

EFFECT OF STOCKING RATE ON PRODUCTION OF FRIESIAN COWS GRAZING
IRRIGATED ANNUAL RYEGRASS OR CLOVER PASTURES IN SOUTHERN QUEENSLAND

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Irrigated, high density temperate pastures have been developed to provide high quality winter feed on Queensland dairy farms. In this experiment, annual pastures of nitrogen fertilized Tama ryegrass were compared with mixtures of Clare subterranean, Ladino white, Gr Hamua red and shaftal clovers and ryegrass (Moss et al. 1985) at 5 or 10 Holstein-Friesian cows/ha over 3 years. Pastures were grazed in association with unimproved rain grown grassland and were grazed from early May to mid December each year. Cows calved in autumn and received a supplement of 3 kg molasses + 1% MAP throughout the experiment.

Increasing stocking rate from 5 to 10 cows/ha reduced milk yields from 12.4 to 11.0 kg/cow/day for ryegrass and from 13.0 to 10.2 kg/cow/day for clover pastures. Cows at the high stocking rate lost 20 kg live weight, while those at the moderate stocking rate gained 34 kg during lactation. Pasture on offer from May to November averaged 1.9 and 1.0 t DM/ha for ryegrass and 1.0 and 0.7 t DM/ha for clover at 5 and 10 cows/ha respectively.

Ryegrass provided more feed in winter and produced more milk at the high stocking rate. Less nitrogen fertilizer was required for the clover pastures, and at moderate stocking rates milk yields of cows grazing clovers were equal to or greater than those of cows grazing ryegrass.

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GRADED LEVELS OF MONENSIN SODIUM IN MOLASSES BASED DIETS FOR GROWING CATTLE

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Little is known about the efficacy of monensin as a rumen modifier for cattle fed molasses based diets. One report indicated that when monensin was included at 50 mg/kg molasses feed intake was reduced by 40% with little reduction in liveweight gain (Bube et al. 1984). The present study was designed to find the optimum level of inclusion of monensin when added to molasses based diets for growing cattle.

Forty-eight Bos indicus crossbred steers (118 kg live weight) were used in a 70 day pen study. The basal diet was molasses plus 3% urea fed ad libitum and 750 g chaffed hay plus 400 g cottonseed meal offered daily per head. Monensin was included in the molasses mixture at 0, 15, 45 and 75 mg/kg (T0 to T75).

The molasses intake of T0 was 2.1 kg/d and increased by up to 40% when monensin was added. The liveweight gain varied from 0.24 kg/d on T0 to 0.40 kg/d on T45. Thus the optimum level of inclusion of monensin was 45 mg/kg.

REFERENCE

BUBE, A., DAVIS, C.H. and PRESTON, T.R. (1984). In "Ruminant Physiology - Concepts and Consequences", editors S.K. Baker, J.M. Gawthorne, J.B. Mackintosh and D.B. Purser. (University of WA).

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