

DROUGHT CO-ORDINATORS GIPPSLAND



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Gippsland Drought Response

Water Budgeting on Farms

This flier contains important information on how to calculate daily stock water requirements for dairy cattle and relate this to existing farm water storages or alternative water sources.

Below is an example of calculations for a water budget

This information has been prepared by Bob Gray, Agricultural Consultant, Gray Consulting Pty Ltd, Phone 03 5622 1179, email bgray@sympac.com.au

Water is used or consumed by stock, dairy, evaporation and households

(A)	DAIRY	Note there is a huge range and it is usually underestimated	
		50 unit rotary dairy	16,000 – 60,000 litres / day
		30 unit Herring bone	6,000 – 26,000 litres / day
		18 unit Herring bone	6,000 – 20,000 litres / day
		<i>(Ref. McDonald, DPI 2005)</i>	
		For 200 cow dairy estimate	= 15,000 litres/day
(B)	STOCK	200 cows x 150 litres / day	= 30,000 litres/day
(C)	EVAPORATION		
		If 5mm / day and dam is 700 square metres = 5 x 700	= 3,500 litres/day
(D)	HOUSEHOLD		
		Assume for 4 people = 400 litres / day	= 400 litres/day
		Total daily use	= 48,900 litres/day

Water supplied by dams

To estimate water volume of dam = Average width (m) x Average length (m) x Average depth (m)
Example (20m x 35m x 4m) x 1000 = **2,800,000 litres (2,800 cubic m)**

Days of water available

Demand is 48,900 litres / day and in storage is 2,800,000 litres so $2,800,000 \div 48,900 =$ **56 days** of water available.

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