MATERIALS AND METHODS:
The influence of genotype × environment interaction on the performance (body weight, average daily gains, average daily consumption and feed conversion) of two genotype lines $F_1$ (PS59 PS19) and $F_2$ [(PS59 PS19) (PS59 PS19)] of HYPLUS broiler rabbits was analyzed. This study was carried out with 184 broiler rabbits in 5 independent experiments. Rabbits from commercial farms weaned at the age of 34 – 35 days were housed in stainless mesh cages placed in the experimental stable or in the fattening farm with ad libitum access to granulated feed and water. Performance traits were recorded in one-week intervals from 42 to 84 days of rabbit age.

STATISTICAL ANALYSIS:
The genotype × environment interaction was analyzed by the least-squares analysis using the GLM procedure (SAS, 2005). The following linear model was used:

$$Y_{ijkl} = \mu + \text{GENOT}_i + \text{REPL}_j + \text{ENV}_k + (\text{GENOT} \times \text{ENV})_{ij} + e_{ijkl}$$

$y_{ijkl}$ - observation, $\mu$ - overall mean, GENOT$_i$ - fixed effect of the $i$-th genotype, REPL$_j$ - fixed effect of the $j$-th replication nested in the $i$-th genotype, ENV$_k$ - fixed effect of the $k$-th environment, (GENOT × ENV)$_{ij}$ - fixed effect of the $ik$-th interaction genotype × environment, $e_{ijkl}$ - random residual error

CONCLUSION:
Results of this study suggested, that the average daily consumption and feed conversion of rabbits were influenced by the genotype environment interaction. The genotype × environment interaction had no significant effect on the growth performance of broiler rabbits.

RESULTS:
The genotype × environment interaction for the average daily consumption was significant (P<0.001) during the whole fattening period with the exception of period from 42 to 49 days of rabbit age. The influence of genotype × environment interaction to the rabbit growth was non-significant.