



Can we still learn from the ancient Romans? - Recommendations for keeping laying hens in the Roman Empire versus EU welfare regulations

Jörg Hartung¹ & Johann Schäffer²

¹ Univ.-Prof. em. Dr. Dr. h. c. Jörg Hartung, Institute for Animal Hygiene, Animal Welfare and Farm Animal Behaviour, University of Veterinary Medicine Hannover, Bünteweg 17 P, D-30559 Hannover, Joerg.Hartung@tiho-hannover.de

² Univ.-Prof. Dr. Dr. Johann Schäffer, Department of Veterinary History and Domesticated Animals, University of Veterinary Medicine Hannover, Bischofsholer Damm 15, D-30173 Hannover, Johann.Schaeffer@tiho-hannover.de



German edition of Varro's „De re rustica“ from 1730 (Univ. of Vet. Med. Hannover, Library). Varro began his original Latin work in his 80th year, 36 BC; he died 27 BC.

The welfare of laying hens in modern housing systems is one of the most disputed animal welfare topics over the last 30 years in Europe. Sometimes it is helpful to look back to our ancestors how they kept their animals. Table 1 compares most important requirements of the present animal welfare regulation for laying hens in the EU (Council Directive 1999/74/EC) and the recommendations given in the books on agriculture by Marcus Terentius Varro (116-27 BC, De re rustica 3,2 - 3,11), Lucius Junius Moderatus Columella († ca. 70 AD, De re rustica 8,2 - 8,15) and in the medieval Geoponica (10th century AD, book 14, 7-17), how laying hens should be kept in the Roman Empire. It turns out that the ancient recommendations fit very well with our recent and “modern” welfare legislation for laying hens.

Table 1: Most important requirements for laying hens today and 2000 years ago

Requirements / Recommendations	Council Directive 1999/74/EC	Roman times (literature)
- perches	yes	yes
- separate laying nest	yes	yes
- dust bath	yes	yes
- outdoor scratching area	(yes)	yes



Laying hens and two cocks in front of a mobile hen house (Taciturnus senilis, ca. 1320, Lombardi, Cod. Vindob. ser. nov. 2644, fol. 65r). [Published and commented by Ruth M. Hirschberg (2010), Hausiere im Mittelalter: Geflügel und seine Haltung. Kartfunkel - Küche im Mittelalter 3, 26-29.]

Perches, laying nests, litter for dust bathing and protected outdoor scratching areas were obviously provided for hens in practice already 2000 years ago. It is interesting to read that the animal caretaker had a separate room in the laying hen barn where he prepared the feed and from where he was able to supervise the animals. Herds of 200 birds seemed to be common in those days. When comparing our present regulation and the early recommendations only two striking differences appear. (1) Herd size and animal density were much lower in ancient days, although clear figures of birds/m² are missing. (2) Access holes in the wall to the outdoor scratching area were placed high under the roof and not close to the floor as today. This may indicate that laying hens of those days were still able to fly high. Outdoor scratching areas were covered by nets protecting the hens from prey birds and preventing them from escaping across the solid walls around the outdoor areas providing shelter from predators like foxes.



Laying hens intra domum. Indoor view of a hen house (Taciturnus senilis, ca. 1320, Lombardi, Cod. Vindob. ser. nov. 2644, fol. 65v). [Published and commented by Ruth M. Hirschberg (2010), Hausiere im Mittelalter: Geflügel und seine Haltung. Kartfunkel - Küche im Mittelalter 3, 26-29.]

Conclusion: Already in the Roman Empire farmers looked very closely after their laying hens and designed hen houses which met most of modern EU regulations and of the Five Freedoms (Brambell Report 1965, UK). The principles of good feeding, safe housing, protection from fear and unnecessary pain and satisfying behavioural needs were well recognised and described. The farmers in those days did not spend millions of research money to find out about the needs of hens and of “welfare quality”, they just followed their human sense and tried to grant their birds a “life worth living”. It took us nearly 2,000 years to re-discover this animal-friendly attitude.



Farming life in the month February (Breviarium Simani, February, Flandern, ca. 1510, Verice, Biblioteca Marciana). [www.wikimedia, commons]



Diese Hühner machen mobil
 New ways on old paths ...
 „Modern“ mobile laying hen house.



Columella identified Tansagitan, Rhodic, Chalcidic and Median breeds, which had an impressive appearance, a quarternose nature and were used for cockfighting in Greece. For farming, native (Roman) chickens were preferred, or crossbreeds of native hens and Greek cocks. Dwarf chickens were more bred for pleasure than for production.

The ideal flock consisted of 200 birds, which was easily supervised by one person. White chickens should be avoided because of their low fertility and because they are easily caught by eagles or goshawks. One cock should be kept for five hens. The very heavy Rhodian and Median chickens breed less active, therefore one cock should be kept with three hens only. Hens of heavy fowls are poor hatcher; therefore their eggs are best hatched by normal hens. A hen can hatch between 15-23 eggs, depending on season, and can supervise up to 20 hatchlings. Eggs that are long and pointed give more male, rounded eggs mainly female hatchlings.

Hen coops should face southeast and be adjacent to the kitchen, as smoke is beneficial for the animals. Coops should consist of three rooms and possess a hearth. Dry dust or ash should be provided for dust-baths.
 [modified after <http://thecooldickensreturm.blogspot.de/>]



Also Conrad Gesner adopted the Roman methods on keeping laying hens in his „Book on Birds“ [part of „Historiae animalium“, first published 1551-1558 at Zurich].



Laying hens today in a protected outdoor scratching area.
 (Research and Field Station Ruthe of the University of Veterinary Medicine Hannover, Photo Schäffer 2011)