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GRADUATE SCHOOL OF HEALTH SCIENCES

ANIMAL NUTRITION AND NUTRITIONAL DISEASES DEPARTMENT

PhD PROGRAM

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### THESIS ABSTRACT

This study was conducted to investigate the effects of using different fruits as fiber sources in dry dog foods on nutrient digestibility, colon volatile fatty acids (VFA) level, fecal quality and palatability of the food. In the research; 18 adult Golden Retriever dogs were used and, 3 groups (each containing 6 dogs) were created. While wheat bran was used as a fiber source in the food of the control group, in the Trial 1 and Trial 2 groups, respectively; 1% dried apple (DA) and 1% dried persimmon (DP) were used.

As a result of classical digestion experiments, in all groups; no statistically significant difference was observed in dry matter digestibility (DMD), organic matter digestibility (OMD), ether extract digestibility (EED), crude fiber digestibility (CFD) and crude protein digestibility (CPD) parameters. No difference was observed between the fecal DM values of the DA and DP groups, and the fecal DM values of the control group were significantly lower than these two groups. While the highest value in terms of stool amounts belonged to the control group, the lowest stool score was also observed in the control group. Total short chain fatty acid (SCFA) values of DA and DP groups at 12, 24 and 48 hours were similar, but higher than the control group. In the research, determined in vitro organic matter digestibility (IVOMD); While it was higher in the DP group than the control group for the 12th hours, the DA and control groups were found to be similar. It was observed that the IVOMS value of the DP group at 24 and 48 hours was higher than the DA and control groups. Dogs preferred the food containing DA and DP more than the control food, and the food containing DA was more preferred by the dogs than the food containing DP.

### APPLICATION AREAS OF THE THESIS RESULTS

Businesses producing cat and dog food

Businesses producing feed additives

### ACADEMIC ACTIVITIES



### KEY WORDS

- ✓ Dog food
- ✓ Fruit fiber
- ✓ Digestibility
- ✓ Palatability
- ✓ Stool score

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