

Feed and energy intake in rabbits and consequences on farm global efficiency

XICCATO G., TROCINO A.

Dipartimento di Scienze Animali, Università di Padova, Italy.

Abstract

The paper describes the variations of voluntary feed intake in growing and reproducing rabbits and analyzes the main factors and feeding strategies affecting this variable that plays a key role on feed efficiency, productive response and body energy balance. Feed energy concentration is the main responsible for the ingestion of dry matter and, as a consequence, of the main nutrients. Growth models are given to estimate the changes in daily weight gain and body composition, showing how only rabbits fed to appetite maximize daily energy intake and feed efficiency in the reproducing and fattening sectors. The main indicator of farm efficiency is global feed conversion ratio (FCR), i.e. the ratio between the quantity of feed consumed in the farm and the total weight of produced rabbits. In growing rabbits, the digestible energy concentration (DE) of the diet explains a great part of the variability of feed intake ($R^2=0.75$) and FCR ($R^2=0.74$); increasing 1 MJ DE/kg diet decreases feed intake by 12 g/d and FCR by 0.29 points; FCR impairs with age from weaning to slaughter with a trend well described ($R^2=0.99$) by a cubic equation. The paper considers other important factors affecting global farm conversion ratio, and also provides estimations of FCR according to doe productivity, mortality rate and market weight.

Key words: Feed intake, energy intake, feed conversion, farm global efficiency

Corresponding author: Gerolamo Xiccato

Email: gerolamo.xiccato@unipd.it

Published on: The 6th International Conference on Rabbit Production in Hot Climate, Assiut 1-4 February 2010, Egypt, 1 - 18

Available on web (free access): <http://www.asic-wrsa.it/documenti/XiccatoAssiut2010.pdf>

Type of paper: Review

Sector: Nutrition