THE PERMAGARDEN APPROACH | HOW TO GUIDES

How to Do a Rainfall Calculation

WHAT IS IT?

A calculation to determine the total number of liters of water that fall on a site every year.

WHY DO WE DO IT?

Knowing how much rainwater will potentially fall on a plot of land highlights the value of implementing an efficient water management system that saves this water in the soil rather than bringing the water to the plot through a labor-intensive process, such as hand watering, or resource-intensive process, such as irrigation.

METHOD

STEP 1
Determine the size of an average farm in the region in square meters.

STEP 2
Find the annual rainfall for the region in millimeters through an online search or conversation with a local extension agent.

STEP 3
Multiply the farm size (sq mt) by the annual rainfall (mm) to get the total liters of water that falls on an average farm every year.

STEP 4
Convert this amount of rain to jerrycans by dividing by 20. This number can be further divided by 365 to find the number of jerrycans per day that are provided through rainfall alone.

Example Rainfall Calculation

Farm size (sq Mt) x Annual rainfall (mm) = Total Liters of water that falls on farm every year

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Total Liters of water that falls on farm every year ÷ 20L ÷ 365 days = **# of jerrycans per day** provided by rainfall rather than the farmer

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For example, a quarter-hectare farm (2,500 sq mt) in eastern Congo will recieve on average **1,200 mm** of rain every year:

2,500 sq mt x 1,200 mm = 3,000,000 liters of water that falls on farm every year

3,000,000 L ÷ 20L ÷ 365 days = **410 of jerrycans per day** provided by rainfall alone

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