Swine Diseases and Parasites

Causes of Diseases

- Bacterial
- Viral
- Nutritional
- Genetic
- Unknown

Common bacterial diseases

- Atrophic Rhinitis (AR)
- Caused by Bordetella bronchiseptica
- Destroys the nasal turbinates
- Mortality is low
- Significantly affects growth rate and feed efficiency

Atrophic Rhinitis (AR)

- Symptoms in baby pigs include sneezing and discharges of the eyes and nose
- A distorted (twisted) snout is a later symptom
- http://vetmed.iastate.edu/vdpam/new-vdpam-employees/food-supply-veterinary-medicine/swine/swine-diseases/atrophic-rhinitis-pro

AR Prevention and Treatment

- Vaccines are available to prevent AR.
- Sows are vaccinated before farrowing
- Use of SPF (Specific Pathogen Free) breeding stock is an approach to preventing AR
- Sulfa drugs, such as CSP-250 are the most effective treatment

E. Coli scours

- Also referred to as baby pig scours or white scours or bacterial enteritis
- E. coli is a highly contagious disease caused by several strains of E. coli bacteria.
- Usually affects the newborn pig within the first week of life.
- Mortality may be high

E. Coli Continued

- Preventive steps include: sanitation, proper sow nutrition and vaccination
- Commercial vaccines as well as autogenous vaccines are effective
- Antibiotic treatment should be administered orally to be effective

Edema

- Also known as gut edema or E. coli enterotoxemia
- Generally occurs soon after weaning
- Sudden death is usually the first noticeable symptom.
- Other symptoms include swollen eye lids and convulsions

Edema continued

- No effective vaccine available
- Treatment generally includes: withholding feed for 24 hours; adding whole oats to the diet; adding or changing antibiotic

Swine Dysentery

- Also referred to as bloody scours or vibrionic dysentery
- Caused by Treponema hyodysenteria
- Generally affects pigs 8-14 weeks of age
- Highly contagious
- Mortality is moderate (30%)
- Reduces overall performance

Bloody scours continued

- There is no effective vaccine available
- Treatment includes the use of antibiotics
- Carbadox (Mecadox) and Lincomycin are two drugs of choice

Erysipelas

- Caused by Erysipelothrix rhusiopathiae
- Occurs in acute, mild and chronic forms.
- Chronic erysipelas causes lameness in G-F swine due to arthritis.
- Effective vaccines are available.
- Pigs are usually vaccinated at 8-10 weeks of age.

Erysipelas

- Disease is found in the tonsils and is passed in the feces of sick and carrier animals
- Seen more in hogs raised on dirt
- Those infected with have red skin blotches, purplish tails and ears, reluctant to get up and move, and depression

Brucellosis

- Caused by Brucella suis.
- Usually spread by ingesting the organism
- Causes abortion and sterility or reduced fertility in boars
- No vaccine available
- No effective treatment
- Prevent by using disease free breeding stock

Leptospirosis

- Caused by five different strains:
- L. pomona
- L. grippotyphosa
- L. canicola
- L. icterohemorragiae
- L. harjo
- L. bratislava

Leptospirosis

- Results in abortion, stillbirths and weak pigs at birth
- Prevention includes vaccinating the breeding herd every 6 months
- Disease is transferred by contact with urine of sick and carrier animals

Mycoplasma

- A bacteria that causes both arthritis and pneumonia in growing-finishing pigs
- Mycoplasma hyorhinis and Mycoplasma hyosynoviae cause arthritis
- Mycoplasma hyopneumoniae causes pneumonia
- Most swine herds are infected with mycoplasma

Mycoplasma Continued

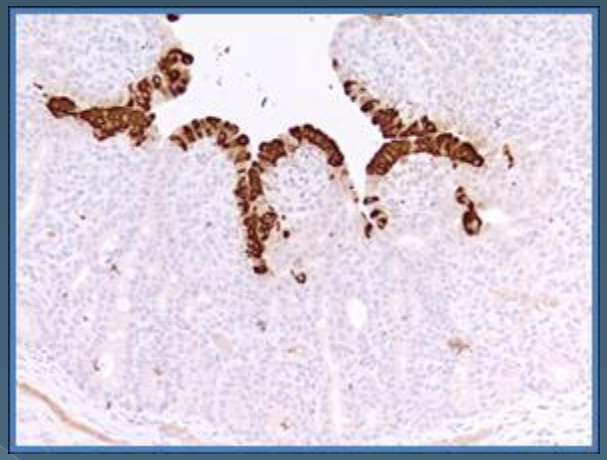
- Vaccines are available; however effectiveness is variable
- Lincomycin seems to be an effective treatment
- SPF stock are mycoplasma free

Porcine Pleuropneumonia

- Formerly called Haemophilus pleuropneumonia (HPP)
- Caused by the bacteria Actinobacillus plesropneumoniae.
- Often fatal-usually affets finishing hogs.
- Treat with an antibiotic/Prevent: AIAO

