

CONSERVATION OF BIODIVERSITY IN ITALIAN POULTRY BREEDS:
deepening and monitoring
TuBAvI-2



Breed data sheet

NERO D'ITALIA
Meleagris gallopavo Sp.

Origin and morphological,
genetic, reproductive,
and productive traits



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MINISTERO DELL'AGRICOLTURA
DELLA SOVRANITÀ ALIMENTARE
E DELLE FORESTE





The presented data were registered in nucleus populations conserved at the University of Milan (UniMI).

Latest update: May 7th, 2026



Nero d'Italia

Meleagris gallopavo Sp.

Breed data sheet: origin and morphological, genetic, reproductive, and productive traits

Breed origin and development

Name of the breed	Nero d'Italia
Synonyms or local names	-
Geographic origin	Lombardy
Geographic distribution	
Estimated total population size	35 (Castillo et al., 2021)
Extinction risk status (FAO, 1998)	Critical conserved
Any other specific information	

Historical origin
Even if the selection of the breed is recent, Nero d'Italia turkeys origin from a black turkey population spread throughout northern Italy before the introduction of American Bronze turkey. It is credible that Nero d'Italia breed could originate from the ancient French breed <i>Noir de Sologne</i>, once very appreciated in crossbreedings to improve local populations. In the past, Nero d'Italia females were used as brooding females, due to their very good brooding aptitude and to their light weight, which is not dangerous in case of stepping on the chicks.

Qualitative and quantitative morphological traits in adult breeders

Discrete or qualitative traits

Plumage colours	Black
Colour features	Single colour
Poult plumage colour	
Head	Naked in the male, slightly feathered in the female on the central part of the skull
Face	
Neck	Medium-lengthed, arched
Caruncles	Well developed, on the head and the naked part of the neck, larger on the lower part; red, changing to blueish-white when excited. The fleshy protruberance above the beak elongates during excitement, more in the male than in the female.
Throat wattle colour	
Iris colour	Dark
Beak colour	Dark
Skin colour	White
Shank colour	Black in young birds, dark red to purple in the adult
Shank feathering	Free from feathers
Skeletal variants	-
Other specific and distinct visible traits	-

Colour pattern
Brilliant black throughout with black down both in the male and in the female. A slight bronze edging on back and tail feathers is admitted.

Quantitative traits

Parameters	Male		Female	
	Average	Min-max	Average	Min-max
Body weight (g)	7775	6570-8640	3931	2870-4625
Body length (cm)	70.0	66.0-77.0	57.3	53.0-62.0
Chest circumference (cm)	62.0	58.0-66.0	46.5	44.0-50.0
Shank length (cm)	13.8	13.0-15.0	10.6	10.0-12.5
Shank diameter (cm)	2.0	1.8-2.1	1.7	1.6-1.8
Wing span (cm)	68.0	64.0-69.0	61.5	58.0-65.0

Genetic traits

Characterisation of the breed with Single Nucleotide Polymorphisms (SNPs)

Molecular marker	Axiom TurkeyHD Genotyping Array
Laboratory that performed the analyses	Laboratory of Animal Genetics and Genomics Department of Veterinary Medicine and Animal Science (DIVAS) University of Milan
Analysed parameters	MAF: minor allelic frequency Ho: observed heterozygosity He: expected heterozygosity F _{HOM} : inbreeding coefficient

Year		N**	MAF	Ho	He	F _{HOM}
2019	Average	26	0.17	0.248	0.221	-0.118
	SD*					0.32

*SD: standard deviation; **N: number of samples

Characterisation of nucleus populations with microsatellites and mating plans

Molecular marker	Microsatellites (7 markers)
Laboratory that performed the analyses	Laboratory of Animal Molecular Genetics Department of Veterinary Science (DSV) University of Turin
Analysed parameters	Ne: effective number of alleles Na: observed number of alleles I: Shannon diversity index H-Ind: individual variability index Ho: observed heterozygosity (average H-Ind) He: expected heterozygosity F: fixation index P: average kinship index
Indexes used to schedule mating plans	H-Ind P

Year		N**	Na	Ne	I	Ho	He	F	P
2024	Mean	11	2.429	1.274	0.356	0.182	0.178	-0.056	0.80
	SE*		0.612	0.116	0.141	0.066	0.068	0.063	0.02

*SE: standard error; **N: number of samples

Reproductive and productive quantitative traits

Oviposition, brooding and incubation data

Age at sexual maturity of females (weeks)	33-35
Length of first oviposition cycle (weeks)	24
Annual egg production per female (min-max)*	43 (31-47)

*As measured during the first year of age (Dec-Jun), min-max of family line

Egg-quality traits

Parameters	First oviposition cycle*	
	Average	Min-max
Egg weight (g)	73.1	62.0-89.0
Shell colour	Pinkish with brown speckles	

* Total n. of measured eggs: 217

Reproductive traits

Incubation parameters	First oviposition cycle	
	Average	Min-max*
Fertility (% incubated eggs)	75.4	12.5-100
Hatchability (% fertile eggs)	67.6	0-85.3
Hatchability (% incubated eggs)	50.8	0-85.3

*Per family line

Body weight and growth data

Age (weeks)	Male weight (g)		Female weight (g)	
	Average	SD*	Average	SD*
0 (hatching)	43.2	1.3	40.9	2.6
4	176.8	17.9	176.2	16.4
8	600.0	64.7	533.4	64.3
12	1548.0	99.3	1283.0	133.8
19	3585.0	99.0	2437.5	138.4
34	7237.5	618.7	3615.0	161.4

*SD: standard deviation

Rearing traits

Breed type	Very rustic breed, suited to extensive outdoor breeding
Growth speed	
Feathering speed	
Broodiness	High
Parental care attitude	
Ease of breeding	The breed is difficult to raise indoors, because of its wild temper
Male:female ratio for breeding	
Tolerance or resistance to diseases and parasites	
Tolerance to extremes of temperature	
Reported uses	Meat

Nero d'Italia male and female



Avian Center for the Conservation of Local
Genetic Resources, UniMI



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Bibliography

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https://ec.europa.eu/agriculture/rural-development-2014-2020_en

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