Production performance of freshwater prawn (Macrobrachium rosenbergii) reared at two stocking densities and fed only wet brewers grains. KALVIN RUCKER, SHAWN COYLE, and JAMES TIDWELL, Kentucky State University, College of Agriculture, Communities and the Environment, Frankfort, KY 40601.

Successful freshwater prawn (Macrobrachium rosenbergii) culture is based upon producing high-value outputs (prawn) from low-cost inputs (feed). Sinking catfish feed have traditionally been the recommended feed. The use of locally available by-products has the potential to reduce production costs. Wet brewers grains (WBG) are the solid residue left after the processing of cereal grains to produce beer. An increase in the number of small craft breweries has resulted in a surplus in the availability of WBG, which are typically free. A 97-day feeding trial was conducted to determine the potential for WBG to be used as feed for pond production of prawn. Juvenile prawn averaging 0.5±0.01 g were hand-counted into triplicate 0.04-ha earthen ponds at densities of 20,000 and 40,000/ha and fed only WBG based on a feed chart. Feed allocations were adjusted based on protein and moisture content. At harvest, there was no significant difference (P > 0.05) in survival between the two treatments, which averaged 97% overall. Stocking density had a significant impact on average wet body weight, total yield, feed conversion (FCR), and protein efficiency (PER). Prawn reared at the lower density had higher average weight (42.9 g), FCR (7.22), PER (1.6), and lower yield (855 kg/ha) than those reared at the higher density, which averaged: 31.2 g, 5.0, 1.2, and 1,231 kg/ha, respectively. Based on these results, WBG is a suitable feed for pond production of prawns at densities up to at least 40,000/ha, which may substantially reduce feed and production costs.