



# Performance and effective population size of Genetic Resources in Czech Republic – Czech gold brindled hen



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## Introduction

Czech hen springs from peasant hen. It was the aboriginal domestic breed, which was kept on a large scale within Bohemia as well as within Moravia up the half of 19th century. Since the half of 19th century domestic hen were cross-bred with imported breeds from abroad. Around 1913 poultry regeneration was done by Škoda and Sedlák from the rest of peasant hen found within Bohemia and Bohemian and Moravian highlands. Škoda created two strains, one named Komorovický and the second one Czechsiccendorf. In 1924 these strains were recognized as a breed. Its breeding and other improvement became supported by the country.

**Keywords:** genetic resources, hens, status, performance, effective population size

## Methods

The annual reports of Czech breeder club from each year 2000 – 2008 we used for this paper. Excel were disposed for evaluation of effective population size, average and sum of the total number of birds, males and females of fowl. The results are presented in table and graph.

The calculation the formula with figure for effective population size  $N_e = 4(N_m \times N_f) / (N_m + N_f)$ .

## Results and conclusion

- average performance - 160,28 eggs per year, average egg weight 57,1 g, average hatchability 68,38 %
- effective population size were in range 59,84 – 102,69 among the years 2000 – 2008, with the average effective population size 78,74
- the breed has been included in endangered breeds.

Graph 1. Progression of performance and reproduction characters of Czech gold brindled hens in genetic resources

Tab. 1 Status and effective population size of Czech gold brindled hens

year	sum	hens	cocks	Ne
2000	211	193	18	65,86
2001	256	224	18	63,00
2002	337	309	28	102,69
2003	307	284	23	85,11
2004	305	284	21	78,22
2005	246	230	16	59,84
2006	317	296	21	78,44
2007	385	360	25	93,51
2008	325	303	22	82,04
average	298,78	275,89	21,33	78,74

