

ON FARM CULTURE LABORATORY SET UP

On farm culture systems require a **designated workspace**. Ideally, this should be a clean, well-lit room in a low-traffic area. There should be sufficient counter space and storage that are easily disinfected.

Food should not be allowed in this area for health reasons.

INCUBATOR

CHECKLIST

- o A small **incubator** should be purchased to create an environment ideal for bacterial growth.
- o Keep the incubator at 37°C or 98.6°F (body temperature).
- o A thermometer should be kept inside the incubator at all times, and should be checked daily.
- o The humidity should be maintained at 75% by placing a dish of water inside the incubator. Water level should be checked daily and replenished as needed.

REFRIGERATOR

- o A **refrigerator** should be purchased for storing media plates and saved milk samples. This refrigerator should not be used for human or animal food.

EQUIPMENT

- o On-farm cultures use **sterile swabs** to plate milk samples instead of the sterile loops used in milk quality labs. The estimated plating volume of swabs is 0.1 mL if the swab is dipped in the milk sample for 10 seconds prior to plating.
- o **Disposable gloves** should be worn at all times when handling lab materials.
- o **Media plates**
- o **Gauze squares** soaked in 70% alcohol for disinfecting teats and the counter surface
- o **Single-use milk sample vials**
- o **Racks for holding sample vials**
- o **Permanent marker**
- o **Biohazard bags**
- o **Bleach**
- o A **cooler** with ice for transporting samples from the cow to the lab area.

PLATE DISPOSAL

- o One more consideration for lab set-up is waste disposal. Use orange biohazard bags whenever discarding infectious materials such as milk samples and culture plates.
- o This lab waste must be disposed according to your local regulations. In some locations, plates may be flooded with bleach and then disposed of normally.
- o If you have questions about disposal protocol in your area, ask your herd veterinarian.