A trial was conducted to find out the influence of palm oil, rice bran oil and tallow on broiler production. The metabolizable energy content of palm oil, rice bran oil and tallow are 6570, 7420 and 7400 kcal/kg respectively. Palm oil was included at 1 and 2% level in broiler starter and at 2 and 4% level in finisher rations, while rice bran oil and tallow were incorporated at 2% level each in broiler starter and at 4% in broiler finisher ration. All the experimental diets were isocaloric and isonitrogenous. The feed consumption of broiler starter (1.06, 1.08, 1.1, 1.09 vs 1.02kg) as well as of broiler finisher (2.39, 2.38, 2.41, 2.43 vs 2.21g) were significantly higher in all the treatment groups than the control. But, no significant difference in feed conversion efficiency was observed among various treatments in both starter and finisher phase. The body weight gain in starter phase was significantly high in rice bran oil fed group (576 vs 541g) than the control group and 1% palm oil fed group (576 vs 537g), but were comparable with 2% palm oil and tallow fed group. No significant difference was observed among the treatments in body weight gain in finisher phase. The carcass characteristics (in percentage) viz., dressed weight, abdominal fat, liver weight and skin weight among the various treatments were numerically higher than the control group but the values were non-significant. It was concluded that palm oil, rice bran oil and tallow could be used up to 2% and 4% level in broiler starter and broiler finisher ration respectively.