Disease Concerns Surrounding Feral Hogs

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Some of the Basics

*Disease
*Reservoir
*Endemic
*Zoonotic
*Exotic
*Host resistance
*Special Biological Agent
*Sero-convert

Modes of Transmission

*Venereal/Sexual

*Nose-To-Nose

*Bodily fluids and/or tissues

*Aerosols/Airborne

*Ingestion/ Inhalation

*Insects/Ticks/Fleas

Disease Origins

Most are of viral or bacterial in origin.

There are about 70 known zoonotic diseases in TX.

*Bacterial – most treated with antibiotics or prevented with vaccines

*Viral – no available vaccine for most; prevent with vaccines.

Anthrax

*Endemic to TX (Del Rio to north of San Angelo)

*Observed from June-September after wet spring and dry summer

*Mentioned in the Bible by Moses

*All modes of transmission

*DRT

*Can and does remain active in the soil

Anthrax, cont…

*Special Biological Agent

*Reportable Disease

*72 hour window – Must treat aggressively (Tetracycline)

*Prevent/control with live vaccine (will take 10 days to 2 weeks to be effective)

*Burn in place or bury to minimum of 6 feet!!

*Prevent scavenging (10 % Formalin)

*In excess of 70% death loss

*Widest host distribution of any disease

Brucellosis

*7 strains of Brucella

*Select Agent

*Vaccinate to prevent in all species but swine

*Zoonotic – chronic flu-like symptoms

- treat with antibiotics.

*Cattle are dead end host

*Endemic and Para acute in swine

*Reproductive disease in primary host with multiple modes of transmission

*Not in the meat!!!

Tuberculosis

*3 etiologic agents

*Not a select agent; Zoonotic

*Modes of transmission is airborne, bodily contact, and contact with infected tissues and fluids

*Problem in WTD in MN & MI

*Typically found in the predator/prey relationships among wildlife species

*Reportable regulatory disease

*no vaccines for animals; diagnose with hyper-sensitive test

- treat with antibiotics in humans.

Tularemia

*Rabbit or Deer Fly fever

*Zoonotic, select agent

*Lagomorph host (rabbits & hares)

*Endemic to TX

*Common in people prior to WWII

*Humans die if left untreated; non-descript symptoms

*Treat with antibiotics

Lyme Disease

*Lyme, CT in the 1970s

*Tick transmitted typically in the mouse/deer cycle

*Zoonotic

*Endemic to TX (more in the eastern 1/3 of TX)

*Not typically a disease problem in most wildlife

Leptospirosis

*Zoonotic and can affect all mammals

*Rat urine contamination in water and food

*Problem with the kidneys

- tissues will turn yellow

Salmonellosis

*Called Parathyroid, Enteric Epizootic Typhoid

*Progressive diarrhea

*Fecal contamination of food and water

*zoonotic; cause disease in all birds and mammals

*Does not affect adults as severely as young

*Destroys lining in the alimentary canal

Foot and Mouth Disease

*Not zoonotic; transmissible to all cloven-hoofed animals

*Select agent; FAD

*Last in US in 1924 CA

- entered country through garbage

*Spreads quickly in swine – hard to eradicate disease

*Many symptoms and is highly fatal

*Modes of Transmission include: bodily contact, airborne, bodily excretions, and fomites

African Swine Fever

*3 different disease strains (all viral)
*Contagious and highly transmissible
- almost 100% fatal
*140 days in the meat
*FAD in Swine
*No treatment or vaccine
- prevention through controlling ticks and fleas
*Not Zoonotic
*Modes of Transmission include: ticks, fleas, fomites, and body parts

Classical Swine Fever - Cholera

*FAD now – declared eradicated from the US in 1978

*Sow mortality almost 100% - chronic/latent in others

*In refrigerated meat for very long time

*Death and viral shedding in 10-20 days

*Sero-conversions in 2-3 weeks

*Zoonotic

*Introduced to new area by garbage

*Modified Live Virus Vaccine

Pseudorabies (PRV)

*First found in cattle and dogs

*Not zoonotic

*Eliminated from domestic swine herds in 2004

*All mammals susceptible except Hominids

*Great concern for companion animals

Why don’t we control feral hogs with the controlled released of a disease? Cholera?

*Nothing is a controlled release

*Not all individuals are susceptible

How many diseases can feral hogs carry? Parasites?

*31 different diseases

*47 different parasites

Recent Research

*Brucella suis – 14% (range 0-53%)

*Pseudorabies (PRV) – 21% (range 0-61%)

*Why continue testing? sero-conversions.

Why is *Brucella suis* and PRV a primary concern with livestock producers?

How do we minimize infection/contamination?

*Wear protective gear.

*Minimize contact with bodily tissues (placenta)

*Cook meat to a minimum of 160°F

*Know disease prevalence/possibilities in area

*Minimize/limit insects, fleas, ticks

Be aware but not afraid!!

Questions?