LICE

- Order Phthiraptera
  - 5,000 species
- Two main groups
  Anoplura – sucking lice
    - Blood
  Mallophaga – biting lice
    - hair, feather, skin

Sucking louse      Biting louse

LICE

Incomplete metamorphosis

March - 2014
LICE

• Public health
  – Human body louse
  – Human head louse
  – Pubic or crab louse

• Importance
  – Irritation, dermatitis, emotional distress
  – Vector of epidemic typhus, relapsing fever

LICE

• Veterinary health
  – Domestic livestock
  – Companion animals
  – Poultry
  – Wild birds

CATTLE LICE

• Biting lice – Bovicola bovis
• Longnosed – Linognathus vituli
• Little blue – Solenopotes capillatus
• Shortnosed – Haematopinus eurysternus
• Cattle tail – H. quadripertusus
Cattle lice in Montana

Biting louse | Longnosed louse | Little blue louse

Cattle Lice – population peaks

- Long nosed louse
  - Early winter (Oct – Nov)
- Little blue louse
  - Mid winter (Jan - Feb)
- Cattle biting louse
  - Late winter (Feb – March)

Preferred sites on cattle

BL = Chewing lice
LB = Little blue
LN = Longnosed
Impact of lice on cattle

- Feeding and movement by lice causes irritation
  - excessive licking and rubbing
  - intense itching
  - hair loss
  - damage to hide (reduce leather quality)
  - damage to livestock facilities
  - affect overall vitality of host
- Sucking lice decrease weight gains and milk production
- Anemic conditions - low rbc's
- Lab vector of pox virus, Anaplasma, tularemia, ringworm

Cattle lice management

- High energy diets to avoid stress
- Identify and cull carrier animals
- Insecticides
  - Variety of application methods
  - Dust bags
  - Backrubbers
  - Pour-ons
  - Injections
  - Ear tags

Cattle lice control

- Fall/early winter is the best time to treat
- Pyrethroid insecticides
  - Do not kill eggs
  - Require 2 applications, 10 – 14 days apart
- Avermectins (ivermectin, et al.)
  - Systemic insecticide
  - Pour-ons very effective
  - Injectable does not control biting lice and generally requires late season treatment
**Late season lice control**

- Recommend a non-systemic pour-on or dust
  - Pour-on
    - Pyrethroid
    - Both species are susceptible but not eggs
    - 2 applications, 10 – 14 days apart
  - Dustbags
    - Pyrethroid, OP
    - Daily use
- Avoid systemics ???
  - Grub-parasite reaction

**LIVESTOCK LICE**

- Horse
  - Horse biting louse – *B. equi*
  - Horse sucking louse – *H. asini*
  - Not as common as cattle lice
- Sheep & goats
  - African blue louse – *L. africanus*
  - Sheep biting louse – *B. ovis*

**African blue louse, *L. africanus***

- Skin irritation
- Feeding results in blood-stained wool
- Scouring doesn’t remove blood stains
- Pulled out and thrown away
**African blue louse, *L. africanus***

- Anemia and edema of legs
- Wool slips from the skin
- Increased shearing time (20%)

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**Recommended for Lice on Livestock**

**Clean-up™**

- Permethrin (5%) + diflubenzuron (5%)
- Oil-based pour-on
- Currently registered for cattle and horses
- KMG-Bernuth adding sheep to label?
- Other products for horses
  - Synergized pyrethroid wipes and sprays

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**Canine Lice**

- Dog biting louse – head, neck and tail
- Dog sucking louse – head and neck
- Ectoparasites of dogs and wild canids (coyotes, foxes, wolves)
- Treatment
  - Contact: Pyrethroid shampoos, wipes, ProMeris (biting lice)
  - Systemic: Revolution – selamectin (similar to ivermectin)
Lice of poultry and other birds

- Chicken body louse – *Menacanthus stramineus*
- Shaft louse – *Menopon gallinae*
- Chicken head louse – *Cuclatogaster heterographus*