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Plate 1: A. Photograph of fish *Catla catla*
B. Haul of *Catla catla*
Plate 2: Flow Diagram to show steps for Well Diffusion Assay.

1. Preparation of well for Well Agar Diffusion Assay
2. Plates were incubated at 37°C for 24 to 48 hrs.
3. Zones of inhibition were measured in mm/cm, using a ruler on the underside of the plate.

- Aeromonas hydrophila pathogenic bacteria
- Bacillus coagulans probiotic bacteria
- Agar Plate inoculated with Aeromonas hydrophila (pathogenic bacteria)
- Agar Plate with inoculated probiotic bacteria in the well
Plate 3: Photographs of Duckweed (*Lemna minor*)
Plate 4: Photographs of Prepared Diets as Pellets
Plate 5: A View of Experimental Set Up
Plate 6: Antagonistic activity shown by probiotic bacterium *B. coagulans* for pathogenic *Aeromonas hydrophila*
Plate 7: Growth Performances of *Catla catla* in different dietary treatments containing varying proportion of *B. coagulans* (DC=control, D1=1000 cells g⁻¹, D2=2000 cells g⁻¹, D3=3000 cells g⁻¹ and D4=5000 cells g⁻¹ of diet)
Plate 8: (A) Erythrocytes (400X), (B) Thrombocytes (a), Basophils (b), and Lymphocytes (c), (C) Macrophages (a) and Early phagocytic cell (b), of Catla catla in D3 treatment after 90 days of feeding trial (1000X)
Plate 9: (A) Early Phagocytic cell, (B) Phagocytic cells, (C) Mature Phagocytic cells, of *Catla catla* in D3 treatment after 90 days of feeding trial (1000X)
Plate 10: Growth Performances of *Catla catla* fed on diet containing duckweed at varying inclusion levels (TC = 0, T1 = 66.5 g Kg⁻¹, T2 = 133 g Kg⁻¹, T3 = 199.5 g Kg⁻¹ and T4 = 266 g Kg⁻¹ of diet)
Plate 11: Growth Performances of *Catla catla* fed on diets with duckweed and varying proportion of *Bacillus coagulans* (CC=control, C1=1000 cells g⁻¹, C2=3000 cells g⁻¹ and C3=5000 cells g⁻¹ of diet)
Plate 12: (A) Erythrocytes, (B) Monocyte, (a) and Eosinophilic granulocyte (b), (C) Lymphocyte (a), Thrombocytes (b), and Phagocytic cell (c), of Caila catla in C2 treatment after 90 days of feeding trial (1000X)
Plate 13: (A) Early Phagocytic cells (B) Phagocytic cells (C) Mature Phagocytic cells of *Catla catla* in C2 treatment after 90 days of feeding trial (1000X).