A 9-wk study was conducted to evaluate the effect of dietary protein and energy on growth performance of juvenile permit, Trachinotus falcatus, growing from approximately 30 to 150g. Nine experimental diets were formulated to contain three levels of crude protein (400, 450, and 500g/kg dry matter [DM]); and three levels of crude lipid (100, 200, and 300g/kg DM) in a 3 x 3 factorial design. Growth rate and feed efficiency were significantly improved with increasing dietary protein levels from 400 to 500g/kg and with dietary lipid levels from 100 to 200g/kg. Fish body protein content was positively correlated with dietary ratio of digestible protein (DP) to digestible energy (DE) ($P<0.01$, $R^2=0.83$), while body lipid was negatively correlated with dietary DP/DE ($R^2=0.55$, $P<0.05$) but positively correlated with dietary DE levels ($R^2=0.66$, $P<0.01$).

Results showed a protein-sparing effect, as protein retention was significantly increased by increasing dietary lipid level. In conclusion, the diet containing DP of 392.7g/kg and DE of 18.8 MJ/kg (DM), corresponding to a DP/DE of 20.9g/MJ, is suggested as an optimal feed for growth and feed efficiency in juvenile permit.