

N = Number of bacteria at the end of the time interval

n = number of generation

* Calculation of bacterial cell density

* Cell density is the number of cells per unit volume.

* The number of bacterial cell can be determined directly as well as indirectly.

* Direct measurement can be determined carried out by measuring colony number or by counting the number of cells in known volume with a microscope.

* where as indirect method involves the measurement of optical absorbance through spectrophotometer.

* Measurement of colony number.

= $\frac{\text{Number of colonies formed}}{\text{militre plated}} \times \text{dilution before plating}$

= $\frac{\text{Number of viable cells}}{\text{militre of individual culture}}$