Arthropods Affecting Sheep

Sheep lice
Louse flies or keds
Sheep nasal bots
Biting midges

LOUSE FLIES & KEDS
Louse flies, bird flies, keds, “ticks”
Obligate, blood-feeding ectoparasites
Winged and wingless species
150 species all parasitic, ¾ on birds

LOUSE FLIES & KEDS
HIPPOBOSCIDA
- Melophagus ovinus – sheep ked
- Hippobosca equina – horse ked
- Lipoptena spp. – deer ked, elk ked
- Pseudolynchia canariensis – pigeon fly
**SHEEP KED** *Melophagus ovinus*

- Mouthparts directed forward
- Abdominal integument is flexible
- Legs robust, tarsal claws
- Compound eyes poorly developed
- Mouthparts are muscid type (piercing sucking)
- Wings absent

**SHEEP KED**

Complete Metamorphosis

- Larviparous
- 3rd stage larva cemented to wool & forms hard puparia.
- Adult emerges in 2 to 5 weeks, lives 4 mo.
Arthropods Affecting Sheep

**SHEEP KED**

- Dispersal facilitated by herd contact
- Engorged female lives 8 days off host, unengorged 4 days
- Populations highest in winter & spring lowest in summer

**SHEEP KED**

Veterinary Importance

- Annual losses of ~ $40 million
- 8% reduction in weight gain
- 15% reduction in wool production
- 30% reduction in value of sheep skins
- "backloss" sheep roll on their backs to relieve irritation
- Not a disease vector

**Sheep Ked, Melophagus ovinus**

- Feeding causes cockle
  - Dense nodule in hide will not accept dye
  - Losses to leather/garment suede industry

- Lower quality of clean wool
  - Poor color and texture
  - $0.15 - 0.20 deduction per lb
SHEEP KED

MANAGEMENT

- Shearing
  - prior to lambing can reduce ked populations by 75%
- Insecticides
  - Dusts
  - Low volume sprays
  - Pour-ons
  - Ear tags

SHEEP BOT FLY

- Myiasis – Invasion of living vertebrate tissue by fly larvae

- Three types of myiasis
  - Accidental – ingestion of eggs/larvae
  - Facultative – either free-living or parasites
  - Obligatory – always parasitic, require a living host
Sheep Bot Fly

*Oestrus ovis*

Worldwide pest of sheep and goats

Larvae (head grubs)
- Deposited near nostrils
- Enter nasal passages
- Feed on mucosa

Sheep Bot Fly

**Veterinary Importance**
- Weight gains reduced 4%
- Bacterial infections
- Head shaking, restlessness
- Snotty nose
- Erosion of nasal structures
Sheep Bot Fly

Treatment
Oramec (Ivomec) administered
as an oral drench