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Facultad de Medicina Veterinaria y Zootecnia, Asociación Científica Mundial de Cunicultura – Rama Americana
Secretaría de Desarrollo Agropecuario del Gobierno del Estado de México, Secretaría de Agricultura, Ganadería, Desarrollo Rural,
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MEAT QUALITY OF RABBITS FED FEATHER MEAL

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ABSTRACT

The aim of this work was to evaluate the effect of an alternative protein source (feather meal instead of meat meal) and the inclusion levels (170 and 140 g CP) on meat quality traits in rabbits. The trial was conducted in the Faculty of Agricultural and Forestry Sciences, National University of La Plata, Argentina. Forty New Zealand x Californian rabbits, weaned at 28 days of age, were used. Animals were randomly distributed into individual cages. The experimental design was a 2x2 factorial: two sources of animal protein (MM = meat meal as the control diet and FM = hydrolyzed feather meal) and two levels of crude protein (17% and 14% as 'control' and alternative lower protein requirement in the finishing period). All diets had equal energy content (DE= 2,500kcal/kg). Food was supplied *ad-libitum*. At 75 days of age, the rabbits were slaughtered, following the standard procedures of rabbit slaughter and carcass dissection by Blasco and Ouhayoun (1996); the weight of the hot carcass (30 'post-mortem) was determined. On the longissimus muscle of refrigerated carcasses (24h post-slaughter, 4±1° C), the pH value (pH-meter Hanna, Ingold 406 M3) and Colour (L*, a*, b*; CR-300 Minolta Chromameter) were measured; the Chroma was calculated as $C=\sqrt{(a^*)^2+(b^*)^2}$. Left Longissimus muscle weight (%cold carcass), cooking losses (water bath, 50' at 70°C), hardness (Warner-Bratzler on Instron 1114), were determined. Collected data were analyzed by ANOVA using the GLM procedure of SAS (2004) for a factorial model (sources and levels of protein and their interaction).

Mean differences between treatments were compared using the Tukey test (P<0.05). The protein level of diet significantly influenced slaughter weight, % hot carcass, parameters a*, b* and C*, and cooking losses. The protein source of diet had less influenced and only affected the



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meat/bone ratio. In conclusion, the protein level was significant in the development of the rabbits while the inclusion of hydrolyzed feather meal did not affect the meat performance traits. Therefore the inclusion of feather meal in rabbit finishing diets is conditioned by the cost and availability of this by-product.

Key words: rabbits, protein source, protein level, meat quality



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