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Effects of dietary yeast culture on growth performance, immune response and disease resistance of gibel carp (*Carassius auratus gibelio* CAS III)

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1 **Effects of dietary yeast culture on growth performance, immune response and**  
 2 **disease resistance of gibel carp (*Carassius auratus gibelio* CAS □ )**

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 13 **Running title:** The immune response of gibel carp to yeast culture

14 **Keywords:** yeast culture, *Carassius auratus gibelio*, growth, immunity, *Aeromonas*  
 15 *hydrophila*

16  
 17 **Abstract**

18 A 50-day feeding trial was carried out to evaluate the partial replacement of fishmeal  
 19 by yeast culture (YC) on growth performance, immune response and resistance  
 20 against *Aeromonas hydrophila* in gibel carp CAS □ (*Carassius auratus gibelio*). Four  
 21 isonitrogenous and isoenergetic practical diets including a basal diet (the control diet  
 22 containing 10% fish meal, D0) and three yeast culture diets (substituting 20%, 40%,  
 23 60% of the fishmeal in the basal diet, D20, D40 and D60, respectively) were  
 24 formulated. Each diet was randomly allocated to quadruplicate fish groups (average

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