

POULTRY BIODIVERSITY IN BELGIUM

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Belgium is one of the countries with the richest poultry breed diversity. The present survey describes the importance of genetic resources by updating a list of chicken, turkey and waterfowl native breeds conserved at small-scale traditional farms, fanciers, academic and governmental research institutions. Collected data include species, breeds, breeding male and female population size, endangered status and maintained stocks for research or commercial activities.

The survey was conducted by the University of Liège, the Walloon and the Flemish fanciers associations with financial support from the Ministry of the Walloon Region (DGA). Individuals listed in the poultry fanciers membership directory (2005) indicated the number of breeding males (N_m) and females (N_f) for each native breed conserved. Universities and the industry were also contacted (via e-mail/telephone) to report on the status of their stocks. Endangered status evaluation was based on F.A.O. (2005) classification of domestic animals (Critical: $N_f < 100$ or $N_m < 5$; Endangered: $100 < N_f < 1,000$ or $5 < N_m < 20$; Safe: $N_f > 1,000$ or $N_m > 20$; Maintained when populations are preserved by active conservation programs, research institutions or companies).

A total of 4 species, 49 breeds and 10,799 fowls from 1,140 flocks were inventoried. More than 97% of these populations have been conserved by fanciers. Chickens accounted for 94,6%, turkeys for 3,2% and waterfowls for 2,2% of all populations. More than half of the chickens were large breeds. According to F.A.O. classification, 65% of Belgian poultry native breeds are considered under a critical status, 31% are endangered and only 4% are safe. Around 95% of the chicken and all turkey breeds are either under a critical or an endangered status. All duck and goose breeds have a critical status. None of the waterfowl breeds benefit from any conservation programs at the moment. All turkey and chicken maintained populations are conserved for research on growth and/or meat production.

Most of the Belgian old breeds (96%) are under a critical or an endangered status. There is a need for a concrete rescue operation to stop the rapid erosion of the remaining resources. The authors urge initiatives to maintain and promote the use of the native poultry breeds in Belgium. Suggested strategies for conserving avian genetic resources include in situ and ex situ methods: identification of candidate breeds for priority conservation, evaluation of genetic resources for potential contribution, promotion and use of native breeds in research and production, cryogenic preservation of semen, blastodisc or primordial germ cell.

Keywords: avian genetic resources; biodiversity; conservation

FAO (UNEP and IDAD), 2005. Recueil des lignes secondaires pour le développement de plans de gestion des ressources génétiques animales au niveau national. Gestion des petites populations à risques. p.34-37. <http://dad.fao.org/fr/refer/library/guidelin/sml-popn.pdf>, consulted the 20th of August, 2005.

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