

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



Breed data sheet

ERMELLINATO DI ROVIGO

Meleagris gallopavo Sp.

Origin and morphological,
genetic, reproductive,
and productive traits



FONDO EUROPEO AGRICOLO PER LO SVILUPPO
RURALE: l'Europa investe nelle zone rurali



MINISTERO DELL'AGRICOLTURA
DELLA SOVRANITÀ ALIMENTARE
E DELLE FORESTE





The presented data were registered in the nucleus populations conserved at the University of Molise (UniMOL) and at "Sasse Rami" Experimental Farm, in Ceregnano (RO).

Latest update: December 29th, 2023



Ermellinato di Rovigo

Meleagris gallopavo Sp.

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

Breed origin and development

Name of the breed	Ermellinato di Rovigo
Synonyms or local names	-
Geographic origin	Veneto
Geographic distribution	Veneto
Estimated total population size	425 (Castillo et al., 2021)
Extinction risk status (FAO, 1998)	Threatened conserved
Any other specific information	-

<p>Historical origin</p> <p>The Ermellinato di Rovigo turkey was selected in 1958 at the Poultry Experimental Station in Rovigo, with the purpose to obtain a rustic breed, with very good grazing aptitude, and better performing than Common turkey from the productive and economic point of view. The goal was reached by cross-breeding it with the american breed Narragansett, which led to birds with grey plumage and reddish-brown shanks. Later on, following a mutation, some turkeys were born with ermin livery and flesh-coloured shanks. The selection of these birds led to the creation of a new breed, called the Ermellinato di Rovigo turkey, medium-sized, precocious, and with high feathering speed.</p> <p>Although typical of the Polesine area (in the province of Rovigo), it can be successfully reared in all the provinces of the region Veneto, and in other Italian regions.</p>
--

Qualitative and quantitative morphological traits in adult breeders

Discrete or qualitative traits

Plumage colours	Ermin
Plumage features	Bi-colour, white with black patterning
Chick plumage colour	Light yellow
Head	Free from feathers in the male, and slightly feathered in the female, with red caruncles that are variable in size and colour intensity
Face	Free from feathers, with bluish-red fleshy protruberances
Neck	In the upper part, bluish caruncles changing to red together with bird's excitement; white plumage
Caruncles	Red or bluish-red; the fleshy protruberance over the beak is generally well-developed
Throat wattle colour	Pale red, very developed
Iris colour	Generally dark, often brown; large brilliant eyes
Beak colour	Horn changing to light yellow; long and strong, slightly curved
Skin colour	White
Shank colour	Flesh coloured
Shank feathering	Free from feathers
Skeletal variants	-
Other specific and distinct visible traits	-

Plumage pattern
In the male , white ermin plumage, uniform throughout the body, with silver-grey shades and black stripes. Each feather crossed with a black band and edged with a white border, that is approximately two centimeters wide. Back, tail coverts, and sides show a stronger patterning. Breast with a scale pattern. Tail feathers with the same markings, but much wider white border. Primaries grey-black with white rachis, secondaries white with externals barbs that are black at the end. In the female , the pattern is the same, but much less evident.

Quantitative traits

Parameters	Male		Female	
	Average±SD*	Min-max	Average±SD*	Min-max
Body weight (g)	9025±359.2	8210-9700	5116±267.5	4600-5300
Body length (cm)	68±2.2	65-71	57±1.3	55-59
Chest circumference (cm)	59.5±2.0	56-63	48.1±1.4	46-51
Shank length (cm)	14.6±0.9	13-16	11.9±0.5	11-13
Shank diameter (cm)	-	-	-	-
Wing span (cm)	73.8±2.5	70-77	61.8±1.8	58-66

*SD: standard deviation

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	24	0.06	0.080	0.082	0.044
	SD*					0.118

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

Reproductive and productive quantitative traits

Oviposition, brooding and incubation data

Age at sexual maturity of females (weeks)	28
Annual egg production per female (min-max)*	70-100
Incubation length (days)	28

*As measured during the first year of age, min-max of family line

Egg-quality traits

Parameters	First oviposition cycle*
	Average
Egg weight (g)	68.2
Shell colour	Pink-white with speckles

* Total n. of measured eggs: 186

Reproductive traits

Incubation parameters	First oviposition cycle
	Average
Fertility (% produced eggs)	92.5
Hatchability (% fertile eggs)	53.5
Hatchability (% produced eggs)	49.5

Slaughter data (age: 190 days)

Slaughter parameters	Male	
	Average	SD*
Live weight (g)	7556	170
Carcass weight (eviscerated) (g)	5848	132
Carcass weight (eviscerated) yield (%)	77.4	0.80

*SD: standard deviation

Rearing traits

Breed type	Rural, rustic, and lively; very good grazer and insect hunter; well adapted to open air breeding, even in the mountains
Growth speed	High
Feathering speed	Precocious
Broodiness	Good
Parental care attitude	Present, for a short time after hatching
Ease of breeding	Need for careful health and nutritional management
Male:female ratio for breeding	1:5-12
Tolerance or resistance to diseases and parasites	No specific feature known
Tolerance to extremes of temperature	Not tolerant to extreme temperature, especially in winter

Ermellino di Rovigo male and female



Archivio del Prof. Gabriele Baldan
e del Prof. Massimo De Marchi (UniPD)



Archivio del Prof. Gabriele Baldan
e del Prof. Massimo De Marchi (UniPD)

Bibliography e sitography

Atlante dei Prodotti Agroalimentari del Veneto. Edited by *Veneto Agricoltura*, in cooperation with *Regione del Veneto*

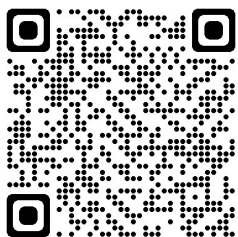
https://www.agraria.org/tacchini/ermellino_dirovigo.htm

TuBAvi (2017-20) TuBAvi-2 (2021-24)

Collective projects within the poultry sector funded with the support of the **European Agricultural Fund for Rural Development (EAFRD)**

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

Ministry of agriculture, food sovereignty and forestry –
National Rural Development Programme 2014/2022 – Measure 10.2 –
Conservation, use and sustainable development of genetic resources
in agriculture



Project coordinator

Prof. Silvia Cerolini

Department of Veterinary Medicine and Animal Sciences

University of Milan

Email silvia.cerolini@unimi.it

www.pollitaliani.it