The effect of pelleting or extrusion of a fattening diet fed to rainbow trout (Oncorhynchus mykiss) from 60±5 g up to 270±10 g live weight on productive performance, carcass yield, hepatosomatic index, chemical composition of the edible part (fillet) and economic advantage of both diets was studied. The productive performance was evaluated by the live weight, feed consumption (FC), feed efficiency (FE), specific growth rate and total mortality. The fish fed the extruded diet presented lower FC and a better FE than those fed the pelleted diet (p<0.05). The other parameters were rather similar between the treatments assayed. The carcass yield, hepatosomatic index and chemical composition were not affected (p>0.05) by feeding extruded or pelleted diet. The extruded diet presented a lower cost for each kg of live weight or net kg (live weight corrected by carcass yield) of rainbow trout produced when the FE and the cost of diet were included, with no consideration of the cost of the pr