Counting salmon eggs volumetrically (Example)

Fish hatcheries must take regular inventory of the amount of eggs or taken during spawning and how well they are surviving in the hatchery. Will millions of eggs to count, it is not possible to count every egg, so estimation the egg number is perform volumetrically. This exercise will present the methods used.

Equipment and materials

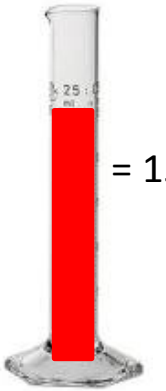
250 mls

Graduated cylinders

25 mls

Plastics beads Representing eggs

Count the number of eggs in 25 ml



= 153 eggs

Measure all eggs (including the eggs counted) to obtain a total volume (may require filling)

Total volume = 5,000 ml

Calculation

$$\frac{153 \text{ eggs}}{25 \text{ mls}} = \frac{X \text{ eggs}}{5{,}000 \text{ ml}} \longrightarrow \frac{153 \text{ eggs} \times 5{,}000 \text{ mls}}{25 \text{ mls}} = 31{,}875 \text{ eggs}$$