Transmissible Gastroenteritis (TGE)

- High mortality in new born pigs
- Affect all ages of swine
- Symptoms include: vomiting, diarrhea and death
- Often referred to as "Winter-time Disease"



TGE Continued

- Vaccines are available
- Exposure of gestating swine to the disease prior to farrowing will result in immunity
- No effective treatment
- TGE recovered sows should be kept for breeding

Pseudorabies (PRV)

- Also known as Aujeszky's Disease
- Acute, frequently fatal disease affecting most species of animals, except humans
- Caused by a Herpes virus
- Spread mainly by direct contact with nose and mouth
- High mortality in baby pigs
- Affects all ages
- Causes abortion, stillborns, etc.
- No effective treatment

PRV continued

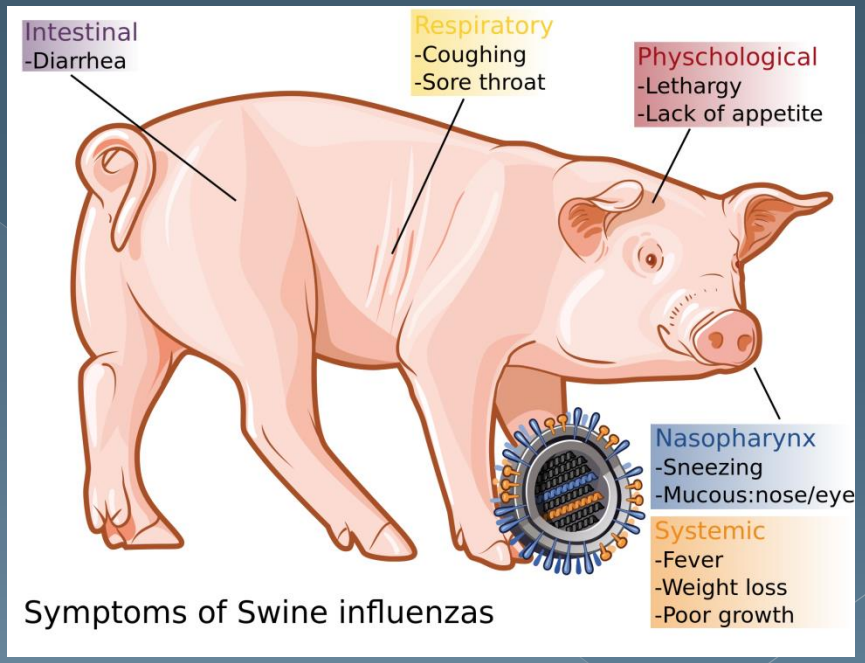
- PRV is also referred to as Aujeszky's disease (mad itch)
- Vaccines are available; however, Missouri producers cannot use the vaccine unless approved by the State Veterinarian
- Only PRV infected herds quarantined by the State Veterinarian are vaccinated in MO.

Parvovirus

- Causes reproductive problems including abortions, stillborns, small litters, infertility, etcetera
- Sows can be vaccinated
- Control is by vaccination and/or exposure of gilts to manure of boars or cull sows one month before breeding
- Formerly referred to as SMEDI (a complex of disease symptoms; stillborn, mummified, embryonic death and infertility)

Swine Influenza (Flu)

- A respiratory disease caused by a combination of a virus and a bacteria
- Symptoms include fever, coughing and off feed for several days
- Producers often provide pigs with an antibiotic to prevent secondary infections
- Outbreaks often occur when pigs are moved or co-mingled (ex. Shows)



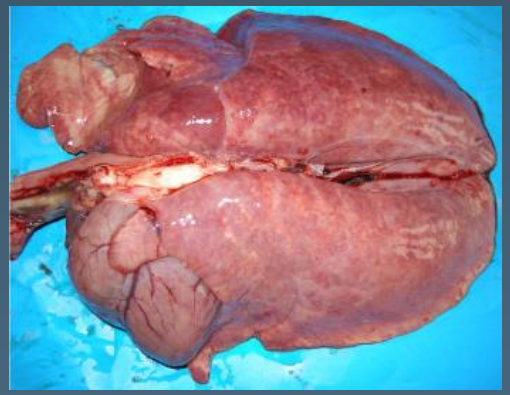
Symptoms of Swine influenzas

Porcine Stress Syndrome (PSS)

- Symptoms include nervousness, tail twitching and muscle tremors
- Death may occur as a result of handling due to poor blood circulation and respiratory failure
- PSS animals are generally heavy muscled
- PSS is an inherited condition caused by recessive genes
- Prevention or elimination of the disease is through rigid selection against the recessive genes
- Halothane test

Actinobacillus Pleuropneumonia (APP)

- Formally known as Hemophilus Pleuropneumonia
- Severe, often fatal pneumonia of growing-finishing pigs
- Pigs of all ages are susceptible but most commonly growing pigs 40 lbs to market weight
- Sudden death of apparently healthy pigs may be a sign
- Infected pigs have labored breathing, high fever (104-107), depression, and reluctant to move
- Antibiotics and vaccines are used to treat and control



