

ABSTRACT

EFFECT OF PELLETTED OLIVE CAKE ON MILK YIELD AND MILK COMPOSITION OF DAIRY COW

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Studies conducted with olive cake, an Agro-industrial by-product, generally addressed to small ruminants. Therefore, there is not sufficient data to use olive cake on dairy cow nutrition. This experiment was conducted to investigate the effects of olive cake on dry matter intake, milk production and milk composition of high yielding Holstein dairy cow. Olive cake de-stoned by passing the 3 mm sieve and then pelleted. De-stoned olive cake (DOC) was used in 13% in total mixed ration. The ration containing whole cotton seed served as control (C) group. A total of 12 multiparous, in early lactation, high yielding dairy cow used as an animal material in this experiment. Twelve dairy cows were equally assigned one of C or DOC group. A total of 12 cows were housed in individual pens. In a 22-d experiment, dairy cows were adapted to their rations for 12 day and data collection lasted for 10 day. At the end of 10-d experimental period, cows fed with the ration containing DOC consumed ($P<0.01$) more dry matter compared to C group (32.8 and 28.1 kg/day, respectively). Milk yield (C 47.5; DOC 50.9 kg/d) and 3.5% corrected milk yield (FCM, C 45.7; DOC 44.5 kg/day) were not affected ($P>0.05$) by the dietary treatment. Control-fed cows tended ($P=0.08$) to have higher fat content, however, milk fat production (kg/day) was not differ ($P>0.05$) between groups. Feeding DOC decreased ($P<0.05$) feed efficiency when expressed either milk or 3.5% FCM per dry matter intake. It was concluded that olive cake can successfully use in high yielding dairy cow nutrition after effectively de-stoning process.

Key words: De-stoned olive cake, dairy cow, intake, milk yield, milk composition