

Activity 3.3.2 Scenario One

You built a new state-of-the-art broiler barn and want all of your fellow poultry producers to come over and check it out. You invite them over for a visit one morning after they have had time to finish chores on their farms.

To simulate this, your team will test the door handle of the classroom. Team members not handling the dish will alternate as specimen collectors.

Sample 1 – All Visitor’s Welcome Farm

1. Remove a cotton swab from the packaging.
2. Use the swab to thoroughly wipe the door handle of the classroom.
3. Raise the lid of the petri dish approximately one inch and streak Section 1 with the swab by gently moving the swab across the section of the dish in a zigzag pattern.
 - **Caution:** Be careful not to gouge the agar with the swab.
4. Quickly replace the lid of the petri dish.
5. Put the swab back into the packaging it came from and dispose of it in the waste container as instructed by your teacher.

Sample 2 – Limited Access Farm

1. Disinfect the door handle with a disinfecting wipe and allow it to air dry.
2. Each member of your team should open the door, making sure to have solid contact with the handle.
3. Repeat Steps 1 – 5 from above using Section 2 of your petri dish.

Sample 3 – Restricted Access Farm

1. Have one member of your team wash his or her hands thoroughly with antibacterial soap.
2. Disinfect the door handle with a disinfecting wipe and allow it to air dry.
3. Without touching any other objects, have this teammate open and close the classroom door.
4. Repeat Steps 1 – 5 from above using Section 3 of your petri dish.
5. Seal the petri dish with the material provided by your teacher.
6. Invert the dish so the lid is on the bottom and place in the incubator.
 - Incubator should be set at 37°C.
 - The dish is inverted to prevent condensation from building up and dripping on the bacterial colonies as they form.
7. Clean up your work area and wash your hands before leaving the lab.



Activity 3.3.2 Scenario Two

You own a total confinement swine operation and have a high school student hired to help around the farm. He raises purebred Durocs at home for his SAE project. You figure it is fine if he wears his work-boots in both locations, after all pigs are pigs.

To simulate this, your team will test a dirty work-boot. Team members not handling the dish will alternate as specimen collectors and work together in sample preparation.

Sample 1 – Shared Farm Equipment

1. Remove a cotton swab from the packaging.
2. Using the swab thoroughly wipe the bottom of the boot.
3. Raise the lid of the petri dish approximately one inch and streak Section 1 with the swab by gently moving the swab across the section of the dish in a zigzag pattern.
 - **Caution:** Be careful not to gouge the agar with the swab.
4. Quickly replace the lid of the petri dish.
5. Put the swab back into the packaging it came from and dispose of it in the waste container as instructed by your teacher.

Sample 2 – Cleaned Farm Equipment

1. Using the bucket of warm water and scrub brush, clean the debris from the sole of the work-boot. Allow the boot to air dry.
2. Repeat Steps 1 – 5 from above using Section 2 of your petri dish.

Sample 3 – Disinfected Farm Equipment

1. Place the work-boot in the disinfecting solution and allow it to sit for the recommended time.
2. Remove the boot from the disinfecting solution.
3. Repeat Steps 1 – 5 from above using Section 3 of your petri dish.
4. Seal the petri dish with the material provided by your teacher.
5. Invert the dish so the lid is on the bottom and place in the incubator.
 - Incubator should be set at 37°C.
 - The dish is inverted to prevent condensation from building up and dripping on the bacterial colonies as they form.
6. Clean up your work area and wash your hands before leaving the lab.



Activity 3.3.2 Scenario Three

You recently purchased ten Holstein replacement heifers for your dairy. When you brought them home, you had a separate pen for them, but the water tank is shared with the pen of replacements you raised.

To simulate this, your team will test water samples. You will need three 100 ml beakers and water. Team members not handling the dish will alternate as specimen collectors and work together in sample preparation.

Sample 1 – Comingled Water Trough

1. Each team member must wash his or her hands.
2. Pour 50 ml of water into the first beaker.
3. Have each team member spit once into the beaker.
4. Stir with the stirring rod and wipe the rod with a disinfecting wipe.
5. Remove a cotton swab from the packaging.
6. Swirl the swab in the water mixture.
7. Raise the lid of the petri dish approximately one inch and streak Section 1 with the swab by gently moving the swab across the section of the dish in a zigzag pattern.
 - **Caution:** Be careful not to gouge the agar with the swab.
8. Quickly replace the lid of the petri dish.
9. Put the swab back into the packaging it came from and dispose of it in the waste container as instructed by your teacher.

Sample 2 – Individual Water Supply

1. Pour 50 ml of water into the second beaker.
2. Have one team member spit one time in the beaker.
3. Repeat Steps 4 – 9 above using Section 2 of your petri dish.

Sample 3 – Control for Contaminants in Water

1. Pour 50 ml of water into the third beaker.
2. Repeat Steps 5 – 9 above using Section 3 of your petri dish.
3. Seal the petri dish with the material provided by your teacher.
4. Invert the dish so the lid is on the bottom and place in the incubator.
 - Incubator should be set at 37°C.
 - The dish is inverted to prevent condensation from building up and dripping on the bacterial colonies as they form.
5. Clean up your work area and wash the beakers, stirring rods and your hands before leaving the lab.