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The accordance of RN⁻ phenotype with polymorphism of PKM2 gene and their relationship with meat quality values of Landrace pigs

S u m m a r y

The aim of investigations was to analyse the accordance of RN⁻ phenotype with polymorphism of PKM2 gene and their relationship with meat quality values of Landrace pigs. The work was conducted on 95 Landrace porkers. The animals were slaughtered at the Sokołów Meat Plant using an electric stunner and bled lying down. Animals with phenotype RN⁻/? in comparison to the animals with rn⁺rn⁺ phenotype were characterized by a slow decline in pH value till 35 min *post mortem*, by more intensive acidification of muscle *longissimus lumborum* since 24 to 144 h *post mortem*, brighter colour of meat and by lower water holding capacity (WHC). The porkers with genotype CC of PKM2 gene as compared to animals with CT and TT genotypes were characterized by with a lower value of glycolytic and glycogen potential, less intensive glycolytic and energetic transformation, as expressed by the lower lactic acid content and lower value of coefficient R₁, smaller acidification of muscle *longissimus lumborum* at 96 h and 144 h *post mortem*, by darker colour of meat and smaller drip loss at 96 h *post mortem*. From among the analysed porkers, genotype PKM2 is near to phenotype RN⁻. The high agreement of genotypes PKM2 (CT and TT) with phenotype RN⁻ (RN⁻RN⁻; RN⁻rn⁺) was found.