

Poonmanee Kanjanaworakul 2006: Effect of White Kwao Keur (*Pueraria mirifica*) on Growth Performance and Feed Utilization in Hybrid Catfish (*Clarias macrocephalus* x *Clarias gariepinus*). Master of Science (Aquaculture), Major Field: Aquaculture, Department of Aquaculture. Thesis Advisor: Associate Professor Prathak Tabthipwon, Doctorat de 3 e cycle. 101 pages. ISBN 974-16-1613-9

The effect of white kwao keur (*Pueraria mirifica*) on growth performance, feed utilization and some blood constituents in hybrid catfish (*Clarias macrocephalus* x *Clarias gariepinus*) was investigated on 1 month old fish with the average weight of 1.06 ± 0.01 g/fish. The isocaloric diets of 2,800 kcal/kg feed digestible energy with seven levels of *Pueraria mirifica* (0, 200, 400, 800, 1,200, 2,400 and 3,600 mg/kg) were studied. The first period of experiment (day 1 – 30) fish were fed with 32 % crude protein diet and fed with 28 % crude protein diet in second period (day 31 – 60). The result showed that in first period, growth performance and survival rate was not significantly different ($p>0.05$) but hybrid catfish fed with diet supplemental *Pueraria mirifica* 400 to 1,200 mg/kg feed showed the better feed efficiency, feed conversion, protein efficiency and net protein utilization ($p<0.05$). Red blood cell, hematocrit, hemoglobin and hepatosomatic index (HSI) of groups fed with 800 – 2,400 mg/kg. kwao keur were higher than the others ($p<0.05$). The result from second period showed that growth performance, protein efficiency and net protein utilization of fish fed with *Pueraria mirifica* 800 mg/kg feed were highest ($p<0.05$) but no difference on feed conversion and cost for fish product ($p>0.05$). High levels of white kwao keur in feed show effect on increasing of hematological values ($p<0.05$) but no difference on hepatosomatic index of fish ($p>0.05$). Protein digestibility of test diet were not significantly difference ($p>0.05$) among the different level of *Pueraria mirifica* in the diet. The results could be reveal that to supplement *Pueraria mirifica* 400 to 1,200 mg/kg feed in hybrid catfish diets demonstrated the better growth performance and feed utilization.

Student's signature

Thesis Advisor's signature