

516c Broth Conditions Determining Specific Cake Resistance during Microfiltration of *Bacillus Subtilis*

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The effects of broth pH, pressure, temperature and fermentation medium on specific cake resistance were studied for dead-end microfiltration of *Bacillus subtilis*. Decreases in pH and transmembrane pressure decreased the specific cake resistance for cells grown in both complex and defined media. With the complex medium, the reduction in resistance with temperature decrease did not offset the flux decrease caused by the increase in viscosity. The greatest decrease in specific cake resistance occurred with adjustment of pH to 7.5 for cells grown in defined medium. For those cells the change in pH resulted in aggregation leading to a large increase in flux.