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Performance characteristics of Nile tilapia (*Oreochromis niloticus*) fed diet containing selected antioxidants following ammonia stressIsagani P Angeles Jr.¹, Anna Marie O Dalere¹ and Yew-Hu Chien²¹Isabela State University, Philippines²National Taiwan Ocean University, Taiwan

The study evaluated the growth, haematology, glucose and resistance to ammonia stress of Nile tilapia (*Oreochromis niloticus*) fed diets supplemented with different antioxidants. The fish were fed with diet containing 80 mg kg⁻¹ astaxanthin (AX80), 50 g kg⁻¹ malunggay *Moringa oleifera* (MO50) and 5 g kg⁻¹ nutrafito plus (NP5) or basal diet (C) for 42 d. Weight sampling was conducted every 14 d while survival was monitored daily. Blood was collected to determine the haematological parameters and blood glucose level of fish before and after ammonia stress test. Wf, WG and SGR of NP5-fish were significantly higher than C-fish but comparable to AX80- and MO50-fish. However, other parameters such as PER and FCR were not significantly different among all treatments. There were significant results in some haematological parameters, glucose level and survival before and after ammonia stress. Before ammonia stress, RBC of NP5-fish was significantly higher among treatments while HCT of NP5-fish was significantly higher than MO50-fish. After ammonia stress, HGB of AX80-fish was significantly higher than C-fish but comparable to MO50- and NP5-fish. On the other hand, RBC of NP5-fish was significantly higher than MO50- and C-fish. Moreover, HCT of NP5-fish was significantly higher than C-fish. Glucose level of NP5 was the lowest among treatments. In addition, AX80- and NP5-fish showed significantly higher survival than the C-fish. These results indicated that fish fed diet supplemented with nutrafito plus improved growth performance, stabilize some haematological parameters and glucose level and improved survival of *O. niloticus* exposed to ammonia stress.

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