On farm, broilers are given diets differing in feedstuffs contents depending on the low-cost formulation issues even though the nutritional supply is assumed to be similar. This study aimed at comparing apparent fecal digestibilities measured by marker (TiO2) of 18 different diets at 3 ages to test the feedstuffs’ effects and their evolutions through the growing period. The diets included a large spectrum of contrasted feedstuffs with 9 high- and 9 low-energy contents. They were given ad libitum to 8 Ross female broilers from 8 to 30 days-old for each diet. Broilers were in individual cages and their feces were collected 3 times 48 hours at 14, 21 and 28 days-old and pooled by group of 4 leading to 2 replicates for each diet at each time. On one hand, large variations were observed between diets regarding digestibilities in connection with the mix of feedstuffs measured and for AMEn related to high or low energy formulated level. On the other hand, first analysis did not allow discriminating digestibilities with age. Further statistical analyses are performed to split the observed variability between diet content, age and energy level.