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A new calf killer on the horizon

DOUGLAS BRUCE 2021

BVG

What's the problem?

A worm



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Neoscaris vitulorum



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The enemy

- Roundworm-Ascarid
- Latin: *Neoascaris vitulorum*
- Common name:
- Old name: *Toxocara vitulorum*
- Parasitize hosts: cattle, buffalo, bison, other bovids

What's it look like

- Length-up to 40cm long
- Width-7mm wide
- Biggest cattle worm.
- white spaghetti like



Distribution

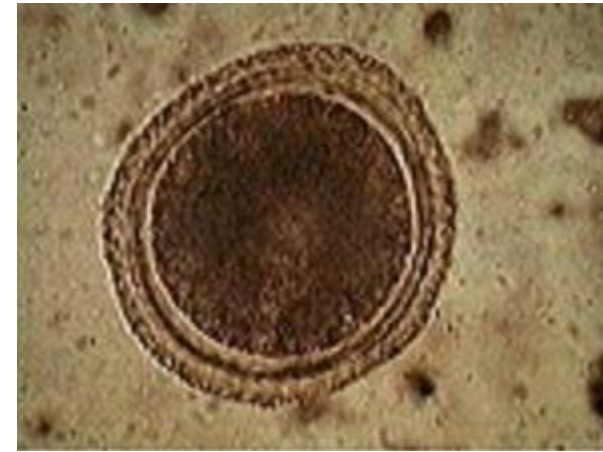
- Worldwide
- Commonly tropics and subtropics
- Adults in the small intestine
- Migrating larva in organs-
lungs, trachea, bronchi, liver, kidneys, udder

Cases seen to date

- Mvurwi
- Headlands
- Mtoroshanga

The eggs

- Lay 8 000 000 eggs daily
- Golf ball like.
- Sensitive to sunlight
- Survive months possibly years in pastures
- 27-30C ideal to develop to larvae.



The cycle

- Eggs are ingested and hatch in small intestine-larvae migrate through gut wall and enter blood then through tissues-liver-lung-trachea-esophagus-back to small intestine and mature to adults and lay eggs. Larvae can enter embryo or mammary tissues and infect the foetus and calves as they drink colostrum and to 3 weeks post partum.

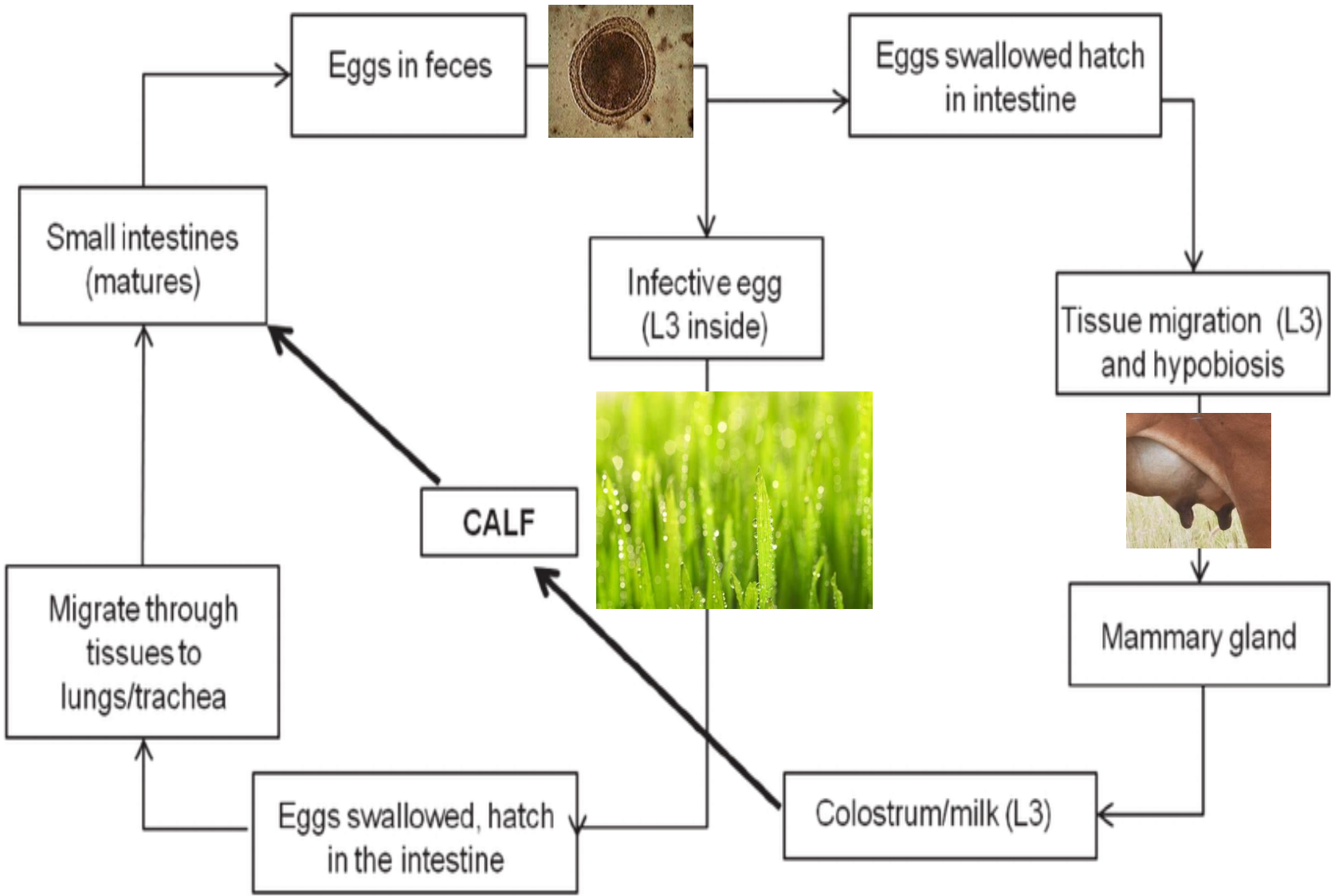
Spread

- Infection by ingestion of larvated eggs (Cows)
- Transmammary Infection, L2 larval stage (Vertical)



CALF

COW



Signs of infection

- Calves infected from milk have adults and shedding from 3 weeks of age.
- Calves up to 3 months shed many eggs.
- Associated with stunted growth, pot bellies, inappetence, mucoid diarrhoea (sometimes with blood), constipation, colic
- Acute death of ill-thrift calves seen.
- High mortality rates in calves[sometimes perforation].
- Adults rarely show symptoms[some can get pneumonia]

Diagnosis

- Fecal Egg Count [FEC]-typical golf ball like eggs visible
- Cows can have dormant tissue forms and may be FEC negative [up to 4 years]-enter colostrum and milk-infect calves
- Post mortem of unthrifty calves.

Effective dewormers

- Benzimidazoles- oxfendazole[Systemex], albendazole[Valbazen, Albex] , fenbendazole[Panacur].
- Macrocyclic lactones-ivermectin, abamectin, moxidectin, doramectin.
- Imidazothiazoles- levamisole [Tramisol]

Treatment Programme

- Early treatment of calves at 3 and 6 weeks to prevent the development of infections and contamination of environment with eggs.
- Treat Cows in last month prior to calving with a Macrocytic Lactone, then calves at 1,2 and again at 3 Months due to risk of reinfection from infected pasture
- NB Continue for 4 years to break Life cycle

References

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Thank you!!



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