PURPOSE

The purpose of this SOP is: 1) to be able to teach students/staff blood collection technique in swine, 2) to collect blood for the purpose of teaching students how to run physiological or immune assays, 3) to collect blood for the development of new physiological or immune assays and 4) to maintain a Brucellosis Validated and Pseudorabies Qualified swine herd by testing blood samples on a quarterly basis.

BLOOD SAMPLING

A. Schedule employees to snare and take blood samples
B. Gather supplies needed.
   1. Monovettes to sample 25% of the adult herd
   2. Same number of 4" x 16 gauge needles
   3. 10mL vacutainer blood tubes to sample piglets equal to 5% of adult herd
   4. Same number of 1.5" x 20 gauge vacutainer needles
   5. Vacutainer holder
   6. Sharps container
   7. Lab markers
   8. Cooler with ice packs and tube rack
   9. Cup for holding Monovette lids
C. Change into appropriate clothing.
   1. Cover-alls
   2. Boots
   3. Ear protection
   4. Exam gloves if sampling
D. Restraining the Swine
   1. Adult swine will be caught with a pig snare behind the tusks of the upper jaw and held firmly.
   2. Piglets will be caught by hand and placed dorsally into a V-trough. The legs will be held still by one or two people.
E. Taking the blood sample
   1. Blood samples from adult swine will be taken with a 10mL Monovette syringe and a 4" long 16 gauge needle. Insert the needle into the pig’s right jugular vein, aiming toward the pigs left shoulder blade. Withdraw the syringe plunger during insertion to create a vacuum in the syringe. As soon as blood is seen in the syringe, stop advancing and take the blood sample.
   2. Blood samples from piglets can be taken with a 10mL vacutainer blood tube and 20 gauge blood collection needle. Have a blood collection needle set in a holder. Have the blood tube ready in the holder but not depressed onto the needle yet.
3. With the piglet lying on its back, insert the needle into the jugular vein in the piglet’s neck to the right or left of the trachea. Depress the blood tube onto the needle. Continue to insert the needle until blood is seen in the tube. Allow the tube to fill. Blood samples can also be taken with a 3-10 cc syringe and 20 gauge needle.

F. The blood Sample
   1. Use the lab marker to identify the blood tube or syringe with the pig’s ID #.
   2. Place the sample in the rack in the cooler. Transport back to campus.

QUARTERLY TESTING

LAB PROCEDURE
A. Gather Supplies Needed
   1. Centrifuge
   2. Cryovials
   3. Transfer Pipettes
   4. Lab Marker
B. Spin the blood for 10 – 15 minutes in a centrifuge.
C. Using a pipette, draw off 1.8 mL serum, transfer to a Cryovial. Close lid tightly.
D. Label the Cryovial with the pig ID # and make a list of the numbers.

FILLING OUT THE REPORT
A. Gather Supplies Needed
   1. Texas Animal Health Commission Swine Test Record (front page)
   2. Texas Animal Health Commission Swine Test Record (continuation page)
   3. Freezer Box
   4. Texas Veterinary Medical Diagnostic Laboratory form
B. Fill out veterinary information and account number (see an old form as an example)
C. Fill out the test record using one line per sample.
D. Mark the sample tube (Cryovial) with the corresponding sample number.
E. Circle the sample number on the tube (Cryovial). There will be two numbers on each tube, the pig ID number and the sample number.

SENDING THE SAMPLES
A. Gather Supplies
   1. Freezer box containing serum samples.
   2. Completed Swine Test Record
   3. Completed Lab form
   4. Paper towels
   5. Plastic baggies
   6. FedEx Express Lab Pack Mailing Envelope
   7. FedEx Express Airbill
   8. Large Manila Envelope
   9. Tape
B. Fill out Airbill, affix to Lab Pack
C. Wrap freezer box with paper towels, tape. Place into plastic bag, seal.
D. Wrap again with paper towels, tape. Place into another plastic bag.
E. Place into manila envelope and then into Lab Pack envelope
F. Place paperwork into a manila envelope and then into Lab Pack envelope.
G. Seal Lab Pack
H. Using instructions on the peel-off section of the Airbill, call in for a pick up or take the package to Mail Tech to be picked up by Fed Ex.

DATA ENTRY
A. Update the Swine Records with the pig ID numbers list you made while separating the serum.