

SET UP FOR MEAT AND MILK ASSAY

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http://biology.clc.uc.edu/fankhauser/Labs/Microbiology/Meat_Milk/meat&milk_setup.htm

Set up the following stations to expedite the class testing of bacterial counts in meat and milk:

LABEL TUBES AND PLATES, CREATE TABLE IN NOTEBOOK. THEN, MEASURE OUT DILUENT IN TUBES:

In front of room, each student: 5 sterile capped 16x150 mm tubes in a test tube rack, 5 empty plates.

Label five 16 x 150 mm tubes in rack:

Label five plates:

	tube	marking	diluent	plate	aliquot	dilution
Milk:	1	10 ²	9.9 mL	1	0.1 mL	10 ²
				2	1.0 mL	10 ²
Meat:	2	Susp'n	empty			
	3	10 ¹	9.0	3	1.0 mL	10 ¹
	4	10 ²	9.0	4	1.0 mL	10 ²
	5	10 ³	9.0	5	1.0 mL	10 ³

STATIONS FOR MEAT AND MILK ASSAY

One Dilution Blank station: (front desk)

two flames, one each at the repipets:

Repipet with sterile dH₂O, set on 9.9 mL (tube 1 = diluent for milk: make one)

Two repipets with sterile dH₂O, set on 9.0 mL (tubes 3, 4, 5 = diluent for meat: make three)

Two Meat Weighing Stations (two stations, side by side on side bench near window):

One for Beef, one for turkey (etc):

two balances, each with a plastic beaker to hold test tube for weighing

two 16 x 150 mm test tubes, each in their own rack, each ½ full of 95% EtOH

two microspatulas in each of the EtOH test tubes

two flames

hot soapy water in nearest sink to wash off meat and fat from spatulas

quart Mason jar to receive meat suspension after it has been diluted and plated

Two Meat Suspension Stations (seats 5 and 9 near weighing stations):

Seat 5: Repipet with sterile dH₂O, set on 3 mL and a vortex

eight microspatulas in 16 x 150 mm test tubes ½ full of 95% EtOH

flame

Seat 9: Repipet with sterile dH₂O, set on 7 mL and a vortex and a flame

Four Meat Dilution Stations (in pairs, side by side) (seats 13, 14, 15 and 16):

two flames

two boxes of 2 mL pipets, sterile (Need 5 per student.)

Four pipet bulbs

Two Milk Dilution station (side by side) (seats 7 and 8)

100 uL displacement pipets and yellow tips (measure initial milk aliquot)

1000 uL displacement pipets and blue tips (to measure the last meat dilution aliquot)

vortex

pipet receptacle

Two Plate Pouring Stations (seats 17 and 18)

flame

deep hot block, 45°C or water bath

100 16x150 mm capped tubes with 15 mL melted Plate Count Agar (for class of 20)

(be *sure* hot blocks have correct temp... cover with styrofoam box.)

tub 2/3rds full of warm water to receive emptied test tubes