



Economic aspects of outdoor ranging behavior of valuable genotypes of slow-growing broilers

In practice, there is still limited knowledge about genetic selection possibilities to obtain a compromise between ranging behaviour, biologic and economic performance and health.

In PPILOW three different genetic breeds have been evaluated under organic conditions to compare the performance, health and welfare indicators of extreme animals in term of range use, so-called High- and Low-rangers. These breeds were the slow-growing S757N strain commonly reared in French label- or organic-type farms, the medium-growing JA757 strain which is commonly used in organic farms in Northern Europe, and a new dual-purpose genetic cross-breed, rather egg-type oriented, the C strain, with a much lower growth rate.

Economic evaluation

From the economic point of view the comparison of slow-growing (S757N), medium-growing (JA757) and dual-purpose (very) slow-growing genotypes for the organic production system showed the higher cost of dual-purpose C, taking into account the economic evaluations of dual C on-station and on-farm trials showing low growth rates and poor feed efficiency.

Figure 1 shows very high costs for dual-purpose C due to higher feeding period and lower final weight compared to S757N and JA757. Moreover, Figure 1 highlights that intermediate growing strains were much less costly to produce and already used in organic production, but only in some countries (Denmark, Germany) whereas they were not allowed on this purpose in other countries like France.

The higher cost of the Dual-purpose C was expected taking into account the economic evaluations of dual-C on-station and on-farm trials showing low growth rates and feed efficiency (see chapter 5.1). Because the C high rangers had a slightly better body weight than the C low rangers (even if not significantly) The costs calculated in the “faster-growing” genotypes JA757 and, to a lower extent, S757N, were much less, with an opposite rank between high rangers (more costly) and low-rangers probably due to the energy lost due to physical activity on the free range. Overall, the production costs of the medium growing JA757 chickens were lower than those of the slow-growing S757N chickens according to the data in INRAE experimental unit, it seemed to be sufficient to reduce slightly production costs.

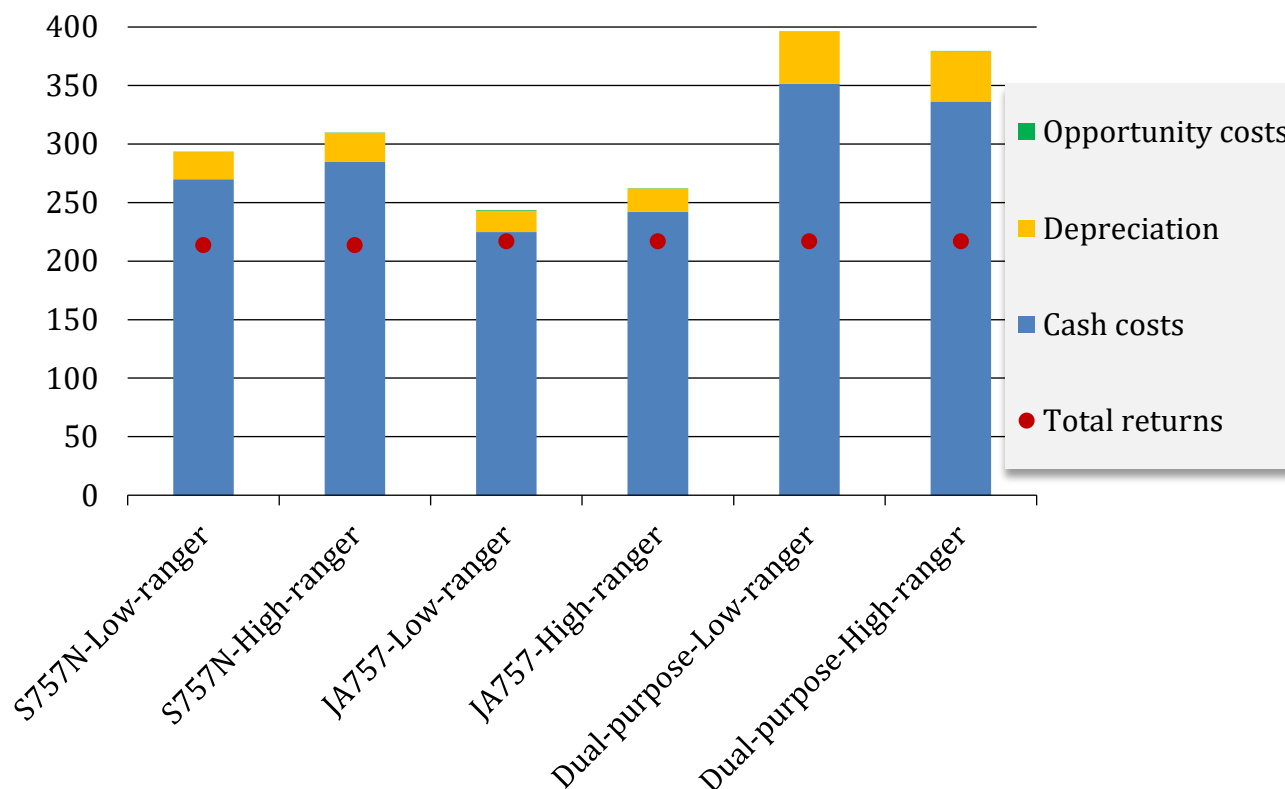


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Figure 1: Comparison of production costs (Euro/100 kg live weight)



Conclusion

This economic evaluation (see Table 1) interestingly pointed out that, if high-rangers were more costly than low-rangers in the slow and medium-growing genotypes, it was not the case in the dual-purpose strain considered. The selection of genetic breeds for the European organic broiler production could not only consider ethics and certification schemes, but also the potential trade-off between growth rate and the ability to use the free range.



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