

ABSTRACT

Growth and carcass characteristics of Angus and American Wagyu steers

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Ten purebred Angus and ten crossbred (3/4–7/8) American Wagyu steers were fed a corn and barley-based diet for 552 days and slaughtered. All USDA and Japanese yield and quality grade factors were evaluated and the amount of extractable lipid and moisture in totally trimmed muscle was determined. Angus steers gained 0.9 kg/head/day and American Wagyu steers gained 0.7 kg/head/day. This difference in growth rate resulted in Angus steers having a heavier final weight ($P < 0.05$). Angus steers required less feed per unit of gain than did American Wagyu steers. Adjusted fat thickness over *M. longissimus dorsi* opposite the 12th rib was approximately 3.5 cm and was not statistically different between the two breeds ($P > 0.05$). Average ribeye area and kidney, pelvic and heart fat were similar for the two breeds. The calculated USDA yield grade for both breeds exceeded 6. Average USDA marbling score was nearly a degree of marbling higher for American Wagyu than for Angus, but variation within breed groups was high. Average USDA quality grade was well into USDA Prime for all carcasses and did not differ by breed ($P > 0.05$). Japanese yield grade factors were similar for both breeds except for cold left side weight and the yield estimation which includes an adjustment factor that favors American Wagyu. American Wagyu steers merited a higher Japanese marbling score than did Angus ($P < 0.05$). Beef color score, firmness, texture and firmness and texture grade were also different between the breeds ($P < 0.05$). Fat colour, luster and quality were not different ($P > 0.05$). These data clearly show that some American Wagyu steers have the genetic ability to deposit as much marbling as Japanese Black cattle raised in Japan.