

## Traditional Herbs Used in Aquaculture

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The present study: “**Studies on the effect of ginger, garlic and fenugreek powder supplementation diets on the growth and survival of pacific white shrimp, *Litopenaeus vannamei***” was conducted in the Wet Laboratory of the Department of Aquaculture, College of Fishery Science, Sri Venkateswara Veterinary University, Muthukur. *L.vannamei* shrimp was fed with three different herbal powder of ginger, garlic and fenugreek of varying levels of 1%, 2.5%, 5%, 2%, 4%, 6%, 0.5%, 1% and 1.5% of concentrations respectively to assess the optimal growth promoting potential and survival rate. The feeding trial was continued for 63 days with triplicates in each treatment. The growth parameters (ABW, weight gain, SGR), feed efficiency parameters (FCR) and survival rate were significantly ( $P < 0.01$ ) higher in treatment diets fed vannamei compared to control diet fed vannamei. Highest weight gain was observed in GP 4% supplemented diet fed vannamei compared to all other garlic supplemented diets. Growth measured as specific growth rate was improved with the herbal supplementation in the basal diets. The elevation in the SGR is in the order of garlic > ginger > fenugreek > control. It was found that GP 4% supplementation in the diet was optimal level of inclusion in garlic supplementation for vannamei culture. The diet supplemented with GP 4% fed vannamei was showed best FCR with higher significance ( $P < 0.01$ ) compared to other treatments. Survival rate of the vannamei fed diets containing garlic powder were significantly ( $P < 0.01$ ) higher in GP 6% (91.6%) compared to control (58%). Similar trend of elevated survival rates was noticed in vannamei at ZP 2.5 (91.3%) and FP 1.5% (83.3%) compared to control. The growth promoting ability of herbs with varying concentrations higher in GP 4% followed by ZP 2.5% and FP 1% supplemented in vannamei diets.

**Note:**

GP 2%: Per Kg feed contain 20g of garlic powder  
GP 4%: Per Kg feed contain 40g of garlic powder  
GP 6%: Per Kg feed contain 60g of garlic powder  
ZP 1%: Per Kg feed contain 10g of ginger powder  
ZP 2.5%: Per Kg feed contain 25g of ginger powder

ZP 5%: Per Kg feed contain 50g of ginger powder  
FP 0.5%: Per Kg feed contain 5g of fenugreek powder  
FP 1%: Per Kg feed contain 10g of fenugreek powder  
FP 1.5%: Per Kg feed contain 15g of fenugreek powder

