in intermediate performance. Although pigs can demonstrate a compensatory growth response, those fed 15 or 18 pounds of POWERSTART Solo maintained their weight gain advantage and were approximately 2 pounds heavier at the end of the nursery period than the others (see Table 2). This confirms the consistent results observed with POWERSTART Solo, as well as the critical importance of determining the correct feed budget.

Table 2. Effects of POWERSTART Solo budgets on cumulative nursery performance

	POWERSTART Solo budgets				P-value
	9 lbs.	12 lbs.	15 lbs.	18 lbs.	
Days 0 to 21					
ADG, lbs.	0.50 ^a	0.55 ^b	0.59 ^c	0.58 ^c	.01
ADFI, lbs.	0.60	0.61	0.64	0.61	.29
F/G	1.20 ^c	1.12 ^b	1.08 ^a	1.06 ^a	.01
Days 21 to 45					
ADG, lbs.	1.16	1.13	1.17	1.16	.39
ADFI, lbs.	1.52 ^a	1.52 ^a	1.59 ^b	1.58 ^b	.06
F/G	1.31 ^a	1.34 ^b	1.36 ^b	1.36 ^b	.01
Days 0 to 45					
ADG, lbs.	0.85 ^a	0.86 ^a	0.90 ^b	0.89 ^b	.03
ADFI, lbs.	1.09 ^a	1.09 ^a	1.14 ^b	1.12 ^{ab}	.09
F/G	1.27	1.27	1.27	1.26	.38
End wt., lbs.	50.6 ^a	50.8 ^{ab}	52.5 ^c	52.2 ^{bc}	.10

Our standard recommendation is a budget of 15 pounds of POWERSTART Solo. However, if you are facing a particular challenge or want to meet a specific goal, contact a Hubbard nutritionist for an evaluation of the best options for your operation.