

gain/feed ratio (n=24) among the treatments ($P>0.05$). However, pigs fed the E2 diet had greater ($P<0.05$) average daily gain (n=24) than pigs fed LF diets during entire feeding period. Weekly backfat thickness and lean percent (n=48) were not affected ($P>0.05$) by the experimental diets during the entire 5-wk study period. No differences ($P>0.05$) were observed for concentrations of albumin, creatinine, blood urea nitrogen and total protein in serum (n=48) on 0, 14 and 35 days. On 7 days, creatinine concentrations was highest ($P<0.05$) for pigs fed the LF diet compare to pigs fed the E2 and FLF diets ($P<0.05$). During 35 days after weaning, pigs fed the E2 and FLF diets had a greater nitrogen digestibility (n=48) than pigs fed the LF diet ($P<0.05$). In conclusion, the results of this study indicate that fermented fish meal had similar effects on growth performance and nitrogen digestibility as compared to imported fish meal.

Key Words: Fish Meal, Nitrogen Digestibilities, Weaning Pigs

TH145 Effect of deoiled corn dried distillers grains with solubles, solvent extracted on nursery pig growth performance. J. Y. Jacela^{*1}, L. Brandts², J. M. DeRouchey¹, S. S. Dritz¹, M. D. Tokach¹, R. D. Goodband¹, J. L. Nelssen¹, R. C. Thaler², D. Peters², and D. E. Little³, ¹Kansas State University, Manhattan, ²South Dakota State University, Brookings, ³DairyNet Inc., Brookings, SD.

Deoiled corn dried distillers grains with solubles, solvent extracted (dDGS) is a co-product of ethanol production which is traditional dried distillers grains with solubles with a majority of oil removed. A total of 210 pigs (initial BW 9.9 kg) were used in a 28-day study to evaluate the effect of dDGS on nursery pig performance. From weaning to just prior to start of the trial, all pigs were placed on a common diet until they reached an average of 10 kg BW. Pigs were then blocked based on pen weights and each pen was randomly assigned to 1 of 5 dietary treatments. There were 7 pens per treatment with 6 pigs per pen. The treatments provided 0, 5, 10, 20, and 30% dDGS formulated to contain equivalent dietary ME and standardized ileal digestible (SID) lysine based from a previous study at Kansas State University. Pen weights were obtained on d 0, 14, and 28 and feed intake was recorded on a pen basis. Growth rate ($P>0.52$), feed intake ($P>0.95$), and feed efficiency ($P>0.55$) were similar between treatments regardless of the level of dDGS in the diet. Results from this experiment suggest that dDGS can be included in nursery pig diets of up to inclusion levels of 30% without affecting growth performance.

Table 1.

Item	dDGS, %					SE
	0	5	10	20	30	
Final wt, kg	22.7	22.8	22.2	22.4	22.3	0.6
ADG, g	455	459	452	445	442	19.7
ADFI, g	749	771	760	751	761	8.9
G:F	0.61	0.60	0.59	0.59	0.58	0.03

Key Words: Nursery Pig, Deoiled Corn Dried Distillers Grains, Growth

TH146 Evaluation of distillers dried grains with solubles (DDGS) and Allzyme[®] SSF in grow-finish pigs. J. Pierce* and J. Bannerman, Alltech, Inc., Nicholasville, KY.

An experiment was conducted to evaluate the effects of Allzyme[®]SSF on the growth performance and carcass quality of pigs fed diets containing graded levels of DDGS in grow-finish pigs. A total of 420 pigs (42 pens of 10 pigs/pen) were randomly allotted by weight and sex to six dietary treatments. Diets were corn-soybean meal based with DDGS substituting for corn and soybean meal. The diets were formulated to meet or exceed the NRC 1998 nutrient requirements for each of three growth phases. The six dietary treatments were arranged in a 3x2 factorial structure with 10, 20, or 30% DDGS without or with 200g/tonne of Allzyme[®]SSF, respectively. All pigs were weighed at the onset of the experiment and then 30, 73 and 111 days later. Each pig was tattooed and sent to a commercial slaughter facility in the Midwest. Backfat samples were taken from five randomly chosen carcasses from each pen and analyzed for iodine values (IV) as an indicator of the degree of fat saturation. Means for ADG and F:G for the entire 111 day experiment were 856, 855, 823, 855, 855, 853 g/d and 2.83, 2.83, 2.83, 2.76, 2.89, 2.83 for the six treatments, respectively. As the level of dietary DDGS was increased, ADG was decreased ($P<0.05$), however the addition of Allzyme[®]SSF maintained ADG which resulted in a DDGSxAllzyme[®]SSF interaction ($P<0.09$). Last rib back fat and ham pH were unchanged by treatment, however, loin depth decreased linearly as DDGS was increased in the diet ($P<0.05$). Iodine values increased linearly as DDGS was increased ($P<0.05$) indicating less saturated fat. The increased iodine values that result from feeding 30% DDGS to finishing pigs until slaughter may not currently be an acceptable practice because of reduced pork quality. However, there is a possibility of oil removal for biodiesel and other purposes growing in the future. The addition of Allzyme[®]SSF to diets containing DDGS can reduce cost of gain in growing-finishing swine while maintaining growth performance.

Key Words: Pigs, Distillers Grains, Enzyme

TH147 Comparison of finishing pigs performance when diets containing DL- methionine and cull chickpeas in substitution of soybean meal and corn. J. M. Uriarte*, J. F. Obregón, H. R. Guemez, F. G. Rios, and O. S. Acuña, Universidad Autónoma de Sinaloa, Culiacán, Sinaloa, México.

To determinate the effect of substitution of soybean meal and corn for cull chickpeas on growth performance, 48 pigs (BW = 53.63 ± 1.70 kg; Large white x Landrace x Large white x Pietrain) in groups of four were placed in 12 concrete floor pens (2.5 x 2.5 m). In a complete randomized experimental design, pens were fed one of three diets: 1) Diet with 15.2 % CP and 3.35 Mcal ME/kg, containing corn 76.5 %, soybean meal 15.5 %, and premix 4 % (CONT); 2) Diet with 17.1 % CP and 3.35 Mcal ME/kg with corn 42.5 %, cull chickpeas 50 %, soybean meal 3.5 %, and premix 4 % (CHP50) and 3) Diet similar to CHP50 with 0.2 % of methionine added (CHP50M). Pigs were weighed at days 0 and 48 of experiment and feed intake was recorded daily. The average daily gain (ADG) and feed intake/gain ratio were calculated from these data. Body weight at day 48 (95.17, 95.65 and 96.17 kg) was not affected ($P=0.91$) by CONT, CHP50 and CHP50M, respectively. ADG (0.82, 0.92 and 0.90 kg) was not similar ($P=0.04$) between dietary treatments.