

# Skin Infections of Particular Concern to 4-H Calves: Ringworm, Warts and Lice

Information compiled by the Calf Health Team including: Dr's Tim Henshaw (Eastgen), Christie Morrow (Heartland Veterinary Services), Rex Crawford (Dufferin Veterinary Services and Ann Godkin (OMAFRA Veterinary Science and Policy).

Calves are susceptible to becoming infected and showing visible signs of ringworm and warts, or infested with lice. The two skin infections and the skin parasite may be more common among calves that undergo handling, movement and mixing associated with their involvement in calf club projects. 4-H participants and leaders need to be well informed about these diseases and infestations.

## Ringworm

- **Cause:** fungus that invades hair, hair follicles and the surrounding skin. Produces spores.
- **Spread:** Highly contagious - can spread calf to calf
- **Zoonotic** , meaning it can spread to humans
- Spreads by direct contact or indirectly by carriage on equipment such as clippers, brushes, halters, etc.
- Irritated skin caused by halter or rope rubbing, manger edge rubbing, excessive washing or strong soaps, clipping or grooming, may be more susceptible to infection
- More prevalent when overcrowding, inadequate nutrition or other concurrent health problems (such as pneumonia) occur
- Spore and fungus survival and spread more likely in a warm, moist (humid) environment such as over crowded calf pens and pens with moist bedding.
- Survival is reduced with increased air movement (drying) and sunlight
- Recovery can take up to 4 months
- **Impact:**
  - Visibly unappealing
  - Can permanently scar skin and hides
  - Associated with reduced growth rates
- **How to recognize**
  - Skin lesions
  - Patches of hair loss with white/grey scabs in a circle
  - White skin areas may show pink rings before hair loss
  - Can be one patch or several; usually on head or neck but can be anywhere



*Calf with multiple ringworm lesions on head*



*Calf with ringworm lesions on head*

## Warts

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- **Cause:** viral infection, a papilloma virus (BPV 1)
- **Spread:** Highly contagious – can spread calf to calf
- Not contagious to humans
- BPV-1 can infect horses and lead to the development of benign tumours known as sarcoids.
- Virus spreads by direct contact or indirectly by carriage on objects (e.g. grooming tools) and possibly insects.
- Virus enters the skin via tiny skin abrasions.
- Virus multiplies only in skin cells. Survives a long time in the environment.
- Warts appear up to 2 months after exposure.
- As warts can continue to appear over months calves need to be carefully examined frequently to identify new warts.
- **How to recognize**
  - Typically found on the head, neck and shoulders of calves.
  - May appear as a simple raised hairless bump, or “cauliflower-like”, or pedunculated (above the skin on a short stalk).
  - Can be single or multiple.
- **Impact:** visible indication of infection



*Warts around a calf's eye*



*Warts on the tail head of a calf – an unusual location*

## Lice

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- **Cause:** infestation with a wingless, flattened insect
- Different types, one type feeds off blood
- **Spread:** by direct contact and contaminated objects
- **How to recognize**
  - Causes irritation of the skin , hair loss
  - Itchy - calves bite, scratch and rub at themselves
  - Unthrifty general appearance
- **Impact:**
  - Anemia, lower production
  - Irritating to the calf
  - Unthrifty appearance



*Sucking louse*



*Lice on the skin of a calf*

# Guidelines for Leaders, Participants and Veterinarians

## Judging the acceptability of calves for EastGen Youth Programs

Information compiled by the Calf Health Team including: Dr's Tim Henshaw (Eastgen), Christie Morrow (Heartland Veterinary Services), Rex Crawford (Dufferin Veterinary Services and Ann Godkin (OMAFRA Veterinary Science and Policy).

**Participants should bring only healthy calves to a show, clinic or achievement day. The guidelines provide a standard interpretation of what will be considered acceptable and what will not be.**

**Skin lesions are visible indicators of infection. The presence of skin lesions in show calves will impact on acceptance to shows. Contact a veterinarian to identify and treat skin problems and infections well in advance of show or achievement day.**

### **1. No calves with visible warts will be accepted at the show.**

Why aren't calves with any warts allowed in shows?

Visible warts are aesthetically unpleasing. The virus that causes warts is contagious to other cattle.

#### **Rationale:**

- Warts can easily be removed by a veterinarian and removal sites heal quickly
- Participants and calf owners are responsible for inspecting calves frequently to identify warts on calves as soon as possible.
- Participants and calf owners are responsible for seeking veterinary advice or assistance to remove warts at least 3 weeks prior to show dates
- Therefore, calves with any visible warts will not be allowed on the show grounds.

### **2. Some calves may be accepted in spite of having had ringworm.**

Why aren't calves with ringworm allowed in shows?

Visible ringworm is aesthetically unpleasing. Active ringworm is contagious to other cattle and to people.

Why are some calves accepted and others not allowed in shows?

#### **Rationale:**

- Ringworm, even with effective treatment, takes a long time to completely heal. Healed ringworm may leave visible lesions or changes to the hair coat or underlying skin for months even though active infection has ended.
- Information regarding treatments given or tests done on calves (scrapings, cultures etc) will not impact on the decision regarding acceptable vs. unacceptable. Visible lesions on calves are aesthetically unappealing and regardless of other information may prevent the calf from being admitted to shows.

#### **Calves will be accepted if all of the following are true:**

- The lesion is small or moderate in size (< 2.5 cm in diameter).
- The lesion is completely hair covered.
- Discolouration of hair or skin under hair may be present

#### **Calves will NOT be accepted if any of the following are true:**

- Any lesion is greater than 2.5 cm in diameter
- Any part of the lesion is not completely hair covered

# Ringworm: Examples of Acceptable and Unacceptable Skin Lesions on Calves

## ***Acceptable because:***

- Healed
- Hair covered



## ***NOT Acceptable because:***

- Clearly visible
- No hair cover
- Crusty, scabby cover
- More than one lesion
- One lesion is large (greater than 2.5 cm)

