

TEMPERATURE REQUIREMENTS

Bacteria can live under a wide range of temperatures. Those that are Psychrophiles (cold growing) grow best within a range of 0° - 20° C. Mesophiles ("Moderate Loving") grow best at temperatures ranging from 20° - 40° C. Most of the bacteria used in our laboratory and animal pathogens are mesophiles. The thermophiles or "Heat Lovers" prefer temperatures in the 40° - 65° C range.

In this experiment you will discover the optimum temperature of four species.

Experiment Temperature Requirements

This experiment will be modified from the one outlined in the manual. Instead of using TSA plates and Sabouraud broth you will use glucose broth.

Culture Medium:

16 tubes glucose broth

Broth Cultures: S. marcescens

S. marcescens

Pseudomonas fluorescens

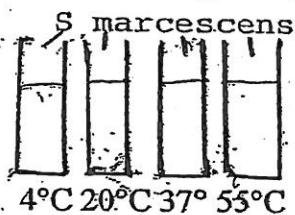
Bacillus stearothermophilus

E. Coli

Procedure:

1. Inoculate each culture into four separate tubes of glucose broth.

Ex.



Glucose Broth

2. Incubate each culture at the temperatures specified above for 48 hours.