



Introduction

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. The collected data include species, breeds, breeding male and female population size, endangered status and maintained stocks for research or commercial activities.

Material and methods

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 fancier membership directory (2005) indicated the number of breeding males (N_m) and females (N_f) for each native breed conserved. Universities and industries were also contacted (via e-mail or telephone) to report on the status of their stocks. Endangered status evaluation was based on FAO (2005) classification of domestic animals (Critical (red): $N_f < 100$ or $N_m < 5$; Endangered (yellow): $100 < N_f < 1,000$ or $5 < N_m < 20$; Safe (green): $N_f > 1,000$ or $N_m > 20$; maintained (M) when populations are preserved by active conservation programs, research institutions or companies).

Results & Discussion

























- 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. Nearly half of the chickens were large breeds.
- According to FAO classification, 65% of Belgian poultry breeds are under a critical status, 31% are endangered and only 4% are safe.
- 95% of the chicken breeds 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 conservation programs at the moment.
- All maintained populations in Belgium are conserved for research on growth and/or meat production.

Conclusion

Most of the Belgian old breeds (96%) are under critical or 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 of 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.

Table 1. Population size and endangered status of Belgian native breeds.

Species	Breed	WALLONIA			FLANDERS			BELGIUM			Risk status
		♂	♀	Total	♂	♀	Total	♂	♀	Total	
Chickens (small)	 Ardennaise naine	70	196	266	5	13	18	75	209	284	●
	 Barbu d'Anvers	155	434	589	238	644	882	393	1078	1471	●
	 Barbu de Boitsfort	5	14	19	0	0	0	5	14	19	●
	 Barbu de Grubbe	8	21	29	32	78	110	40	99	139	●
	 Barbu de Waes	0	0	0	13	41	54	13	41	54	●
	 Barbu de Watermael	93	259	352	69	196	265	162	455	617	●
	 Barbu d'Everberg	0	0	0	11	15	26	11	15	26	●
	 Barbu d'Uccle	60	168	228	103	244	347	163	412	575	●
	 Bassette	63	175	238	60	183	243	123	358	481	●
	 Belge naine	15	38	53	58	147	205	73	185	258	●
	 Bleue de Lasnes	10	28	38	0	0	0	10	28	38	●
	 Brabançonne naine	20	56	76	0	0	0	20	56	76	●
	 Braekel naine	8	21	29	0	0	0	8	21	29	●
	 Combattant de Liège nain	45	126	171	28	64	92	73	190	263	●
	 Combattant de Tirlemont nain	3	7	10	5	7	12	8	14	22	●
	 Famennoise naine	8	21	29	1	3	4	9	24	33	●
	 Fauve de Méhaigne	23	63	86	0	0	0	23	63	86	●
 Herve naine	33	91	124	1	3	4	34	94	128	●	
 Malines naine	3	7	10	16	73	89	19	80	99	●	
 Sans queue des Ardennes nain	15	42	57	0	0	0	15	42	57	●	
 Tournaisis	18	49	67	22	59	81	40	108	148	●	
			2466			2432			4898		
Chickens (large)	 Aarschot	0	0	0	11	38	49	11	38	49	●
	 Ardennaise	122	511	633	12	37	49	134	548	682	●
	 Brabançonne	18	62	80	38	119	157	56	181	237	●
	 Braekel	48	163	210	144	476	620	192	639	830	●
	 Combattant de Bruges	2	7	8	11	47	58	13	54	66	●
	 Combattant de Liège	34	117	151	27	99	126	61	216	277	●
	 Combattant de Tirlemont	4	13	17	3	7	10	7	20	27	●
	 Coucous de Flandres	0	0	0	12	41	53	12	41	53	●
	 Coucous d'Izegem	2	7	8	73	235	308	75	242	316	●
	 Famennoise	19	79	98	0	0	0	19	79	98	●
	 Fauve de Hesbaye	10	33	42	4	13	17	14	46	59	●
	 Herve	93	346	439	3	10	13	96	356	452	●
	 Malines	40	137	176	513	948	1461	553	1085	1637	●
	 Malines tête de dindon	25	85	109	37	123	160	62	208	269	●
	 Poule de la Zwalm	0	0	0	3	9	12	3	9	12	●
	Poule de Zingem	2	7	8	18	89	107	20	96	115	●
	Poulet de Zingem	0	0	0	1	1	2	1	1	2	●
Sans queue des Ardennes	17	59	76	0	0	0	17	59	76	●	
Zottegem	2	7	8	15	37	52	17	44	60	●	
			2064			3254			5318		
Ducks	 Canard de Forest	14	35	49	19	36	55	33	71	104	●
	 Canard de la Semois	6	15	21	9	9	18	15	24	39	●
	 Canard de Merchetem	2	5	7	5	10	15	7	15	22	●
	 Canard de Termonde	0	0	0	3	6	9	3	6	9	●
	 Canard Huttegem	0	0	0	4	12	16	4	12	16	●
			77			113			190		
Geese	 Oie de la Vire et du Ton	2	2	4	0	0	0	2	2	4	●
	 Oie flamande	3	4	7	14	23	37	17	27	44	●
			11			37			48		
Turkeys	 Dindon de Ronquières	47	136	183	25	72	97	72	208	280	●
	 Dindon rouge des Ardennes	9	27	36	9	20	29	18	47	65	●
			220			126			346		
			4837			5962			10799		



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A.I.W.E.A.B.C. asbl

L.F.N., V.I.V.F.N. vzm



Critical ●
 Endangered ●
 Safe ●
 Maintained M