





CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## EVALUATION OF TISSUE COMPONENTS OF PIGS IN DIFFERENT WEIGHT RANGE THROUGH HH SECTION

Liliane O. PALHARES<sup>1</sup>, Wilson M. DUTRA JR.\*<sup>1</sup>, Marconi I. L. da SILVA<sup>1</sup>, Matheus S. da CRUZ<sup>1</sup>, Matheus R. do CARMO<sup>1</sup>, Karolayne R. S. de LIMA<sup>1</sup>, Tayara S. de LIMA<sup>1</sup>, Sandra P. GASPARINI<sup>1</sup>

<sup>1</sup> University Federal Rural of Pernambuco, Recife - Pernambuco, Brazil. lilianepalhares@zootecnista.com.br

The growth of the animals is promoted through the development of the tissues, following a sigmoid curve in relation to the time. The growth rate of the pigs there is an exponential growth in the initial phase until reaching the inflection point of the curve near to the adult body weight. During the growth of the animals there are some differentiations in tissue deposition rates (muscle, fat and bone). Therefore, it was interesting to investigate the behavior of the development of tissues in pigs, through the section between the ninth and eleventh ribs. Fifteen barrows Duroc were used, it was separated in three weight ranges: 50.86±1.29 kg; 71.25±1.63 kg e 92.97±2.82 kg. After the animals reached these weight ranges were slaughtered, taken to the cooling chamber, after 24 hours were sawn longitudinally and the right half carcass was withdrawn between the 9<sup>th</sup>, 10<sup>th</sup> and 11<sup>th</sup> ribs (HH section), this section is used to prediction of the physical composition of the bovine carcass. Then, the sections were weighed, dissected and isolated the bone, muscle, fat and skin. The results were submitted to regression analysis according to the weight range of the animals. There was an increasing linear behavior for all tissues evaluated (P<0.01) as a function of the three weight ranges (50, 70 and 90 kg). The following results were observed: muscle were 230 g, 355 g and 470 g, with R2 of 0.98; bones were 83 g, 1001 g and 129 g, with R2 of 0.63; fat were 115 g, 285 g and 532 g, with R2 de 0.75; and skin were 36 g, 43 g and 72 g, with R<sup>2</sup> of 0.89. The results demonstrate the increase in tissue growth according to the development of body weight, until the weight range of 90 kg. It can be observed that all the components presented a constant increase between the weight range of 50 to 90 kg without presenting reduction in development. Therefore, it can be concluded that the development of the tissues in pigs in the weight range of 50 to 90 kg is continuous and linear.

**Keywords:** Body composition, Growth, Physical properties, Pigs

















