DEVELOPMENT OF A SHRIMP GROW OUT FEED WITH LOCALLY AVAILABLE INGREDIENTS AND EVALUATION OF PRODUCTION PERFORMANCE OF THE SHRIMP, **Penaeus monodon** UNDER THE DEVELOPED FEED.

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It is important to develop shrimp feed formulation that are appropriate to the needs and prevailing shrimp culture practices in Sri Lanka. During the present study a shrimp feed was formulated replacing costly imported fish meal with locally processed fish silage and shrimp head meal and it was compared with a commercially available imported shrimp feed. The crude protein percentage of the test diet was 38 ± 0.57 while that of the commercial feed was 40 ± 0.82 which were not significantly different from each other ($P > 0.05$). The protein level of the test diet, which is the most important nutritional factor of a shrimp feed, was suitable for semi-intensive grow out systems of the shrimp, Penaeus monodon while other nutrients were also available in required ranges.

Growth performances evaluated by mean body weight, specific growth rate and weight gain of P. monodon fed with the test diet were not significantly different from the respective values recorded for the shrimp fed with the commercial feed. Percentage survival, food conversion ratio and the yield at the end of 100 days production cycle recorded for the shrimp fed with the test diet and the shrimp fed with the commercial feed were $78\% \pm 1.57$, $80\% \pm 1.25$; 1.85 ± 0.25, 1.6 ± 0.87; 1803 ± 0.5 kg/ha, 1944 ± 1.23 kg/ha, respectively, which were not significantly different from respective values ($P > 0.05$). The feed formulated during this study could be improved further by employing cooker extrusion method in pelletizing and could be recommended for Sri Lankan semi-intensive shrimp grow out systems.