678 Digestible energy in resistant starch and dietary fiber sources fed to pigs. S. K. Cervantes-Pahm*, B. G. Kim, and H. H. Stein, *University of Illinois*, *Urbana*.

An experiment was conducted to measure the concentration of apparent total tract digestible energy (ATT DE) in maltodextrin (MD), 2 sources of resistant starch (PROMITOR™ RS-60 and RS-75), PROMITOR™ soluble corn fiber (SCF), and biogum (BG). All fiber sources were provided by Tate and Lyle, Decatur, IL. A total of 72 castrated male pigs (initial BW: 22.3 ± 1.48 kg) were housed in metabolism crates equipped with a feeder and a nipple drinker and assigned to 6 treatments with 12 replicate pigs per treatment. A basal diet based on corn, soybean meal, and casein was formulated. Five additional diets were prepared by mixing 90% of the basal diet with 10% MD, RS-60, RS-75, SCF, or BG. The daily feed allowance was calculated as 2.5 times the estimated energy requirement for maintenance and pigs were fed 2 equal meals every day. Following a 7-d adaptation period, feces from all pigs were collected quantitatively during a 5-d period using the marker to marker procedure. The ATT DE for each ingredient was calculated using the difference procedure. The ATT DE in RS-60, RS-75, and SCF were less ($P < 0.05$) than in MD and BG, and BG contained less ($P < 0.05$) ATT DE than MD. However, there was no difference in the ATT DE values for RS-60, RS-75, and SCF. The present results indicate that resistant starch and soluble corn fiber can be used as low energy ingredients.

Table 1. Concentration of ATT DE in maltodextrin (MD), 60% resistant starch (RS-60), 75% resistant starch (RS-75), soluble corn fiber (SCF), and biogum (BG) fed to pigs

Item	MD	RS-60	RS-75	SCF	BG	SEM
Gross Energy, kcal/kg	3,914	3,738	3,835	3,760	3,850	-
ATT DE, kcal/kg	3,466[a]	1,776[c]	1,782[c]	1,936[c]	2,795[b]	189
ATT DE, kcal, kg DM	3,559[a]	1,973[c]	1,916[c]	2,062[c]	2,949[b]	200

[a-c]: Means within a row lacking a common superscript letter are different ($P < 0.05$)

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