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

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Ministry of agriculture, food sovereignty and forestry –
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CONSERVATION OF BIODIVERSITY IN ITALIAN POULTRY BREEDS:
deepening and monitoring
TuBAvI-2

Breed data sheet

PÉPOI

Gallus gallus domesticus 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 nucleus populations
conserved at the “Sasse Rami” Experimental Farm, in Ceregnano (Rovigo).

Latest update: October 14th, 2023

Pépoi

Gallus gallus domesticus Sp.

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

Breed origin and development

Name of the breed	Pépoi
Synonyms or local names	-
Geographic origin	Veneto
Geographic distribution	Veneto, Friuli-Venezia Giulia
Estimated total population size	899 (Castillo et al., 2021)
Extinction risk status (FAO, 1998)	Threatened conserved
Any other specific information	Small-sized breed

Historical origin
The Pépoi breed originated in the Veneto region and it is widely spread in the north-eastern Veneto and Friuli-Venezia Giulia regions. It is one of the very few small size breeds currently available on the market. It is included in the National Plan on Biodiversity in Agriculture as a local breed and in the Atlas of Traditional Agri-food Products (*Atlante dei Prodotti Agroalimentari Tradizionali*) of the Veneto region. Rearing of this rustic breed is easy and suitable for agritourism farms, educational farms and for the production of single-portion chicken. The breed is suitable for the valorisation of typical productions of the Veneto region.

Qualitative and quantitative morphological traits in adult breeders

Discrete or qualitative traits

Feather morphology	Normal
Feather distribution	Normal
Plumage structure	Adherent and soft
Plumage colour	Golden
Colour features	Bi-colour, with sexual dimorphism
Chick plumage colour	Light brown down with darker stripes on the back and head
Comb type	**Simple comb**
Comb spikes	Five spikes
Ear-lobe colour	Yellowish-white to red streaked with white
Beak colour	Yellow
Iris colour	Orange to red
Muffs	Absent
Beard	Absent
Tuft	Absent
Skin colour	Yellow
Shank colour	Yellow
Shank feathering	Free from feathers
Skeletal variants	-
Other specific and distinct visible traits	-

Colour pattern
In the **male**, head and cape golden, back golden red, chest, belly, and thighs black, tail black with green sheen and down grey. In the **female**, head and cape yellow, back, shoulders and wing coverts with uniform brownish ground with every feather shaded with black and a neat brilliant gold edge; chest salmon pink, belly and legs ash-brown with edging and patterning on the shafts, tail black with brown sheen, down grey.

Quantitative traits

Parameters	Male		Female	
	Average±SD*	Min-max	Average±SD*	Min-max
Body weight (g)	1860	1630-2260	1290	1110-1400
Body length (cm)	37	36-39	32	30-34
Chest circumference (cm)	33	29-39	29	26-31
Shank length (cm)	9	9-11	8	7-9
Shank diameter (cm)	5	4-5	4	3-4
Wing span (cm)	43	40-46	37	34-40

*SD: standard deviation

Pépoi male and female

UniPD

UniPD

Pépoi breed data sheet - Gallus gallus domesticus Sp.

Genetic traits

Characterisation of the breed with Single Nucleotide Polymorphisms (SNPs)

Molecular marker	Affymetrix Axiom 600K Chicken Genotyping Array
Laboratory that performed the analyses	Department of Agronomy, Food, Natural Resources, Animals and Environment (DAFNAE) University of Padua
Analysed parameters	MAF: minor allelic frequency Ho: observed heterozygosis He: expected heterozygosis F_{HOM}: inbreeding coefficient

Year		N**	MAF	Ho	He	F_{HOM}
2019	Mean	24	0.277	0.154	0.168	0.579
	SD*		0.341	0.191	0.196	0.039

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

Characterisation of nucleus populations with microsatellites

Molecular marker	Microsatellites (26 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 heterozygosis (average H-Ind) He: expected heterozygosis F: fixation index P: average kinship index

Year		N**	Na	Ne	I	Ho	He	F	P
2020	Mean	23	2.643	1.759	0.581	0.301	0.343	0.074	0.70
	SE*		0.372	0.190	0.116	0.058	0.067	0.060	

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

Reproductive and productive quantitative traits

Oviposition, brooding and incubation data

Age at sexual maturity of hens (weeks)	22-24
Length of first oviposition cycle (weeks)	N.a.**
Annual egg production per hen (min-max)*	160-180
Average clutch size (min-max)	N.a.**
Clutch interval (days)	N.a.**
Incubation length (days)	21

*As measured during the first year of age, min-max of family line
**N.a.: Not available information

Egg-quality traits

Parameters	First oviposition cycle	
	Average	Min-max
Egg weight (g)	42.5	Not available
Shell colour	Pale pink	

Parameters (sample measurement)	Average	Min-max
Egg weight (g)	48.5	45.0-52.0
Shell weight (g)	4.80	4.34-5.26
Albumen weight (g)	28.7	26.3-31.1
Yolk weight (g)	14.5	13.3-15.7
Egg Shape Index*	0.77	0.73-0.80

* Egg Shape Index (ESI) = short diameter/long diameter x 100

Reproductive traits

Incubation parameters	First oviposition cycle	
	Average	Min-max*
Fertility (% produced eggs)	71	61-80
Hatchability (% fertile eggs)	48	46-58
Hatchability (% produced eggs)	34	28-46

*Per family line

Slaughter data (age: 27 weeks; males)

Slaughter parameters	Average
Live weight (g)	1434
Carcass weight (eviscerated) (g)	879
Carcass weight (eviscerated) yeald (%)	61.3

Pépoi breed data sheet - Gallus gallus domesticus Sp.

Rearing traits

Breed type	Rustic, good grazer
Growth speed (precocious *vs* tardive)	Precocious
Feathering speed (precocious *vs* tardive)	Precocious
Broodiness	Yes
Parental care attitude	Yes
Ease of breeding	Yes
Male:female ratio for breeding	1:10-12
Tolerance or resistance to diseases and parasites	Yes
Tolerance to extremes of temperature	Yes
Reported uses (meat, eggs)	Primary: eggs Secondary: meat