

DETERMINATION OF FAECAL DRY MATTER DIGESTIBILITY IN RABBITS WEANED AT 25 DAYS OF AGE

GÓMEZ-CONDE M.S., CHAMORRO S., NICODEMUS N., VILLAMIDE M.J., GARCÍA J.,
DE BLAS C., CARABAÑO R.

Departamento de Producción Animal, E.T.S. Ingenieros Agrónomos. Universidad
Politécnica, 28040 Madrid, Spain.
rcarabano@pan.etsia.upm.es

ABSTRACT

The aim of this work was to study dry matter digestibility (DMd) in rabbits weaned at 25 d of age to discuss the best procedure to determine nutrient digestibility.

Fifteen New Zealand × Californian rabbits from five litters (3 rabbits/litter) weaned at 25 d of age were fed *ad libitum* a diet containing 20.0% crude protein and 33.5% neutral detergent fiber (on DM basis). Feed intake and faeces excretion were recorded daily from day 25 to day 40 of age and DM digestibility determined.

Litter had a significant effect on DM intake and excretion ($P = 0.032$ and 0.012 , respectively) but only affected slightly DMd ($P = 0.14$). Dry matter intake and DM excretion increased from day 26 to 40 of age by 158 and by 480%, respectively ($P = 0.001$). A broken line regression model was fitted to DMd. It decreased linearly from weaning to day 32 of age (2.17 ± 0.25 percentage units per day), whereas from day 32 to 40 remained constant ($69.4 \pm 0.47\%$).

Accordingly, it would be advisable to begin a digestibility trial not before the day 32 of age, using the first week after weaning as adaptation period. Average standard deviation of DMd decreased 54% with the length of the collection period. Consequently, the number of animals required to detect a difference among means as significant depend on the length of the collection period. For a conventional collection period of four days a difference of 2 percentage units could be detected by using 9 animals/treatment.

Key words: dry matter digestibility, rabbits.