Anemia

- Iron deficiency
- Piglets are given iron at birth but as they age, they need more iron for hemoglobin to carry oxygen throughout their larger bodies
- Signs include
  - pale skin
  - mucous mouth, such as the lining of the mouth
  - unthrifty appearance with rough hair coats
  - rapid labored breathing
  - uneven growth
- To prevent, piglet routinely given injectable or oral iron preparations soon after birth

Exudative Epidermitis

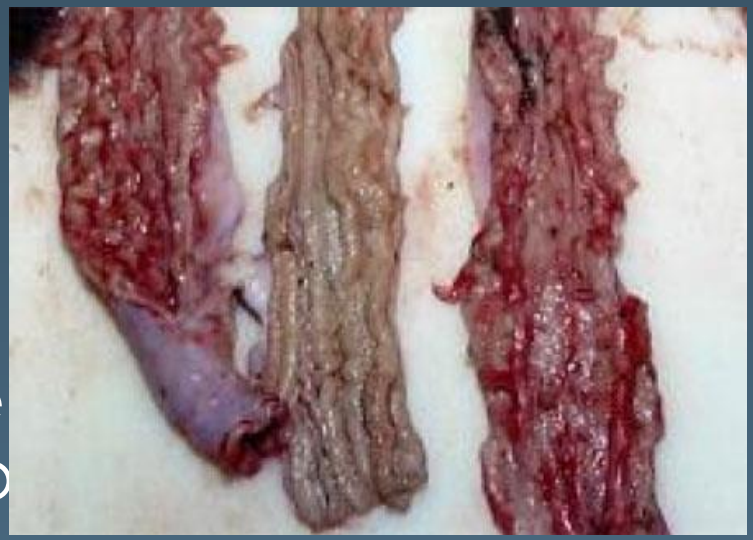
- Aka "Greasy Pig Disease"
- Affected pigs develop areas of brown debris on the skin starting on head and neck
- Bacterial infection caused by Staphylococcus Hyicus
- Most common in nursery pigs
- Pigs usually die from dehydration
- Treatment is by antibiotics and spraying with diluted disinfectants.
- Control by: minimizing skin abrasions/wounds, reducing relative humidity, and insuring adequate availability of water

Haemophilus Parasuis

- Aka Glasser's Disease
- Bacterial infection which affects the chest and abdominal body cavity
- Often in pig from 2-16 weeks old after a period of stress (weaning/moving)
- Signs include high fever, panting respirations and coughing. May have tremors or convulsions
- If one in the group is infected, vaccinate all.

Ileitis

- Lawsonia Intracellularis bacteria infect the cells of the intestinal tract wall causing it to thicken
- Diarrhea is produces can be seen in pigs from weaning to market weight
- Heavier hogs may die suddenly but most experience chronic diarrhea and weight loss
- No vaccine but antibiotics in feed can be used to treat



PRRS

- Porcine Reproductive and Respiratory Syndrome
- Caused by a virus
- In pregnant sows, it is responsible for premature farrowing, stillborn, and mummified fetuses; causes poor conception rates
- In growing pigs, leads to respiratory problems
- Transmission is by close contact
- There are several vaccines but 100s of stands, therefore special management efforts is also needed to protect your herd

Streptococcus Suis

- Strep suis is a bacterial infection carried in the nose and tonsils; often acquired by piglets during farrowing
- After stress, organisms spread from tonsils to other body parts
- Vaccines are available to prevent future outbreaks

Internal Parasites

	Pigs in which major reproducing popul. Is found	Specific ways in which parasited damage their hosts
Threadworm	10-20 day old pigs Breeding stock	Causes moderate – severe – bloody diarrhea in young pigs, may result in mortalities
Large roundworm	Weanlings Feeder pigs, 40-75 lbs	Migrating larva damage liver, lungs, and causes diaffhea, and blocks intestines
Whipworm	40-85 lb	Ulcerate the cecum and anterior large intestine. Provoke bloody diarrhea
Nodular Worm	All ages, 60-350 lbs	Results in nodule formation, which decreases digestive efficiency
Stomach Worm	All ages, 60-350 lbs	Irritates lining of the stomach or tunnels beneath it and causes inflammation and ulceration
Lung worm	Generally feeder pigs and older 60-150 lb pigs	Irritates the fine air passages, ruptures tissues, causes bleeding, and allows development of pneumonia
Kidney worm	Generally older hogs and	Damages liver, perirenal tissues,

External Parasites

- Lice (hog louse)
- Are blood suckers. Approximately ¼" long
- Result in economic loss due to reduced performance
- Control by use of insecticides
- Insecticides available as a spray, pour-on, dust, granule or injectible

Mange

- Caused by microscopic mites that burrow beneath the skin.
- Causes severe itching
- Will reduce swine performance
- Control by the use of insecticides.
- Ivermectin is the insecticide of choice