

Effect of feeding biological treated rice straw on carcass characteristics and rabbits meat composition

R.I. El Kady*, A.A. Abedo, A.A. El Shahat and A.A.A. Morad

Animal Production Department, Agricultural and Biological Research Division,
National Research Centre, Dokki, Giza, Egypt.

Abstract : The aim of this work was study the effect of feeding biological treated rice straw with *Pleurotus ostreatus* at different levels on carcass characteristics and meat composition of rabbits. Dried treated rice straw was used to formulate the experimental pelleted diets by substituting of berseem hay with treated rice straw with medium only (without *Pleurotus ostreatus*) and biological treated rice straw with *Pleurotus ostreatus* at different levels, all diets were formulated to be iso-nitrogenous and iso-caloric, and to meet the nutrients requirements for growing rabbits. A number of 42 weaned New-Zealand white rabbits about 6 weeks of age and weighted 500 g in average were randomly divided into 7 groups, 6 rabbits in each. The experimental groups were fed as following; the first group fed control diet (0% rice straw) and the other six groups were fed on diets containing either rice straw without *Pleurotus ostreatus* (medium only) or biological treated rice straw with *Pleurotus ostreatus* at 33, 66 and 100% as replacing of berseem hay (11, 22 and 33% of total diet). The experiment lasted for 91 days, at the end of the experimental period three rabbits from each group were slaughtered to evaluate carcass characteristics and meat composition. The results showed that either treatments or levels had no significant effect on EBW, CW1, CW2, DP1, DP2, DP3, carcass cuts. Also no significant effect on total external offals included (blood, fun, tail and ears), except legs which significantly differed ($P \leq 0.05$) between treatments levels. No significant effect on total edible offals between treatments, however, liver and heart values were significantly ($P \leq 0.05$) higher for rabbits fed with *P.ostreatus* than those fed without *P.ostreatus*. Also, total edible offals, liver and heart values were ($P \leq 0.05$) increased with increasing level of rice straw and the highest value was recorded with level of 100%. The results of interaction showed that dietary treatments and levels had no significant effect ($P \geq 0.05$) on EBW, CW1 and CW2. Also, no significant effect of interaction between treatments and levels on DP1, DP2 and DP3 for without *P.ostreatus* and with *P.ostreatus* groups, except with level of 66% with *P.ostreatus* and 100% without *P.ostreatus*. Middle part of carcass, liver and total edible offals were ($P \leq 0.05$) higher with 33% with *P.ostreatus*. External offals were no significant differ, except with level of 66% without *P.ostreatus*. The results showed that there are no significant differences among different levels on chemical composition of carcass meat. Concerning of the DM and ash content, there were no significant differences between treatments. While, incorporating of biological treated rice straw with *P.ostreatus* significantly ($P \leq 0.05$) decreased protein content (60.30%) in carcass compared to those fed without *P.ostreatus* (64.69%), in contrast, EE was significant higher (37.06%) for groups fed with *P.ostreatus* than (32.72%) for those fed without *P.ostreatus*. Effect of interaction between treatments and levels on DM and ash content were no significant for all experimental groups. While, rabbits fed with *P.ostreatus* at 66% had ($P \leq 0.05$) lower CP content than those fed without *P.ostreatus*. But, EE content was ($P \leq 0.05$) increased with 66% biological treated rice straw with *P.ostreatus* compared with those fed without *P.ostreatus*.

Key words: Rice straw, biological treatment, *Pleurotus ostreatus*, carcass characteristics and rabbits.