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## **Use of waste fats obtained from poultry slaughterhouse in Japanese quail diets**

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This study was carried out to survey the effects of sources and different levels of fats on the performance of Japanese quail. In starter period, 720 commercial male and female chicks, fed with 6 diets and in 6 replicates chicks per each replicates (20 chicks per each replicate) during 21 days. At the early of growth period, the sex of chicks was determined and 360 chicks (180 male and 180 female) were reared. The experimental design applied was a completely randomized design with 6 treatments, 6 replicates and 10 chicks per each replicate. Experimental diets included: 1)5% sunflower oil ,2)2.5% sunflower oil, 3) 5% poultry fat, 4)2.5% poultry fat, 5)2.5% sunflower oil + 2.5% poultry fat,6) 1.25% sunflower oil + 1.25% poultry fat. In the starter period, there were no significant differences in feed intake, weight gain and feed conversion ratio among treated groups. Also there were no significant differences during the growth period but quail sex significantly affected feed intake, weight gain and feed conversion ratio ( $P<0.01$ ).Female quails had higher feed intake and weight gain and better feed conversion ratio than male quails. Slaughter weight (weight in 42 days of age) in female quails was higher than that of male quails ( $P<0.01$ ), but fat sources and levels did not have any effect on this traits. In an overall conclusion it seems that, utilization of cheaper and offal fats such as poultry fat offers economic diets without any reduction in the performance of quails.

**Keywords:** Japanese quail, Poultry fat, Sunflower oil, Economic diets, Weight gain

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