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Experiment No-7: Determination of infiltration rates of light soils.

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Theory

The infiltration rate is the velocity or speed at which water enters into the soil. It is usually measured by the depth (in mm) of the water layer that can enter the soil in one hour. An infiltration rate of 15 mm/hour means that a water layer of 15 mm on the soil surface, will take one hour to infiltrate.

In dry soil, water infiltrates rapidly. This is called the initial infiltration rate. As more water replaces the air in the pores, the water from the soil surface infiltrates more slowly and eventually reaches a steady rate. This is called the basic infiltration rate.

The most common method to measure the infiltration rate is by a field test using a cylinder or ring infiltrometer.



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Equipment required

Watchor clock

Shovel/ hoe

Hammer

4. 5 liter bucket

5. Timber (75x75x400)

6. Hessian (300x300)or jute cloth

7. At least 100 liters of water



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Observation: Students must complete your calculation with above formula and write proper conclusion from data sheet.

Sample No	Infiltration rate (mm/hr)	Remark
1.		
2.		
3.		