

PSIX-23 - Inclusion of cocoa husks in the diet for fattening pigs on lipid composition of backfat and muscle

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Cocoa husks are by-products of chocolate production, characterized by a high content of dietary fibre, proteins, lipids and polyphenols, which exert antioxidant activity. The present study investigated the effect of dietary inclusion of cocoa husks on the lipid composition of pig backfat and muscle. Eight finishing pigs were randomly assigned to one of two groups: CTRL, fed a conventional cereal-based diet, and COCOA, fed a diet obtained by substitution of 10% of the control diet with coarsely ground cocoa husks. After 6 weeks, pigs were slaughtered. During the experimental period, the dietary composition was analysed, nutrient digestibility of the diets and N balance were determined. At slaughtering, samples of backfat and *Biceps brachii* muscle were collected. Total lipids were extracted from samples and analysed for cholesterol content and for fatty acid composition. The experimental diets were isoproteic and isoenergetic, but polyphenolic content was 90% higher in COCOA than CTRL diet. Nutrient digestibility and N balance were not influenced by dietary treatment. Cocoa husks feeding did not affect total lipids and cholesterol, but increased by 50% the content of linoleic (18:2) and linolenic acid (18:3) in both backfat ($P < 0.05$) and biceps muscle ($P < 0.01$). Worldwide, sanitary authorities recommend increasing the ratio between polyunsaturated and saturated fatty acids of the diet, in order to reduce the risk of cardiovascular diseases. According to this, obtained results highlight a role for cocoa husks in improving the nutritional value of pork meat, which is a key factor in determining consumer choice.

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