Diseases and Parasites of Swine

Goal of producers should be to prevent rather than treat diseases.

Causes of Swine 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

AR continued

- Symptoms in baby pigs include sneezing and discharges of the eyes and nose
- A distorted (twisted) snout is a later symptom

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.

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 continued

- Results in abortion, stillborns and weak pigs at birth
- Prevention includes vaccinating the breeding herd every 6 months

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

Common viral diseases

- 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)

- Caused by a Herpes virus
- Affects the CNS
- 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
- No effective treatment
- 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
- Vaccine available. ?? Effectiveness.
- Producers often provide pigs with an antibiotic to prevent secondary infections

Genetic Related Disease

- 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 continued

- 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

Nutrition Related Disease

- Anemia
- Confinement raised pigs need a supplemental source of iron to prevent anemia

Unknown Causes of Swine Diseases

- Mastitis, Metritis and Agalactia (MMA)
- Results in death of newborn pigs due to starvation
- Disease may be present at parturition or may appear several days after birth
- Bacteria, hormone imbalance and stress are all thought to contribute to MMA

MMA continued

- Treatment may include the use of the hormone oxytocin “PoP” to stimulate milk letdown
- Sows may also be given an antibiotic

Internal Parasites

- The large roundworm (ascarid) is the most common internal parasite of swine
- Other roundworms include: stomach worms, intestinal treadworms, kidney worms, lungworms and nodular worms
- Symptoms of worm infestation include: poor growth, thin rough hair coat, diarrhea and coughing

Internal parasites continued

- Ascarid migration increases susceptibility to pneumonia
- Ascarid migration results in white spots in the liver
- Worms can be controlled by the use of anthelmintics and good sanitation

Common vs Technical Terms for Internal Parasites

- Large roundworms = Ascarid
- Stomach worms = Hydrostrongylus
- Intestinal treadworms = Strongyloides
- Kidney worms = Stephanurus
- Lungworms = Metastrongylus
- Nodular worms = Oesophagostomum
- Whipworms = Trichurus

Internal parasites continued

- Some common dewormers include:
- Atgard = Dichlorvos (feed)
- Banminth = Pyrantel Tartrate (feed)
- Tramisol = Levamisole (feed or water)
- Ivermectin = Ivomec (injectable

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