

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



Breed data sheet

ROMAGNOLO
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 nucleus populations conserved at the University of Molise (UniMOL).
The data are presented by breed.

Latest update: October 27th, 2023



Romagnolo

Meleagris gallopavo Sp.

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

Breed origin and development

Name of the breed	Romagnolo
Synonyms or local names	Tacchino di Romagna
Geographic origin	Romagna
Geographic distribution	Emilia-Romagna
Estimated total population size	31 (Castillo et al., 2021)
Extinction risk status (FAO, 1998)	Critical conserved
Any other specific information	-

<p>Historical origin</p> <p>Romagnolo turkey is a breed originated in Romagna, with a unique role in local poultry history. According to some authors, Romagnolo was not considered to be a real breed, in the past. It was rather thought to be an ecotype born of local turkeys cross-breeding. This could depend on its straw-yellow skin and small size, which made it unattractive on local markets. Nonetheless, Romagnolo turkeys were very appreciated abroad, in particular in France, especially small size birds, weighing 2,5-3 kg.</p> <p>Romagnolo breed differs from other Italian autochthonous breeds in some unique traits, such as small size, yellow skin, and a remarkable genetic variety in colours. In the past, it was reared mainly for the brooding aptitude of the females and for meat quality, held to be tasty and of high quality.</p> <p>Nowadays, rearing and conservation of Romagnolo turkeys are mainly in charge of fancy breeders and breeder associations, among which A.R.V.A.R., Romagna Autochthonous Breed and Variety Association (<i>Associazione Razze e Varietà Autoctone Romagnole</i>), plays a prominent role, having been committed for years in Romagnolo breed safeguard and rescue.</p>

Qualitative and quantitative morphological traits in adult breeders

Discrete or qualitative traits

Plumage colours	White mottled with black, White mottled with red, Black-winged bronze, Greyish (<i>Grigiastro</i>), Multi-coloured (<i>Variopinto</i>), Uniform red (<i>Rosso uniforme</i>), Discoloured black (<i>Nero sbiadito</i>)
Plumage features	Single colour: Black-winged bronze, Greyish, Uniform red, Discoloured black Bi-colour: White mottled with black, White mottled with red, Multi-coloured Depending on the colour, primaries and secondaries can lack the classic alternate stripe pattern (barring).
Poult plumage colour	Yellow to grey, with uniform, streaked or striped down
Head	Generally naked, medium to small-sized
Face	Naked, with medium-developement, fine-grain caruncles, red to blueish or white depending on the bird mood
Neck	Variable in colour, arched and medium-lengthed, with caruncles on the upper part; the wattle on the upper front neck is more developed in the male.
Caruncles	Medium-developement, fine-grain, red to blueish. The fleshy protruberance above the beak is usually present.
Throat wattle colour	Variable, often in synchronisation with caruncles' colour
Iris colour	Dark brown to black, with protruding pupil; large, very lively eyes
Beak colour	Horn; quite short, but strong, and slightly arched
Skin colour	Bright yellow to pale straw yellow
Shank colour	Black to horn, up to streaked
Shank feathering	Free from feathers
Skeletal variants	-
Other specific and distinct visible traits	Particularly small size and yellow skin

Plumage pattern
<p>Several colours are admitted, which could make Romagnolo look similar to other Italian autochthonous breeds. However, the best traits to identify this breed are the particularly small size and the yellowish colouring of the skin. Colours can lack uniformity, as birds are not selected by colour.</p> <p>White mottled with black: speckled or classic ermin pattern</p> <p>Greyish: silver pencilled with black mesh pattern</p> <p>Multi-coloured: combination of black, red, and white hues, with iridescent areas</p> <p>Uniform red: uniform red, throughout the whole plumage</p> <p>Discoloured black: ink black, without any iridescence</p>

Quantitative traits

Parameters	Male		Female	
	Average±SD*	Min-max	Average±SD*	Min-max
Body weight (g)	6430±1280	5528-7895	3560±75.50	3490-3640
Body length (cm)	60.80±4.10	56.80-65.00	52.90±4.25	50.30-57.80
Chest circumference (cm)	57.60±1.05	56.50-58.60	42.73±3.28	40.50-46.50
Shank length (cm)	13.60±0.35	13.20-13.80	11.80±0.87	11.30-12.80
Shank diameter (cm)	2.10±0.03	2.07-2.13	1.76±0.05	1.72-1.81
Wing span (cm)	57.03±1.62	55.30-58.50	50.57±4.95	45.70-55.60

*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	29	0.17	0.223	0.230	0.049
	SD*					0.144

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

Reproductive and productive quantitative traits

Oviposition, brooding and incubation data

Age at sexual maturity of females (weeks)	20-22
Incubation length (days)	28

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

Reproductive traits

Incubation parameters	First oviposition cycle	
	Average	Min-max*
Fertility (% produced)	40.4	33.3-47.8
Hatchability (% fertile)	78.9	72.7-87.5
Hatchability (% produced)	31.9	29.2-34.8

*Per family line

Body weight and growth data

Age (weeks)	Male weight (g)		Female weight (g)	
	Average	SD*	Average	SD*
0 (hatching)	50.33	4.03	50.00	4.00
4	324.67	47.70	382.00	52.00
8	952.17	129.70	610.00	117.18
12	1706.67	232.35	1188.33	207.85
16	2713.60	425.54	1473.67	206.34
20	3760.00	926.80	2136.67	108.52
24	4684.80	1223.59	2488.67	212.35

*SD: standard deviation

Rearing traits

Breed type	Rural and rustic
Growth speed	Medium
Feathering speed	On average precocious
Broodiness	Good
Parental care attitude	Good
Ease of breeding	Good
Male:female ratio for breeding	1:4-6
Tolerance or resistance to diseases and parasites	Good resistance to most of common turkey diseases
Tolerance to extremes of temperature	Robust and resistant to cold

Romagnolo male and female

The Variopinto



Male, Bramante Giuseppe Farm, UniMOL

The slate



Females, Bramante Giuseppe Farm, UniMOL

Bibliography and sitography

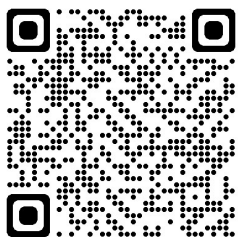
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https://ec.europa.eu/agriculture/rural-development-2014-2020_en

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