

Estimated costs of producing alcohol from sugar or fodder beet on the southern tablelands of N.S.W.

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The associated paper gives a precis of the yielding ability of sugar and fodder beet, and estimates growing costs. This paper looks at the total costs involved in producing alcohol from beets.

Growing Costs

Growing costs have been estimated at \$880 per hectare.

The following yields and costs are based on trials on the southern tablelands of New South Wales (Reported in paper 1).

Crop	Alcohol Yields L/ha		Cost per Litre (c)	
	Average	Range	Average	Range
Sugar beet	2649	1470 to 4041	33	22 to 60
Fodder beet	2245	1490 to 2720	39	32 to 59

Processing and Opportunity Costs

Land and machinery are limiting resources that can be used on other enterprises. This "opportunity cost" should therefore be included when costing beets as potential fuel or fodder sources because it is income foregone.

The above growing and harvesting costs include an opportunity cost for the machinery involved calculated by costing operations at contract rates.

Gross margin returns in July 1981 for irrigated potatoes, and dryland improved pastures in the Tablelands stocked at 15 D.S.E. per hectare are as follows:

Enterprise	Gross Margin	Opportunity cost	Total Farm cost	Total Estimated Cost farm
	\$ ha ⁻¹	c L ⁻¹ Alcohol*	(opportunity + growing) c L ⁻¹	+ opportunity + process) c L ⁻¹ Alcohol
Merino wool production	80	3.2	40	50 to 60
Crossbred ewes for prime lambs	103	4.1	41	51 to 67
Vealer prod.	234	9.4	46	56 to 72
Whole milk dairying	818	33.0	70	80 to 96
Potatoes (selling @ \$150/tonne)	3,150	128.0	163	173 to 189

* Based on average yield 2,500 litres alcohol per hectare.

Conclusions

Beets have been promoted as alternative enterprises to dairying and potatoes (1). On our experience this is a most uneconomic use of farm resources, particularly when allowance is made for opportunity costs.

1. Fuel Ethanol, Research and Development Workshop. Department of National Development and Energy, Canberra, 1980.