Sheep ked

Melophagus ovinus

(the so-called "sheep tick")

Description: flat, leathery, reddish-brown insect about ¼ inch long; resembles a large tick but has only six legs and is a wingless, bloodsucking fly; a noticeable piercing mouthpart projects forward from the head.

Domestic animals affected: sheep (has some success on goats and will occasionally bite people).

Damage caused: blood loss from keds may cause anemia in young lambs and reduced rate of gain in older lambs; keds and their pupae in wool result in "dirty wool" classification; sheep’s immune response to keds reduces capillary flow in skin resulting in reduced quantity and quality of wool; punctures from feeding cause "cockle" and downgrades hide value.

Development: complete metamorphosis: but eggs hatch one at a time and the larva develops through two molts, all within the female; when the third-instar larva has completed growth it is "larviposited" by the female; pupation requires 3 to 6 weeks.

Generational time: about one month to more than two months.

Larviposition site: When the third stage larva is ready to pupate, it is "larviposited" by the female and cemented to the wool.

Adult habitat, feeding: Keds spend all their time on the host; both males and females feed several times daily; if separated from the host they die within four days.

Method of dispersal or infestation: host-to-host contact facilitated by the sheep’s close herding behavior and at breeding and nursing; keds move in great numbers from shorn adults to lambs; some dispersal between herds is via human handlers and on shearing equipment.

Seasonality: numbers are highest during cool weather, especially on previously uninfested sheep that have not yet developed a protective immune response to keds.

For additional information contact:
Ludek Zurek Ph.D.
Medical and Veterinary Entomology
Department of Entomology
Kansas State University
Manhattan KS 66506
(785) 532-4731
lzurek@ksu.edu