



KEY WORDS

- ✓ Energy level
- ✓ Dry matter intake
- ✓ Rumen parameters
- ✓ Blood parameters
- ✓ Milk parameters

CONTACT

E-MAIL:
610848001@ogr.uludag.edu.tr

THESIS SUPERVISOR

TELEPHONE:
224-264-13-61

E-MAIL:
turkmen@uludag.edu.tr



THE EFFECT OF DIFFERENT ENERGY LEVELS OF DIETS ON MILK YIELD AND COMPOSITION AND BLOOD AND RUMEN PARAMETERS IN DAIRY CATTLE IN TRANSITION AND EARLY LACTATION PERIOD

Arda KOVANLIKAYA

ORCID: 0000-0002-9246-7016

BURSA ULUDAG UNIVERSITY

GRADUATE SCHOOL OF HEALTH SCIENCES

**ANIMAL NUTRIENTS AND NUTRITIONAL DISEASES DEPARTMENT
PHD PROGRAM**

GRADUATION DATE:

SUPERVISOR

Prof. DR. İ. İsmet TÜRKMEN

ORCID: 0000-0002-8111-7619

BURSA ULUDAG UNIVERSITY

GRADUATE SCHOOL OF HEALTH SCIENCES

ANIMAL NUTRIENT AND NUTRITIONAL DISEASES

DEPARTMENT

BURSA – TÜRKİYE



THESIS ABSTRACT

In this study, the effects of diets with three different energy levels were investigated on dry matter intake, milk yield, milk composition, body condition score, blood and rumen parameters of dairy cattle in early lactation period on heifers. In the first trial, 36 Holstein dairy cattle were used and in the second trial, 3 rumen cannulated dairy cattle were included in the study in a 3x3 Latin square experimental setup and rumen parameters were examined.

Considering the results of the experiment, dry matter intake, milk yield, milk fat, milk protein, blood urea nitrogen, body condition score losses, rumen pH, % acetic acid and propionic acid amount were affected by energy level, while no difference was observed in the other measured parameters. It has been observed that increasing the energy content of the diet to be applied to heifers to 1.61 NEL (Mcal/kg) positively affects the milk yield.

APPLICATION AREAS OF THE THESIS RESULTS

Today, food production has gained strategic importance. Profitable food production is important for the future of dairy enterprises. Metabolic diseases observed in dairy cattle farms mostly occur in the early lactation period. Our thesis will contribute to the sector in obtaining more milk in a healthy way from dairy cattle in this period.

ACADEMIC ACTIVITIES