

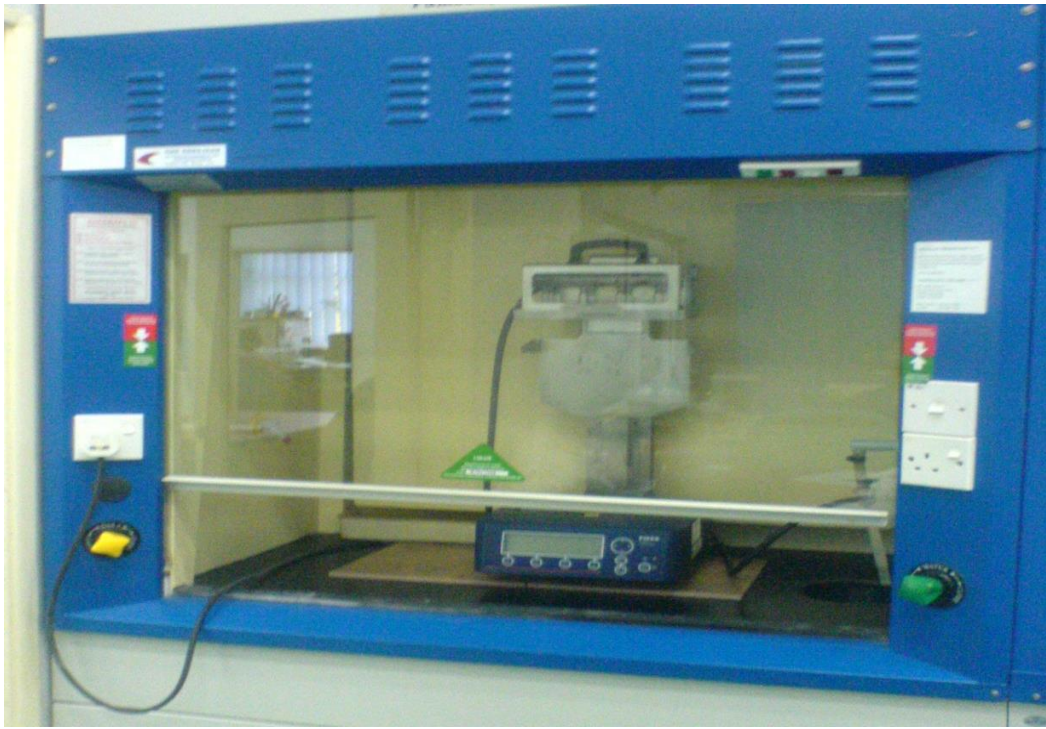
LABORATORY EQUIPMENTS USED IN CHEMICAL ANALYSIS



Appendix 1 (a); Figure 1: High Performance Liquid Chromatograph (HPLC)



Appendix 1 (a); Figure 2: FOSS Tecator Digester Auto



Appendix 1 (a); Figure 3: FOSS Kjelttec 2200



Appendix 1 (a); Figure 4: Digitrate 0.1M hydrochloric acid titration



Appendix 1 (a); Figure 5: FOSS Soxtec 2055



Appendix 1 (a); Figure 6: Naberthem muffle furnace



Appendix 1(a); Figure 7: Carbolite Oven

EQUIPMENTS USED AT AQUARIUM LABORATORY



Appendix 1 (a); Figure 8: Electronic top pan balance (AND EW-I Series)



Appendix 1 (a); Figure 9: Steam conditioned Pellet Mill (KCM, Y132M-4)



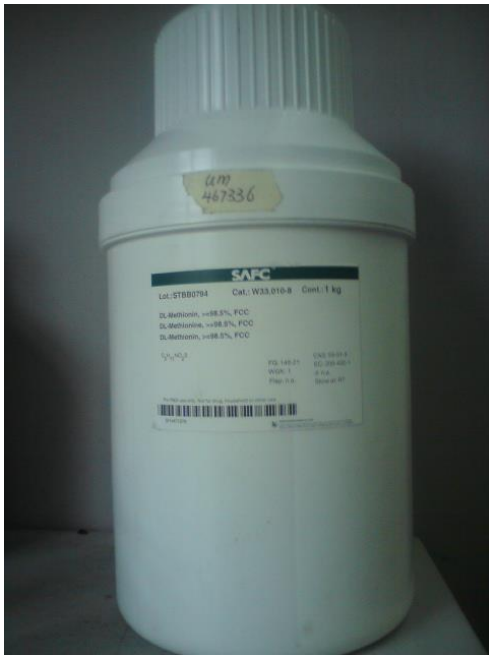
Appendix 1 (a): Figure 10: Prepared diet ready to be fed by fish



