844 Effect of feeding soy and sunflower based reconstituted fat or monoestearate as fat sources in piglet diets.

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A total of 216 weaned piglets (Large White x Landrace*Large White) were allocated at random to 4 experimental treatments (T1: basal diet, 4% soy oil; T2: 4% Soy+Sunflower oil fatty acids esterified with glycerol (reconstituted fat, RE); T3: 4% Soy+Sunflower oil monostearate (ME); and T4: 2% soy oil + 2% ME), including 6 replicates of 9 piglets per treatment (half male and half female). Mash feeds and water were offered ad libitum with no added growth promoter or veterinary antibiotics. A common prestarter diet was offered from weaning at 26 d during a week. Experimental treatments were applied in the starter diets from 33 to 63 d of age. After consuming the experimental diets for 9 d, fecal samples were taken to calculate nutrient digestibility. Observations included body weight (BW), growth (ADG), feed intake (ADFI), feed conversion ratio (FCR) and apparent fecal digestibility of dry matter, organic matter, ether extract and gross energy of the diets. Data were analyzed as a completely randomized design by GLM of SAS. No significant differences were observed between fat sources in any of the performance parameters studied (374, 368, 375, 357 g/d and 1.28, 1.34, 1.32, 1.35 g feed/g gain for growth and feed conversion at 33–63 d of age, for T1 to T4, respectively; $P > 0.10$). Significant differences were observed in digestibility between the 4 treatments. Apparent fecal digestibility of dry matter was improved with RE, ME and the combination when compared with the basal diet (68.8b, 75.0a, 78.1a, 76.6a %, $P = 0.0288$, for T1-T4, respectively). Apparent fecal digestibility of gross energy (DCGE) and organic matter (DCOM) were improved when ME or the combination were used, presenting RE intermediate results (DCGE: 68.7b, 73.5ab, 77.8a, 76.3a %, $P = 0.0334$; and DCOM: 73.8b, 78.2ab, 81.5a, 80.9a %, $P = 0.0246$, for T1-T4, respectively). It is concluded that soy and sunflower oil reconstituted fat or monostearate improve digestibility of piglet diets and can be used as an alternative to soya oil for weaned piglets.

Key words: monostearate, vegetable reconstituted fat, piglets

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