

176 The effects of feeding 15 or 30 ppm of narasin on the growth performance of pigs during the grower period. R. A. Arentson¹, S. Fry¹, T. A. Marsteller¹, E. L. Christianson², ¹Elanco, Greenfield, IN, ²Elanco Animal Health, Greenfield, IN.

The purpose of this study was to determine the effects of 15 or 30 ppm of narasin (NAR; Skycis®, Elanco Animal Health, Greenfield, IN) on the growth performance of pigs from 26.7 to 70.5 kg. On day -7, one hundred eight pens each containing 20 to 21 pigs with a BW of 26.7 kg were blocked and balanced for weight within block and then treatments: Control (CON), NAR 15 ppm, or NAR 30 ppm were randomly assigned to pens within each block. Diet treatments consisted of 3 identical mash diets containing corn, soybean meal, and DDGS with the appropriate amount of NAR premix added to each. Pigs were weighed on d 0, 15, 29, 43, and 50 to determine initial weight, phase weights, and ADG. Feed issuance and volumetric feeder measures were recorded to determine ADFI and G:F. ADG of pigs fed NAR 30 or 15 was greater ($P < 0.05$) than that of CON on d 0 to 15 (0.81 or 0.79 kg vs. 0.73 kg), 16 to 29 (0.95 or 0.95 kg vs. 0.90 kg), 30 to 43 (0.98 or 0.98 kg vs. 0.94 kg), and 0 to 50. ADFI of pigs fed NAR 30 or 15 was greater ($P < 0.05$) than that of CON on d 0 to 15 (1.43 or 1.43 kg vs. 1.35 kg, 16 to 29 (1.91 or 1.94 vs. 1.81 kg), 30 to 43 (2.20 or 2.20 vs. 2.12 kg), and 0 to 50. G:F of pigs fed NAR 30 was greater ($P < 0.05$) than CON on d 0 to 15 (0.56 vs. 0.54) and d 0 to 50. In conclusion, growing pigs fed NAR 15 or 30 for 50 d have a greater ADG and ADFI than pigs fed CON, but only pigs fed NAR 30 have a greater overall G:F than those pigs fed CON.

Key Words: Narasin, Pig, Growing

Table 176.

Item	CON	NAR 15	NAR 30	SE	P
ADG, d 0 to 50	0.86 ^a	0.90 ^b	0.91 ^b	0.005	< 0.01
ADFI, d 0 to 50	1.84 ^a	1.92 ^b	1.91 ^b	0.014	< 0.01
G:F, d 0 to 50	0.47 ^a	0.47 ^{ab}	0.48 ^b	0.002	< 0.05

^{ab}Means without common superscripts differ at $P < 0.05$.

177 Determining the impact of By-O-Reg+ in diets with or without feed grade antibiotic on growth performance of nursery pigs. L. L. Thomas*, J. C. Woodworth, R. D. Goodband, J. M. DeRouchey, M. D. Tokach, S. S. Dritz, Kansas State University, Manhattan.

A total of 717 nursery pigs (PIC C-29 × 28 and PIC L3 × 1040, initially 5.67 ± 0.05 kg BW) from 2 consecutive nursery groups were used in a 35-d growth study. The objective was to determine the impact of feeding increasing levels of By-O-Reg+ in diets with or without antibiotic on nursery pig growth performance. By-O-Reg+ is registered trademark of Advanced Ag Products, Hudson, South Dakota and is a unique mixture of essential oils primarily based on oregano. Dietary treatments were offered immediately after weaning at approximately 21 d of age and were organized in a 2×3 factorial with main effects of antibiotic (none vs. 55 mg/kg of Carbadox) and By-O-Reg+ (0, 0.05, or 0.10%). Experimental diets were fed for 21 d and then fed a common diet for the final 14 d. Pens of pigs (5 barrows and 5 gilts) were balanced by initial BW and randomly allotted to treatments with 12 pens/treatment. During the period when treatments were fed (d 0 to 21), there were no interactions observed between By-O-Reg+ and Carbadox but increasing By-O-Reg+ improved (quadratic, $P = 0.016$) G:F. Pigs fed diets with Carbadox had improved ($P < 0.007$) ADG, ADFI, and G:F. From d 0 to 35, there was an interaction (linear, $P = 0.031$) observed for ADFI with pigs fed diets without Carbadox having decreased ADFI as By-O-Reg+ level increased, whereas when pigs were fed diets containing Carbadox, ADFI increased with increasing By-O-Reg+. There were no main effects of By-O-Reg+ observed for the overall data; however, adding Carbadox for 21 d after weaning improved ($P < 0.015$) ADG, ADFI, and final BW and tended to improve ($P < 0.087$) G:F d 0 to 35. Overall, this study confirms the benefit of including a feed grade medication in nursery pig diets to improve growth performance. Increasing By-O-Reg+ in diets elicited few changes in performance, but during the test period the pigs fed 0.05% By-O-Reg+ had better G:F than those fed none or 0.10% By-O-Reg+.

Key Words: antibiotics, nursery pigs, oregano

Table 177.

Antibiotic	Probability, $P <$						Probability, $P <$				
	-	-	-	+	+	+	By-O-Reg+			Interaction	
Added By-O-Reg+, %	0	0.05	0.10	0	0.05	0.10	Linear	Quadratic	Carbadox	Linear	Quadratic
d 0 to 21											
ADG, kg	0.19	0.20	0.19	0.21	0.22	0.22	0.215	0.463	< 0.0001	0.455	0.105
ADFI, kg	0.26	0.25	0.25	0.27	0.26	0.28	0.984	0.353	0.007	0.186	0.564
G:F	0.74	0.80	0.77	0.81	0.82	0.82	0.128	0.016	< 0.0001	0.394	0.108

SEM = 0.006 for ADG, 0.021 for ADFI, and 0.051 for G:F