Skin Disease
What you will learn in this session:

- What skin conditions exist in pigs in Australia.
- How they impact on the health, welfare & performance of the pigs & the herd.
- How to diagnose them.
- How to treat them.
- How to minimise their impact on-farm.
Skin as a diagnostic indicator

- Septicaemia-non-specific sign
- Pallor-anaemia, blood loss
- Jaundice
- “Dermatitis”-Allergy (straw, mosquitoes, mange)
Jaundice-PMWS
Will the real mange please stand up!

Skin lesion grade 2. This would not incur a penalty and once in the chiller for a while will merge in with the background skin. This is an Eco pig skin lesion not due to Sarcoptic mange.

Extensive belly trim due to sarcoptic mange. Weight loss no grading penalty.
Skin diseases of young pigs

- Greasy pig (exudative epidermitis)
- Bite wounds
- Swine pox
- Pityriasis rosea
- Ringworm
Greasy pig

- Staph hyicus - Culture to diagnose
- Results from skin abrasions
- Treat with Penicillin & anti-inflammatory
Chronic greasy pig disease
Bite wounds

• To clip teeth or not to clip teeth? - that is the question!
Swine pox

- Uncommon - DDx for greasy pig
- Thought to be spread by biting insects (lice, mosquitoes)
- Clean & disinfect wounds
Pityriasis rosea

- Genetic, red, raised whorls on belly
- DDx ringworm
- goes away
- do nothing
Ringworm

- Microsporum spp & Trichophyton spp
- DDx pityriasis
- Diagnosis-demo of spores on skin scrapings
- Treatment-iodine may help
“Diamond skin disease” - Erysipelothrix rhusiopathiae

- *Erysipelothrix rhusiopathiae*
- Septicemia - Fever with diamond skin lesions
- Sudden death
- Arthritis
- Heart valve lesions
- Abortions
Infectious arthritis
Pathogenesis

- 30-50% of pigs carry the organism - tonsils
- 26 serotypes
- 80% of isolates are serovars 1 or 2
- Predisposing cause - environmental stresses
  - Fatigue
  - Nutrition changes
  - Temperature
  - Failure to vaccinate
Erysipelas

- Long survival in the soil (esp ecoshelters with dirt floors).
- Entry via GI tract or tonsil
- Septicaemic within 7 days and localisation in skin, joints, heart.
- Peracute deaths observed, abortion
- Acute skin lesions evident, also synovitis
- Dx: signs & culture
- Zoonosis
Erysipelas treatment

- Penicillin by injection to sick pigs.
- Anti-inflammatory for the arthritic pain.
- Amoxycillin, tylosin, tetracycline in water for 3 days. May need to increase dose to compensate for poor consumption (e.g. Amoxycillin 10-30mg/kg).
- Strategic use of in-feed medication.
- Consider vaccination of progeny.
- Always vaccinate sows.
- Re-infection a problem (esp. ecoshelters)
Vaccination

- Vaccination will protect for 6 months
- Made from serovar 2
- Vaccinate replacements pre-mating (2 shots, 4 weeks apart).
- Re-vaccinate 2 weeks pre-farrowing.
- Progeny-consider vaccination if recurrent outbreaks.
- CSL and Intervet products.
What's your diagnosis?

• 6 week old pigs weaned at 3 weeks of age into a wheat bedded ecoshelter.
• High health status herd, weaner feed contains 200ppm of tetracycline for control of Glassers and Ileitis
• 10% of pigs affected over the last week with skin lesions.
What are your differential diagnoses, confirmatory tests, treatment and prevention?
Differentials

- *Greasy pig (exudative epidermitis)*
- *Erysipelas (diamond skin disease)*
- *Swine pox*
- *Allergy to straw or mosquitoes*
- *Pityriasis rosea*
- *Ringworm*
How would you make the diagnosis?

- Response to antibiotics + anti-inflammatory (greasy pig & erysipelas)
- Collect a swab from under a crust for culture (greasy pig, erysipelas)
- Ringworm-fungal culture; demonstration of fungal spores
- Swinepox, allergies-histo
Zinc deficiency Skin

- Uncommon now-Zinc left out of premix or Ca competes
- Need Zn at 100 ppm (decr synthesis of fatty acids mediated by Zinc)
- Thickened skin, subacute inflammatory change, incomplete keratinisation
- DDx: mange
- Dx: serum Zn, Histopath, response to Zn
- Rx: restore Zn
Dermal sensitivity ("scald")

- Lincocin, DMZ, Tylosin
- Irritant principle "toxic" in low concentrations
- See scald on HQs, rectal oedema
- Rx: clean, decrease stocking rate, remove drug
Scald
Scald
PDNS-Porcine Dermatitis Nephropathy Syndrome

- Immune system “out of whack”
- Triggers-Circovirus, mosquitoes
- Affects mainly growers
- Erythema macules, haemorrhagic papules; thick necrotic crusts around the head, lower limbs
- Glomerulonephritis
- Oedema to lower limbs
- Poor prognosis in severe cases
Acute PDNS
**Mange: Sarcoptes scabei var suis**

- Very common, ADG by 5-10g/d, pigs rub
- Encrustation in ear, skin thickens
- Dermatitis evident at slaughter
- Mites burrow into skin inside the EAR...lay eggs which hatch and larvae mature in about 10-14 days
- Mites don’t survive off host
- Diagnosis: Examine ear wax; skin scrapings may be negative
Control

- **Products:**
  - Injections - Dectomax; Ivomectin
  - Pour-ons - Taktic
  - Sprays - Taktic EC
- **Control if you must:** treat sows pre-farrowing & piglets at weaning
- **Aim for eradication**
Eradication

- Treat every pig with Ivomec (2x, 14-21 days apart) or Dectomax (1x)
- Take care to dose to largest pig
- Care with Dectomax withhold-may use spray in pre-sale pigs + AIAO
- Purchase mange-free replacements
Mange eradication team
Calibrate your scales & weigh the heaviest pig in the pen.
Inject all pigs
Inject piglets at 7 days of age
Take extra care with breeders
## Skin lesions at slaughter—a significant problem!

- **Arthritis**: 1%
- **Dermatitis**: 10%
- **Ileitis**: 0.175%
- **Nephritis**: 5.7%
- **Pneumonia**: 47%
- **Pleurisy**: 21%
- **Pleuropneumonia**: 0.3%
- **Peritonitis**: 1.3%
- **Pericarditis**: 3.3%
Downgrading penalty

- Applies to all carcasses with skin removed
- 6% + trim loss
Dermatitis from bedding in ecoshelter pigs. This can be quite extensive and cosmetically is unattractive. Currently these pigs are not being skinned. Note that the lesion involves the epidermis.
Solutions to down-grading

- Eradicate mange
- Manage ecoshelter bedding correctly
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