



Haematological responses of pacu *Piaractus mesopotamicus* fed diets with co-dried acid fish silage

Fabiola da Silva Santana*1, Maria Lidia Carra², Genofea Amália Dal'Bó³, Fernanda Garcia Sampaio⁴, Marcos Eliseu Losekann⁴, Ricardo Borghesi⁵, Lia Ferraz de Arruda⁶, Marília Oetterer⁷

*1Graduanda em Medicina Veterinária; Faculdade de Jaguariúna, Jaguariúna - SP; 2Graduanda em Engenharia Ambiental; Faculdade de Jaguariúna, Jaguariúna - SP; 3Pós Graduanda em Patologia Clínica Veterinária; Instituto Brasileiro de Veterinária; 4Pesquisadores, Empresa Brasileira de Pesquisa Agropecuária - Embrapa Meio Ambiente; Rod SP 340, km 127,5 -13820-000 – Jaguariúna – SP - fernanda.sampaio@embrapa.br; 5Pesquisador, Empresa Brasileira de Pesquisa Agropecuária – Embrapa Pantanal, Corumbá, MS; 6Doutora em Ciências, Centro de Energia Nuclear na Agricultura da Universidade de São Paulo (CENA - USP), Piracicaba, SP, Brasil; 7Professora do Departamento de Agroindústria, Alimentos e Nutrição da USP/ESALQ, Piracicaba, SP, Brasil

Fish silage is a method to utilize and to preserve residues from fish culture, market and processing that have high biological value and can be used in animal feeding. This study evaluated the effect of increased levels of co-dried acid silage in experimental diets on the erythrogram and haematimetrics index of pacu (*Piaractus mesopotamicus*). A total of 120 juveniles with average weight (61.92 g) and a total length (12.09 cm) were distributed in 15 experimental aquaria (300 L) in a closed recirculation system with constant temperature and aeration. The treatments correspond to 0% control (G0), 25% (G25), 50% (G50), 75% (G75) and 100% (G100) of fish silage with three repetitions. The diets were formulated to be isoproteic (26% CP) and isoenergetic (3200 Kcal.kg⁻¹ DE) and were administered twice daily *ad libitum*. Dissolved oxygen and temperature were measured daily. At the end of the experimental period (60 days) fish were anesthetized with benzocaine and blood was collected from caudal puncture with heparinized syringe. Data were submitted to ANOVA and Tukey's test (P<0.05) through SAS software. No mortality was recorded in different experimental groups. There was observed no significant difference for haemoglobin (Hb), haematocrit (Ht), Mean Corpuscular Volume (MCV) and Mean Corpuscular Haemoglobin Concentration (MCHC). On the other hand Erythrocyte (Ery) showed difference (P<0.05) between G0 and G75. All experimental groups showed white blood cell (WBC) in a similar range. The co-dried acid fish silage does not promote deleterious changes in haematological parameters of pacu juveniles and can be used as alternative protein source.

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