# SİMENTAL IRKI BUZAĞILARDA SÜT EMME DÖNEMİNDE BAŞLANGIÇ RASYONLARINDA FARKLI KABA YEM KAYNAKLARI VE FARKLI MISIR İŞLEME METODLARININ KULLANILMASININ GELİŞİM PERFORMANSI VE RUMEN PARAMETRELERİ ÜZERİNE ETKİLERİ

**S a m e t  Ç E V İ K**
0000-0001-8326-0841
**BURSA ULUDAG UNIVERSITY**
**GRADUATE SCHOOL OF HEALTH SCEINCES**
**ANIMAL NUTRITION AND NUTRITIONAL DISEASESDEPARTMENT**
**MSc/PhD PROGRAM**

**GRADUATION DATE:06.07.2026**

## SUPERVISOR

Doç. Dr. Çağdaş KARA
0000-0003-2515-1211
BURSA ULUDAG UNIVERSITY
GRADUATE SCHOOL OF HEALTH SCIENCES
ANIMAL NUTRITION AND NUTRITIONAL DISEASES
DEPARTMENT
BURSA – TÜRKİYE

## THESIS ABSTRACT

This study investigated the effects of forage (wheat straw and alfalfa hay) and corn grain physical form (ground or whole) in starter diets offered to pre-weaning Simmental calves on growth performance, rumen fermentation, and metabolic parameters. A total of 48 Simmental calves were assigned to four treatment groups according to a 2 × 2 factorial experimental design. In conclusion, forage source and corn grain physical form affected feed intake, feed efficiency, structural growth, and certain rumen fermentation characteristics, but did not affect growth performance.

## APPLICATION AREAS OF THE THESIS RESULTS

The findings of this study may be used to improve pre-weaning calf feeding programs and the formulation of starter diets. The results may contribute to improving feed efficiency and supporting rumen development. Furthermore, this study provides a scientific basis for calf nutrition research and the development of new starter diet formulations.

## ACADEMIC ACTIVITIES

1. Kara, Ç., Çevik, S., Orman, A., Karslıoğlu Kara, N., & Berge, A. C. (2026). Effects of Straw Particle Size and Physical Forms of Corn in Starter Diets on Growth Performance and Rumen Parameters in Holstein Calves During the Pre-Weaning Period. Animals, 16(4), 643. https://doi.org/10.3390/ani16040643
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## KEY WORDS

- ✓ Forage source
- ✓ Corn physical form
- ✓ Growth performance
- ✓ Rumen fermentation
- ✓ Simmental calves

## CONTACT

E-MAIL:
samet.cevik@gmail.com

## THESIS SUPERVISOR

TELEPHONE:
0224 2941361

E-MAIL:
cagdaskara@uludag.edu.tr