

Spore Methods Project
June 2019
Milk Quality Improvement Program
Department of Food Science
Cornell University

Materials

- ☐ Plate Count Milk Agar (PCMA) plates x 80 (6 for each powder + 20 extra)
- ☐ Tryptic Soy Agar (TSA) + 1% Starch Agar plates x 80 (6 for each powder + 20 extra)
- ☐ 250 mL glass bottles with screw on cap containing 180 mL phosphate buffer x 12 (1 for each powder + 2 extra)
- ☐ 50 g samples of milk powders A-J (total of 10 powders)
- ☐ Modified pressure cooker
- ☐ Dual input thermometer (probes attached to pressure cooker lid)
- ☐ Induction hot plate
- ☐ Sterile 50 mL glass tubes with screw on cap x 40 (1 for each powder/test combination + 3 temperature control + 7 extra)
- ☐ Rack for glass tubes
- ☐ Sterile disposable plastic spreaders x 40 (1 for each powder/test combination + 10 extra)

SOPs

- ☐ Spore Pasteurization
- ☐ Highly Heat Resistant Spore Pasteurization
- ☐ Specially Thermoresistant Spore Enumeration
- ☐ Specially Thermoresistant Spore Enumeration (Video)
 - ☐ Link to video: <https://vimeo.com/296731234>
 - ☐ Password: sporemeth2018

Project Documentation

- ☐ Phase III Flow Chart
- ☐ Plate Interpretation Guide
- ☐ Powder Testing Results Template