

RICE HULLS AS THE ONLY ROUGHAGE IN CATTLE **FEEDLOT** RATIONS

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Rice hulls are a low energy roughage of **consistent** quality freely available as a by-product of rice milling. They are available year round and store well with little risk of spoilage or spontaneous combustion and are very resistant to fire. Ground rice hulls have been successfully used as a least cost ingredient for many years in supplementary feeds for horses and ruminants, and in complete feeds for poultry, pigs and live export sheep. More recently ground **rice hulls** have been used commercially in large quantities in total mixed rations for finishing beef cattle.

Following establishment of a low cost opportunity beef cattle **feedlot** at Yanco Agricultural High School in the Murrumbidgee Irrigation Area whole unground rice hulls have been compared with tub ground barley straw as a **roughage source**. **Feedlot** finishing rations were 76% crushed barley, 5% crushed lupins, 15% roughage, with 4% of a protein concentrate pellet containing monensin and vitamins, minerals and trace elements to adequately cover NAS-NRC requirements. The trial involved a total of 30 crossbred steers with 15 randomly allocated to each treatment for 92 days which included a 28 day introductory period. The results are shown in the table.

TABLE 1 Liveweight and feed conversion data for 'steers fed rice hulls or barley straw as roughage

	Whole unground rice hulls	Tub ground barley straw
Days on feed	92	92
Start weight kg	256	257
Finish weight kg	379	366
Daily liveweight gain kg	1.34	1.18
FCR (feed/liveweight gain)	7.0	8.1

Acceptance of rations was good and management was the same as in a traditional **feedlot**. Use of whole unground rice hulls as the sole source of roughage resulted in no significant difference in liveweight gain and feed conversion efficiency. However **labour** and machinery costs were reduced as a result of less roughage processing, a denser **total mixed** ration and therefore reduced mixing time.

Whole unground rice hulls can be used in total mixed **feedlot** rations with no further processing and offer considerable advantages over traditional roughage sources.

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