Diseases of Feral Swine

- Feral hogs carry several diseases, some of which humans can become infected with. People that come in contact with feral hogs should always wear eye protection, rubber or medical gloves, and not let their hands come in contact with their face. Safeguard against any fluids coming into contact with any cut or abrasion.
Swine Brucellosis
• The causative agent of Swine Brucellosis is *Brucella suis*.

• *Brucella suis* is a facultative anaerobic bacteria.

• *Brucella suis* transmitted venereally or through contact with or ingestion of infected fluids or tissues.
  
  • Infected feral swine may be bacteremic for 60 days after infection. Reproductive fluids may stay infective for the life of the animal.
• *Brucella suis* is a zoonotic disease with human cases reported each year in Louisiana.

• Surveillance by LDWF shows a 5% seroprevalence for brucellosis.

• A recent study in Texas slaughterhouses showed a 5% seroprevalence also but 13% culture-positive---this means 13 out of 100 animals had the brucella bacteria present.
• *Brucella suis* causes infertility, abortions, orchitis, oophoritis, lameness, joint abscessation and discospondylitis in animals

• *B. suis* may cause undulant fever, malaise, joint pain and even death in people.
  • Humans may contract this disease by the introduction of bacteremic blood and bodily fluids into open wounds or onto mucous membranes.
  • Personal protective equipment is paramount when dealing with feral swine!
• Contagious to most mammals, excluding humans.
• Pseudorabies causes infertility and abortion in swine.
• Causes Aujesky’s Disease or “mad itch” in other species.
• Pseudorabies is caused by a herpesvirus.
• Transmitted via respiratory secretions and reproductive fluids.
• Pseudorabies may be carried by feral swine.
  • LDWF surveillance testing of over 1000 feral swine statewide revealed that 12% were serologically positive for pseudorabies.
  • Anecdotal reports from veterinarians and “hog doggers” indicate that this disease is being seen more in dogs.
Leptospirosis
• Causative agent is *Leptospira*.
• Gram-negative flagellated spirochete bacteria.
• Many serovars based on antigenic relatedness.
  • *Leptospira interrogans*
    • Serovars: *bratislava, pomona, icterohemorrhagica, canicola*
  • *Leptospira borgpetersenii*
    • Serovars: *sejroe, tarassovi*
  • *Leptospira kirschneri* serovar *grippotyphosa*
• *Leptospira interrogans* serovars *bratislava* and *pomona* are uniquely adapted to swine. Infected animals may be persistent shedders of the bacteria.

• *Leptospira hardjo* is commonly found in cattle and in swine which live in close proximity to cattle.
• Animals affected by leptospirosis may exhibit signs of fever, lethargy, myalgia, petechial hemorrhage, jaundice, hematuria, abortion and death.
• Leptospirosis has long been considered the number-one cause of cattle abortions in Louisiana.
• White-tailed deer have also been shown to abort fawns due to leptospirosis.
• Serological surveillance of feral hogs has shown an 80% exposure rate to leptospirosis and 12% of the titers were high enough to indicate active infection.

• The serovars represented in order of decreasing occurrence were:
  - L. bratislava
  - L. pomona
  - L. icterohemorrhagica
  - L. hardjo
  - L. grippotyphosa
  - L. canicola
Trichinosis
• Causative agents are *Trichinella spiralis* and, rarely, *Trichinella pseudospiralis*

• Small (1.4-4mm) nematode which encyst in the sarcoplasm of muscle cells

• Killed by freezing (63 hr. in standard freezer) and cooking to 140° F. Variable susceptibility to drying and curing based on process.

• *Trichinella britovi* is found in wild boar in Europe and is very resistant to freezing.
• Feral hogs contract the parasite from eating infected meat in garbage, eating infected mice and rats, cannibalism, and eating feces from other pigs that have recently eaten infected meat.
• *T. spiralis* is present in both domestic and sylvatic life cycles.
• Signs in humans include the following:
  • Enteral phase (12-48 hrs. post ingestion).
    • Diarrhea, nausea, vomiting and malaise
  • Migratory phase (2-6 weeks post ingestion).
    • Edema of hands and face, conjunctivitis, petechial hemorrhage of nailbeds, ataxia, dysphagia, fever, myalgia, myositis, arthritis, headache, vertigo, convulsions, and symptoms consistent with myocarditis and neuritis.
  • Parenteral phase (6 weeks-10 years)
    • Weight loss, depression, fatigue, psychological effects.