

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



Breed data sheet

VALDARNO

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 the nucleus population of Valdarno conserved at the University of Florence (UniFI).

Latest update: November 15th, 2024



Valdarno

Gallus gallus domesticus Sp.

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

Breed origin and development

| | |
|------------------------------------|--|
| Name of the breed | Valdarno |
| Synonyms or local names | |
| Geographic origin | Tuscany, river Arno surroundings |
| Geographic distribution | |
| Estimated total population size | 50 (Castillo et al., 2021) |
| Extinction risk status (FAO, 1998) | Critical conserved |
| Any other specific information | Evidently rural chicken, elegant, lively |

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| Historical origin |
| The name “Valdarno” derives from the original diffusion area of the breed, the valley extending north of river Arno, between Florence and Pisa. The breed was acknowledged by Italian Aviculture Society (<i>Società Italiana d’Avicoltura</i>), the official authority at that time, in 1905, and was still present in the territory at the end of the 1900s. It became extinct after the second world war. In 1998, the breed was selected again and officially presented at the Italian Poultry Competition. |

Qualitative and quantitative morphological traits (individual traits) in adult breeders

Discrete or qualitative traits

| | |
|--|--|
| Feather morphology | Normal |
| Feather distribution | Normal |
| Plumage structure | Quite broad, not too soft, well adherent to the body |
| Plumage colour | Black |
| Colour features | Single colour, without sexual dimorphism |
| Chick plumage colour | |
| Comb type | Simple comb , quite developed, more than average size, bright red, upright in the male, gracefully falling to one side after the second spike in the female |
| Comb spikes | Five to six spikes, well formed, broad at the base, quite deeply serrated, forming a regular curve, blade following the line of the head without touching the neck |
| Ear-lobe colour | Porcelaine white |
| Beak colour | Black |
| Iris colour | Orange-red to dark red |
| Muffs | Absent |
| Beard | Absent |
| Tuft | Absent |
| Skin colour | White |
| Shank colour | Dark slate |
| Shank feathering | Free from feathers |
| Skeletal variants | - |
| Other specific and distinct visible traits | Face intense red, smooth and free from feathers; wattles bright red, quite long, not split, without folds or wrinkles |

| |
|---|
| Colour pattern |
| Uniform brilliant black, with strong beetle-green sheen, especially in the male; down slate to black. |

Genetic traits

Characterisation of nucleus populations with microsatellites and mating plans

| | |
|--|---|
| 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 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 |
|------|------|-----|-------|-------|-------|-------|-------|-------|------|
| 2023 | Mean | 51 | 4.462 | 2.586 | 1.004 | 0.499 | 0.544 | 0.082 | 0.54 |
| | SE* | | 0.478 | 0.244 | 0.086 | 0.039 | 0.036 | 0.034 | 0.00 |

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

Valdarno male and female



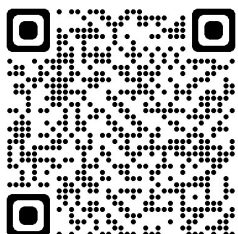
Experimental Animal Farms, UniFI

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

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

Ministry of agriculture, food sovereignty and forestry –
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Conservation, use and sustainable development of genetic resources
in agriculture



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