A total of 145 pig carcasses with a net weight of 70 to 90 kg and a mean composition of \( x = 48.2 \) p. 100 muscles (\( \sigma_x = 6.03 \)) were dissected according to the EEC method. The estimations based on the composition of cuts were made according to the pieces used (partial dissection) and to the accuracy of the dissection procedure (simplified dissection). \( X_1 \) being the percentage of muscles only, \( X_2 \) the percentage of muscles plus intermuscular fat, \( X_3 \) that of meat without external fat but with bones.

The main results were the following:

1) After complete dissection of ham and loin + backfat the EEC reference relative to the percentage of muscle of the whole carcass was calculated with a residual error of 0.66 p. 100 muscle.

Total weight of muscles for the whole ham + loin with backfat allowed to control 98.7 p. 100 of the variance of the total weight of carcass muscles according to the following equation:

\[
(\text{weight of muscle from whole carcass}) \quad y = 0.533 + 1.397 \; Y_1 + 1.217 \; Y_2, \quad (R^2 = 0.987)
\]

2) The simplified dissection led to the following estimations of the EEC reference.

The percentage of lean + internal fat (\( X_1 \)) in ham and loin with backfat produced a residual error of 1.00 p. 100 muscles. The absence of trimming of internal fats overestimated by 3.1 to 3.3 p. 100 the percentage of muscles in fat pigs (threshold 40 p. 100) as compared with lean pigs (only 55 p. 100 of the EEC table).

The percentage of meat without external fat but with bones (\( X_3 \)) of all cuts produced a residual error of 1.44 to 1.71 p. 100 muscles. Deboning of ham reduced considerably the estimation error. Tables indicating the correspondence between the EEC reference and the composition of the main cuts were established. They may contribute to a rapid arbitrage of grading problems. This could result in a more harmonious application of EEC regulation.

The relationships between anatomical composition of ham (tissue percentages in the cut, percentage of each muscles within ham musculature) and conformation were studied. Conformation was defined by an objective index calculated from measurements taken on the profiles of the outlines of ham images.

Seventy-six pigs of various conformation and live weight (90 to 140 kg) were considered.