Grazing weaners on oats: the effect of compensatory gain on productivity and profitability

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Introduction

In central Queensland, it is common industry practice to graze growing cattle on forage oats, before returning them to a grass pasture, despite the potential for compensatory gain. Producers have indicated they do not understand compensatory gain and its impact on profitability (Bowen and Hopkins 2016). The objective of this study was to demonstrate the effects of compensatory gain on productivity and profitability resulting from grazing weaners on oats in the dry season followed by grass pastures in the wet season.

Methods

An On-farm trial (OFT) on a commercial producer co-operator's property at Taroom, central Queensland was conducted over two years; 2016 dry season - 2017 wet season and 2017 dry season - 2018 wet season. Each year, a group of mixed Santa Gertrudis and Brangus weaner steers were stratified on weight and randomly allocated to two mobs resulting in similar average starting mob weight (Year 1: 307 kg; oats n=64; grass n=63. Year 2: oats 270 kg, n=75; grass 268 kg, n=74). Cattle were weighed on and off their starting paddock (oats or buffel grass pasture) in the dry season and then grouped together to graze grass as one mob for the subsequent wet season. Cattle were weighed off the grass pasture at the end of the wet season.

Results and discussion

During the dry season in both years, cattle that grazed oats had a significantly ($P<0.05$) higher average daily weight gain (ADG; kg/head) than those grazing grass (Year 1: oats 1.05 vs grass 0.95; Year 2: oats 1.07 vs grass 0.64). However when grazing grass in the subsequent wet season, cattle that had come from dry season grass experienced compensatory growth with significantly ($P<0.05$) higher ADGs than the cattle that came from oats (Year 1: oats 0.92 vs grass 0.97; Year 2: oats 1.03 vs grass 1.16). In Year 2 there was a significant ($P<0.001$) difference in the weight of oats and grass cattle at the end of the oats season (oats cattle on average 42.1 kg heavier) but this was reduced to a significant ($P<0.001$) difference of 29.3 kg after 98 days grazing wet season grass. The difference in the weight of cattle at the point of sale was reduced due to compensatory gain, which eroded the liveweight and economic benefit provided by the forage oats crop. Whole-farm economic analysis showed that feeding weaners oats and returning them to grass before sale was not a profitable venture. This supports previous research on the use of oats over a longer time frame and confirms that feeding forage oats to cattle at any point in their lifetime reduces the profitability of the beef enterprise compared with a grass-only grazing system (Bowen and Chudleigh 2018).

References

Bowen MK, Chudleigh F (2018) Productivity and profitability of alternative steer growth paths resulting from accessing high quality forage systems in the subtropics of northern Australia: a modelling approach. Animal Production Science (published online 18 December 2018). AN18311

Bowen M and Hopkins K (2016). Report on extension activities for project 'High-output forage systems for meeting beef markets – Phase 2.' Project B.NBP.0636 Final Report. (Meat and Livestock Australia: Sydney)

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