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Evaluation of health status on complete replacement of animal protein with plant protein (33 %: replacing fish trash) of *L. leucocephala* pod seed

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The laboratory acclimatized *Clarias gariepinus* (80 ± 10 gms) were used in the study. The fish were divided into 7 groups, each containing 10 fish. A reconstitute feed containing 33 % powder of *Leucaena leucocephala* seed replacing the fish trash in artificial feed was prepared. Groups were divided accordingly to i) Negative control A (fed on artificial feed; injected with PBS), ii) Negative control B (fed on reconstitute feed (33 %); injected with PBS) iii) Positive control (fed on reconstitute feed (33 %); injected with BSA) iv) Experimental group 1 (fed on reconstitute feed (33 %); injected with *V. harveyi*) v) Experimental group 2 (fed on artificial feed; injected with *V. harveyi*) vi) Experimental group 3 (fed on reconstitute feed (33 %); injected with *Pseudomonas aeruginosa*) vii) Experimental group 4 (fed on artificial feed; injected with BSA). The fish were acclimatized to their respective feeds 15 days prior to the first injection. The fish were challenged on weekly intervals. The change in their body weight was observed. The liver function tests (SGOT, SGPT) were also monitored. The total serum glucose, lysozyme and ALP levels were measured to determine the effect of artificial feed and reconstituted feed on fish. The phagocytic index, percentage phagocytosis, Nitric oxide, SOD and LPO levels were measured on from the tissue obtained from sacrificed fish. The level of total fish immunoglobulin and immunoglobulin produce against antigen were also measured following indirect and sandwich ELISA respectively.

Biography

Vipin Kumar Verma has recently submitted his Ph.D. thesis entitled "Immuno-stimulatory effects of supplemented feed against *Aeromonas hydrophila* and development of ELISA to evaluate health status of the African catfish, *Clarias gariepinus* and the murrel, *Channa punctata*". He has Seven published paper in peer reviewed journals. He is working on the immunological aspects of fish including their protein purifications and effects of various phytochemicals on growth and immune system of fish.

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