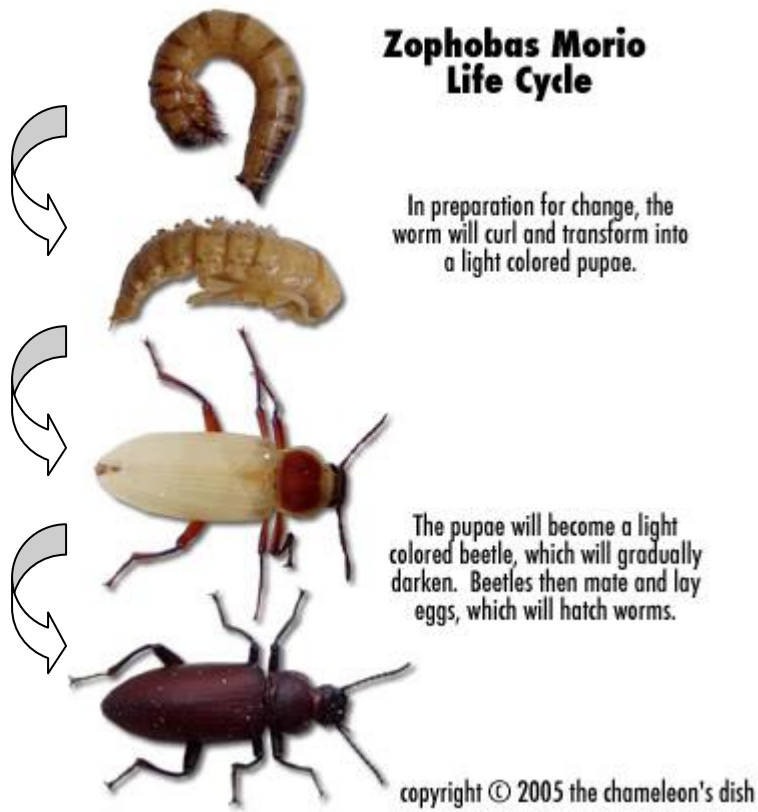
Appendix 1 (a): Figure 11: Meshed up fish fillet before proximate analysis



Appendix 1 (a): Figure 12: Experimental aquaria for growth trial



Appendix 1 (a); Figure 13: 1 kg DL-Methionine, SAFC



Appendix 2 (a); Figure 1: Life cycle of super worm (*Zophobas morio*)

Appendix 3 (a): Publication and Presentation from the Research

SELECTED ACADEMIC JOURNAL

Proceeding

M.D. Abd Rahman Jabir, S.A. Razak, M.Y. Hanan. (2010). Partial replacement of fish meal with super worm meal (*Zophobas morio*) in Nile Tilapia (*Oreochromis niloticus* L.) diets. Proceedings of 4th International Conference on Animal Nutrition. Pg 397.

Article papers

M.D. Abd Rahman Jabir, Razak, S.A., Vikineswary, S. 2012. Nutritive potential and nutrient utilization of super worm (*Zophobas morio*) meal in the diet of Nile Tilapia (*Oreochromis niloticus*) juvenile. African Journal of Biotechnology, 24: 6592 – 6598. (ISI-Cited Publication)

M.D. Abd Rahman Jabir, Razak, S.A., Vikineswary, S. 2012. Chemical composition and nutrient digestibility of super worm meal in juvenile Nile tilapia. Pakistan Veterinary Journal, 32 (4): 489-493. (ISI-Cited Publication)

M.D. Abd Rahman Jabir, Razak, S.A., Vikineswary, S. 2012. Effect of Mushroom Supplementation as a Prebiotic Compound in Super Worm Based Diet on Growth Performance of Red Tilapia Fingerlings. Sains Malaysiana, 41(10): 1197 - 1203. (ISI-Cited Publication)

PRESENTATION

Oral

Effect of fish meal replacement by super worm meal (*Zophobas morio*) on growth performance and nutrient utilization of Nile Tilapia. The 15th Biological Sciences Graduate Congress “Bridging Ideas, Building Talents”, 15th Dec 2010 to 16th Dec 2010, Institute of Biological Sciences, Faculty of Science, University of Malaya, Kuala Lumpur, Malaysia. (International)

Poster

Effect of amino acid supplementation in super worm based diets on growth performances and feed utilization of juvenile Nile tilapia. International Fisheries Symposium, 3rd Oct 2011 to 5th Oct 2011, University of Malaysia Terengganu, Permai Hotel, Kuala Terengganu (International)

AWARDS AND RECOGNITION

Bronze Medal, BioInno Award, BioMalaysia, 2010, (International)