

Date _____

Beer _____

bbls _____

°Plato _____

Generation _____

% Viability _____

Gal of yeast needed _____

Number of cells counted slide 1 _____

Number of cells counted slide 2 _____

Average number of cells counted _____

$$\text{_____ } ^\circ \text{ Plato wort} \times \frac{1 \times 10^6 \text{ viable cells/mL wort}}{1^\circ \text{ Plato}} = \text{viable cells/mL wort} = \text{_____}$$

$$\text{_____ bbl wort} \times \frac{117.35 \text{ L wort}}{1 \text{ bbl wort}} \times \frac{1000 \text{ mL wort}}{1 \text{ L wort}} \times \frac{\text{viable cells}}{\text{mL wort}} = \text{total cells needed} = \text{_____}$$

$$\frac{(\text{average \# cells counted})(5)(\text{dilution})}{\text{Chamber volume (0.0001 mL}^3)} = \text{yeast cells/mL of slurry} = \text{_____}$$

$$\text{Total cells needed} \text{ _____} = \text{mL yeast slurry required} = \text{_____}$$

Yeast cells/mL of slurry

Convert to gallons

$$\text{mL slurry} \times \frac{1 \text{ gal slurry}}{3785 \text{ mL slurry}} = \text{gal slurry} = \text{_____}$$

Viability

% difference between two slides

Total number of cells counted _____

Difference between slide 1 and 2 _____

Number of blue cells _____

Average of slide 1 + total slide 2 _____

$$\frac{\text{\# blue cells} - \text{total \# cells}}{\text{total \# cells}} \times 100 = \% \text{ viability}$$

$$(\text{Difference/average}) \times 100$$