



# Akademik Yazım ve Sunum Becerileri

(Ders Notu\*)

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<sup>\*</sup> Ders notunun hazırlanmasında kullanılan kaynaklar son sayfada toplu olarak verilmiştir.

### Akademik Yazımda Temel Kurallar Nelerdir?

### (Akademik Dil Kullanımı)

### Başlık

 Çalışmayı yansıtacak şekilde net, anlaşılır ve mümkün olduğu kadar kısa olmalıdır. Arch. Anim. Breed., 62, 241–248, 2019 https://doi.org/10.5194/aab-62-241-2019 © Author(s) 2019. This work is distributed under the Creative Commons Attribution 4.0 License.





Relationship between insulin-like growth factor-1 (IGF-1) concentrations and body trait measurements and climatic factors in prepubertal goat kids

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Effect of shearing on some physiological and hormonal parameters in Akkaraman sheep

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#### Özet

- Bu çalışmayı niçin yaptın? (Amaç)
- □ Nasıl yaptın?
- □ Ne buldun? (istatistik analiz sonuçlarına göre)
- Bulduklarının anlamı veya önemi nedir?
- Sınırlı harf/kelime (ortalama 250-300 kelime)
- Bu kısımda referans verilmez.
- İlk kullanımda kısaltmaları tanımlayın (örneğin GCAA (günlük canlı ağırlık artışı))

### Özet

**Abstract.** This study aimed to investigate relations between insulin-like growth factor-1 (IGF-1) concentrations and some body trait measurements (body weight, withers height, rump height, body length, chest depth, chest width, chest girth and cannon bone circumference) and climatic factors in prepubertal male and female White (75 % Saanen and 25 % Kilis goat) and Angora goat kids. For this purpose, blood samples were regularly taken from the vena jugularis, and body trait measurements were regularly carried out (every 15 d for 5 months) on each kid. The IGF-1 analysis on the blood serum was performed using the enzyme immunoassay (EIA) method. Climatic values and the length of the photoperiod were obtained from the Turkish State Meteorological Service for the experimental period, and the temperature-humidity index (THI) was calculated using these values. Statistical analysis showed that the IGF-1 concentrations were higher (P < 0.05) in female White goat kids. Furthermore, differences in IGF-1 concentrations were found (P < 0.05) between periods and between the gender groups for both the White and the Angora goat kids. Moreover, the difference between the IGF-1 concentrations between genders was higher (P < 0.05) in White goat kids. Additionally, positive and significant correlations were found between IGF-1 concentrations and some body trait measurements in prepubertal kids, except for in female White goat kids. In summary, it was found that there was a significant relationship between IGF-1 concentrations and growth characteristics of the goat kids. Furthermore, IGF-1 concentrations in the goat kids were significantly influenced by climatic factors such as photoperiod, temperature and the temperature-humidity index, with the release of IGF-1 increasing due to increases in the photoperiod and the environmental temperature.

### Özet

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**Objective:** Shearing is one of the practices that is applied periodically to fiber producing animals, which can also alter resistance of animals to high temperatures in especially summer months. This study aimed to investigate effects of shearing on some physiological and hormonal parameters in Akkaraman sheep during summer season.

Methods: This study was carried out on 39 non-pregnant Akkaraman ewes (aged 1.5 years at the beginning of experiment). The 39 ewes were chosen randomly from the flock belonging to the Erciyes University and they were assigned to two groups as follows: i) group A (n = 20) designed as the control group, they were shorn and group B (n = 19) designed as the experimental group, they were unshorn. Prior to the shearing (–1 day) and on days 1, 7, 15, 30, 45, 60, 75, and 90 following the shearing, blood samples were taken from the vena jugularis of each sheep. Cortisol, β-endorphin, growth hormone (GH), thyroxine ( $T_4$ ), triiodothyronine ( $T_3$ ), and heat shock protein 70 (HSP-70) concentrations were determined using the enzyme immunoassay method. Body weight (BW), rectal temperature (RT), pulse rate (PR), and respiratory rate (RR) of each sheep were recorded at the same time. The data obtained were analyzed using two-way repeated measures analysis of variance.

**Results:** Statistical analysis showed a significant effect of shearing×period interaction (p< 0.01) and a significant effect of period (p<0.01) on BW, HSP-70, cortisol,  $T_4$  and RT, PR, GH,  $\beta$ -endorphin,  $T_3$ , respectively. Also these analysis showed no significant effect of shearing× period interaction or period on RR.

**Conclusion:** The results showed that the thermoregulation abilities of sheep were affected by shearing treatment and the shorn ewes were less affected by heat stress. In conclusion, based on the data of this study, shearing can be considered as a necessary management practice that requires protection for sheep from the effect of heat stress.

#### **Anahtar Kelimeler**

- İlgili dergiye bağlıdır (Ortalama 4-5 tane)
- Anahtar kelimeler arama kriteri olarak kullanılmaktadır.
- Başlıkta bulunmayan kelimelerin seçilmesi önerilmektedir.

### Effect of shearing on some physiological and hormonal parameters in Akkaraman sheep

Keywords: Stress; Fleece; Thermoregulation; Climatic Factors; Homeostasis

### Kaynakça

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