



KEY WORDS

- ✓ Broiler chicken
- ✓ Anadolu-T
- ✓ On-farm hatching
- ✓ Hatching
- ✓ Growth performance
- ✓ Animal welfare
- ✓ Animal behaviour

CONTACT

E-MAIL:
meryemguler7@hotmail.com

THESIS SUPERVISOR

TELEPHONE:
0224-294-1352

E-MAIL:
petek@uludag.edu.tr



EFFECTS OF ON FARM HATCHING ON HATCHING RESULTS AND GROWTH PERFORMANCE, ANIMAL WELFARE AND BEHAVIOUR OF DIFFERENT BROILER GENOTYPES

Meryem GÜLER

0000-0002-6337-6035

BURSA ULUDAĞ UNIVERSITY
GRADUATE SCHOOL OF HEALTH SCIENCES
ANIMAL SCIENCE DEPARTMENT
PhD PROGRAM
GRADUATION DATE: 01/06/2026

SUPERVISOR

Prof. Dr. Metin PETEK
0000-0003-4560-2438
BURSA ULUDAĞ UNIVERSITY
GRADUATE SCHOOL OF HEALTH
SCIENCES
ANIMAL SCIENCE DEPARTMENT
BURSA – TÜRKİYE



THESIS ABSTRACT

This study was conducted to investigate the effects of comparing on-farm hatching and conventional (machine) hatching practices on incubation results, growth performance, animal welfare, and behaviour, as well as subsequent carcass characteristics in local Anadolu-T, commercial Cobb 500, and Ross 308 genotype broilers. In conclusion, it was determined that on-farm hatching can be used instead of conventional hatching, and that Anadolu-T can be utilized in alternative broiler meat production.

APPLICATION AREAS OF THE THESIS RESULTS

The results of the study indicate that, under appropriate conditions, the on-farm hatching system can be an alternative to the traditional method, reducing the incubation period by 3 days and potentially eliminating the need for hatchers. However, this situation necessitates producer training and new legal regulations regarding biosecurity. The integration of Anadolu-T into alternative production systems and its potential to be sold at a higher price render its use in broiler meat production promising.

ACADEMIC ACTIVITIES

- 1.Güler, M., & Petek, M. (2026). Effects of on-farm hatching on hatching success and first-week chick performance of local and commercial broiler genotypes. *Archives of Animal Breeding*, 69, 181–192. <https://doi.org/10.5194/aab-69-181-2026>
- 2.Güler, M., & Petek, M. (2026). Effects of on-farm hatching system on subsequent growth performance and carcass yields of different broiler genotypes. *Journal of the Hellenic Veterinary Medical Society*. <https://doi.org/10.12681/jhvms.42304>
- 3.Petek, M., Güler, M., & Selvi, T. N.(2026). Effects of different thawing techniques on the meat quality of local and commercial broiler chickens. *Journal of Research in Veterinary Medicine*. <https://doi.org/10.30782/jrvms.1799235>
- 4.Güler, M. & Petek, M. (2024). Effects of on-farm hatching on chick length and first-day chick behavior of different broiler genotypes. *International Poultry Congress 2024, Bursa, Türkiye*, 146.
- 5.Güler, M. & Petek, M. (2025). Kümeste civciv çıkımı uygulamasının broyler damızlık yumurtalarda kuluçka performansı ve civciv kalitesi üzerine etkileri. 7. *Uluslararası Beyaz Et Kongresi, Antalya, Türkiye*, 220–225.

