



S-Carb® in Grow-Finish Pigs fed during Summer Months February 2016

Genesis Alkali recently completed a swine trial to evaluate the use of S-Carb under commercial conditions. A total of 1080 PISC pigs were fed from 32 to 280 lbs. Diets were corn and soybean based, balanced to NRC requirements. Pigs were housed in a confinement facility, over slats. Feed was provided free choice and measured daily by pen. The trial was begun in early June and complete mid-December. The maximum period of heat stress was during July through September. Although during this trial there were no prolonged periods of heat stress, as defined as more than 10 days with no significant relief at night.

The results of this study showed a benefit to increasing Dietary Electrolyte Balance (DEB) for pigs from starting on feed to 100 lbs. Results of the first two periods (41 days) are shown in the table below. During this time performance of the medium and high DEB treatments, with 0.3% / 0.4% S-Carb inclusions showed improved performance vs. the control. There was a significant linear response to increasing DEB at the end of the second period as measured by ADG, and FG. There were no differences observed throughout the trial in mortality or morbidity.

In later stages of the trial, the inclusion of S-Carb, and higher DEB levels showed mixed results. In general, as heat stress was at higher levels, the inclusion of S-Carb improved performance. Best performance with S-Carb tended to be with 0.15% or 0.30% inclusion. However this was not consistent throughout the trial, and needs further evaluation.

S-Carb: Pig Performance Start to 100 lbs.

	Control	S-Carb 0.15% Low DEB	S-Carb 0.30% Med DEB	S-Carb 0.40% High DEB	Probability		
					Control vs. S-Carb	Linear	Quad.
Head	270	270	270	270			
Reps/treatment	12	12	12	12			
Start wt lbs.	31.58	31.49	31.59	31.59			
Nursery 20 days							
DEB meq/kg	265	285	305	318			
End wt	59.32	59.12	59.56	59.81	0.56	0.12	0.41
ADG	1.38	1.38	1.39	1.41	0.56	0.11	0.38
ADFI	2.20	2.20	2.25	2.22	0.27	0.26	0.35
FG	1.59	1.60	1.62	1.57	0.60	0.69	0.08
Finisher 21 days							
DEB meq/kg	222	242	262	275			
End wt	98.87	98.88	100.28	100.05	0.08	0.01	0.77
ADG	1.87	1.89a	1.94	1.92	0.01	0.01	0.15
ADFI	3.67	3.60	3.65	3.61	0.21	0.33	0.70
FG	1.96	1.91b	1.88	1.88	.001	.001	0.22

Greiner, et. al. Midwest ASAS 2016