

ATTEMPTS FOR OPTIMIZATION THE GENETIC IMPROVEMENT ACTIONS IN *PHASIANUS COLCHICUS COLCHICUS* POPULATION

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SUMMARY

The aim of this paper was to try to make efficient the genetic improvement actions of the *Phasianus Colchicus Colchicus* population from the Pișchia pheasant reserve, Timiș County. The study was carried out on a total of 11550 common game pheasants belonging to the Forestry District Timișoara. The stocks and delivery situation in year 2007 is presented in Table 1.

Table 1

Stocks and delivery situation of the pheasants from 2007 production, in December 312, 2007 [heads]

Annual program	Deliverable pheasant stock			Sold pheasants			Other exits
	Total	Cocks	Hens	Export	Internal	Populations	
11550	3346	1000	2346	2700	131	3000	2373

Based on the analysis made on the *Phasianus Colchicus Colchicus* population reared in Pișchia reserve, Timiș County, in the view of optimization the action of the genetic improvement, we could make the following recommendations: spring laying season should be designed for performance control, and the selected individuals, using a method similar to other species for the number of eggs, should reproduce the population during the second season induced through the lighting program; because we consider that the dominant autosomal gene for blue egg shell has a pleiotropic effect as reducing the hatchability, for incubation we recommend to use the dark brown eggs and possibly the light brown or grey eggs; in order to obtain pheasant carcasses with yellow skin, in the selection actions autosomal **w** and sex linked **id** genes should be favored; in order to obtain white skin pheasant carcasses, in the selection actions autosomal **W** and sex linked **Id** genes should be favored; for each trait that should be improved the following parameters should be viewed: economic importance, genetic parameters, if there is a complex or simple trait, if there is limited, influenced or linked to sex, if it is affected by the maternal effect, if requires or not slaughtering for knowing the own performances, if it is affected by a genotype-environment interaction; as much a trait is more complex, though is controlled by a wide polygenic complex, as much the own genetic parameters are modified compared to the genetic parameter of simple traits. This is the reason why the recommendation to keep as the genetic improvement objective simple traits is made; the whole genetic improvement objective should be simple that is to be composed by a low number of simple traits; the environment where the selection is carried out will be decided if the genotype-environment interaction exists or not.

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