

## The use of local feed ingredients in the culture of freshwater prawn *Macrobrachium rosenbergii* in Fiji

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The change from traditional subsistence to semi-intensive or intensive farming is leading to an increase in the demand for aquaculture feeds. Research was carried out in two phases. Phase 1 included two experiments with local ingredients for juveniles (*Macrobrachium rosenbergii*) in tanks in the laboratory. In Phase 2, experiments were carried in ponds using local ingredients and commercial feeds on PL. In experiment 1 and 2, two sets of six different diets (12 diets) were made from local ingredients (fish meal, meat fish meal, meat bone meal and mill mix, copra meal, wheat meal, pea meal and crest tilapia pellet) were used for a period of three and four weeks for experiment 1 and experiment 2. No significant differences ( $P>0.05$ ) were observed in both the experiments. Performances varied with different diets. In experiment 2, better growth rate ( $7.04 \pm 2.96$  gm), specific growth rate ( $2.38 \pm 0.53\%/day$ ) and increase in length ( $10.25 \pm 2.47$ mm) was observed for diet made from crest tilapia while best survival rate ( $79.16 \pm 8.33\%$ ) was found in diet made from copra meal. In Phase 2, two diets (fish meal and wheat = diet 1 and meat bone meal, mill mix and copra = diet 2) from local ingredients and two commercial diets (Crest Tilapia Feed and Pacific Prawn Feed) were tested for pos larvae in ponds for 124 days. Although no significant differences ( $P>0.05$ ) were observed, better growth rate ( $9.28 \pm 0.42$  gm) and specific growth rate ( $2.25 \pm 0.01\%/day$ ) were found for diet 1 while best survival rate ( $88.84 \pm 0.48\%$ ) was observed for diet 2 in comparison to commercial diets. Local diets were cheaper compared to commercial diets. The results concluded that local diets could be used for the growth of juveniles and PL for the culture of *Macrobrachium rosenbergii* in ponds.

### Biography

Temalesi Koroi has completed her Masters at the age of 26 years from University of the South Pacific, Fiji. She was employed by the Fiji Department of Fisheries in 2008 to 2009 as Fisheries Assistant. In 2010 she was awarded an Australian Centre for International Agriculture Research (ACIAR) Scholarship to complete her Masters Research.

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