

Faster growing black bream make more cents

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Black bream (*Acanthopagrus butcheri*) appear an ideal candidate for the developing saline aquaculture industry of inland Western Australia. However, current maximum growth rates of 150g/annum are too slow for profitable production. This study investigated whether enhanced growth rates of black bream would improve profitability and justify a genetic improvement program. A cost-return analysis was conducted for two different fish production systems; a commercial operation that incurred more operating expenses due to costs associated with farm initiation (stand-alone farm model), and an existing farm that diversified into aquaculture using the saline water resources of established farm dams (integrated farm model). Sensitivity analyses indicated that a 33% increase in growth rate to at least 200g/annum would allow either production system to return a profit at a farm-gate price of AUSS\$6/kg whole fish, with commercial-scale stocking densities of 3750 fish/ha for the stand-alone farm, and a 35% reduction to 2500 fish/ha for the integrated farm model. These results are discussed in the context of the genetic and economic consequences of selection for improved growth rates, and for developing breeding objectives and a genetic improvement program for black bream. (POSTER)