

# OESTRIDS

**Morphology, bionomics, life cycle,  
vector potentiality, pathogenesis &  
control.**

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# OESTRIDS

- common name - Hypoderma ( warble fly)  
Gasterophilus (Bot fly)

Host- Cattle .horses, sheep, goats and man also.

Species- *Hypoderma bovis*  
*Hypodema lineatum.*

Morphology :

Abdominal area of adult is covered with yellow-orange hairs having a broad band of dark hairs in the middle.



# WARBLE FLY

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SOURCE - GOOGLE

*Warble fly*



# WARBLE FLY



# BOT FLY



# BOT FLY

# LIFE CYCLE

- ❑ The female fly laid eggs in the hairs with a characteristics 'Buzzing sound'.
- ❑ After hatching larva come out and penetrate in the hair follicle.
- ❑ Then enter into the inner organ
- ❑ Further migrate in the skin region , where swelling occurs.
- ❑ The swelling perforate in the centre , called 'Warble'
- ❑ The larva fall on the ground and transformed into pupa then adult fly.

## Life Cycle of Common Horse Botfly



# LIFE CYCLE OF BOT FLY

# PATHOGENESIS

- ❑ The affected animal become restless.
- ❑ Reduction in milk production in milch animals.
- ❑ Formation of 'Warble' under the skin.
- ❑.Due to perforation of skin hide quality deteriorate .
- ❑ Trimming of flesh produce greenish gelatinous jelly material called 'Butcher's jelly'



# WARBLE



# WARBLE IN CAT



# BUTCHER'S JELLY IN FLESH

# PREVENTION & CONTROL

- ❑ Squeezing of larva from the warble or wound .
- ❑ Topical application of insecticide on the warble.
- ❑ Systemic use of oral larvicidal insecticide