

HAL GENE POLYMORPHISM IN S LINE PIG HERDS AND ITS INFLUENCE ON PIG REPRODUCTION TRAITS

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Summary. It was defined that the HAL gene on the sixth pig chromosome influences the sensitiveness of pigs. Pigs that have a strong reaction to stress seem to be less resistant and have reduced meat quality. This type of pigs detected among pig breeds more frequently. Intensive metabolic processes in these animals induce growth but adaptation features are affected negatively.

Different breeds and lines have different reactions to stress. The most sensitive are Pietrain and different Landrace breeds. The S boar line is developed from the Pietrain breed. It was found that in this line the HAL gene is not fully eliminated. We can find pigs that are heterozygotic (NP status), so called HAL gene carriers. 75 % of sows tested were stress resistant and 25% were HAL gene carriers. The HAL gene influenced reproduction traits of sows- HAL gene carriers had fertilization rates less than 1.1%, litter size - on average reduced with 0.21 piglets, milk yield was reduced by 3.22 kg., and piglet survival was reduced by 6.3%.

Keywords: male lines, porcine stress syndrome (PSS), HAL gene, reproduction traits.