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The economic impact of low cost imported Asian prawns on the NSW aquaculture industry

Jeffrey A. Guy

NSW Department of Primary Industries, Grafton Aquaculture Centre, Grafton, NSW

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THE ECONOMIC IMPACT OF LOW COST IMPORTED ASIAN PRAWNS ON THE NSW AQUACULTURE INDUSTRY



■■■■■ FUTURE

Nationally, there are strong and growing pressures on the Australian prawn farming industry to diversify because of Asian low-cost commodity competitors. At present, NSW growers are reluctant to partially or completely convert their farms to marine fish until the cost of production, viability and market are verified. In 2008 NMSC, with RIRDC funding, began investigating the potential of Mulloway or jewfish (*Argyrosomus japonicus*) farming in northern NSW prawn ponds (Figure 3). The focus of the research is to make a transparent appraisal of viability and inform farmers how a change from prawn to mulloway culture can be implemented. Levels of production output, cost structures and viability will be available by 2011. The potential regional economic benefits from a moderate diversification strategy (30%) across the prawn farms could provide around 35ha for Mulloway farming. Assuming 10 tonne per ha production, 350 tonne could be produced and, at a market price of \$9.50 per kg farm gate, the GVP would be around \$3.3 million. The need for higher prices through added value is evident.



Figure 3 Mulloway are ideally suited to northern NSW growing conditions and are a potential new culture industry that could be rapidly developed.

■■■■■ PRESENT

In NSW, the response to cheaper and smaller imported farmed prawns was to scale back production in 2003 and focus on a larger, high quality product. Larger size grades (>25g) rarely face competition from imported product and gain a substantial price premium over smaller size grades. To achieve this, stocking densities were lowered from 45 to 10 post-larvae per square metre resulting in a massive reduction in output (Figure 2). Production in 2002-2003 was 408.82 tonnes, but by 2006-2007 this had dropped by 50% to 198.67 tonnes. An economic analysis (McIlgorm and Guy, in prep.) indicates that prawn farming was profitable in 2002-2003, returning 16.8% to capital (full equity), but by 2006-2007 this had fallen to -9.5%. The NSW prawn farming Gross Value of Production (GVP) also dropped from \$6.12 million in 2002-2003 to \$2.58 million in 2006-2007. This downturn represents an overall loss of GVP of \$3.54 million, and at least 28 direct jobs in the Northern Rivers community. Diversification into marine fish culture may reinvigorate this region.



Driving this shift has been the strong appreciation of the Australian dollar, which has made imports more attractive to Australian consumers, and the massive expansion of lower cost *Penaeus vannamei* culture in Asia. In this poster we compare production output, cost structures and viability of the NSW industry before (2002-2003) and after the influx of competing imports (2006-2007).

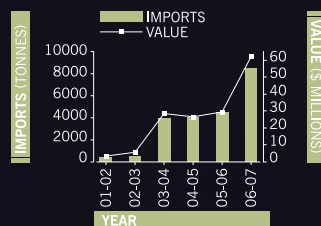


Figure 1 Australian imports of fresh, chilled or frozen shrimp from China 2001-2007 (Source: ABARE Australian Fisheries Statistics 2004, 2006, 2008).

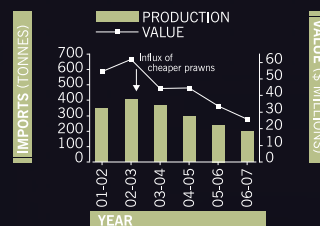
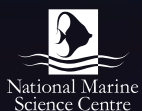


Figure 2 Production and value of farmed black tiger prawn (*Penaeus monodon*) in NSW 2001-2007 (Source: NSW DPI Aquaculture Production Reports 2001-2007).

Alistair McIlgorm and Jeff Guy
National Marine Science Centre,
Bay Drive, Coffs Harbour,
NSW 2450, Australia
Email jguy@nmssc.edu.au

The NSW prawn industry is concentrated in Palmers Island, near Yamba, in the Northern Rivers region, and is the state's most valuable land-based aquaculture sector. However, in the last five years imports of cheaper and smaller prawns from South East Asia, particularly China, have increased dramatically, seriously impacting the industry (Figure 1).



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