

# MITES UNDER CAGES MAY BE HELPFUL IN FLY CONTROL

In the last few years, some mink farmers in western Washington have reported that when kits under two weeks old fall through wire-mesh cage bottoms to the ground they are often attacked by large numbers of tiny reddish "bugs."

These "bugs" crawl under the front and back legs, within the nose, and between skin folds of the kit. When removed, they leave small red spots on the skin. There is usually a good deal of moist bedding and feces under the pens where the "bugs" are found to thrive. Naturally, the mink farmers are concerned that the "bugs" will attack kits in the nestboxes.

We found that these "bugs" were a type of mite. Since it is extremely difficult to distinguish these small creatures, they were sent to an expert, Dr. G. W. Krantz of Oregon State University, for identification. He determined that they were *Macrocheles matrius* Hull, a mite found worldwide in poultry manure and stored grain sievings, and frequently associated with mammals such as rodents. Little is known about this particular species of mite, but it belongs to a group commonly found in feces of cows and other domestic animals.

### Life Cycle of Mites

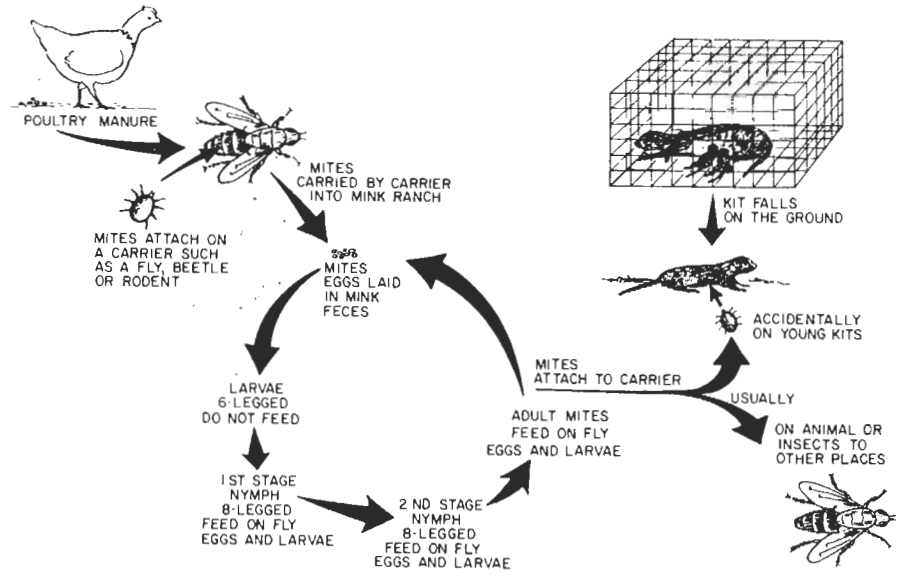
Generally, the life history of this group of mites is as follows:

Mites deposit eggs in feces where they hatch in less than a day into a whitish six-legged form called larva. The larva molt twice through two eight-legged nymphal stages. Finally, the nymph molts to the reddish colored adult — the form that is seen by the mink farmer (see illustration).

Adult mites attach themselves by their mouth-parts to insects such as flies and beetles, or to small animals such as rodents on which they "hitchhike" into new territories. Both nymphal and mature stages of the mites feed on fly eggs and larvae (maggots).

We believe that the mites found on mink kits were not feeding, but merely looking for a free ride to another place. This phenomenon is common.

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Many species of mites and insects utilize other insects or animals as transportation to extend their range if they themselves are too small to move any great distance. The red spots found on the hairless skin of the mink kits are apparently due to irritation caused by pinching of the mite's mouth-parts.

### Flies Are Indicted

The mites probably are introduced to a ranch by flies. Mites become attracted by the ammonia odor of mink feces which offer them an attractive home: Plenty of food in the form of fly eggs and larvae, as well as ample moisture and coolness to prevent desiccation by the sun.

We have no reports of mites entering nestboxes to attack mink. However, since feces in dirty boxes also may attract the mite-carrying flies,

there is a possibility of mites being carried into the boxes. Conversely, the mites might be beneficial on mink ranches because they reduce the filth-fly population. Therefore, one should not consider killing the mites unless something is done about the flies. Otherwise, the fly population might rise quickly and be a problem in itself. We recommend two methods of control:

1) Screen the bottom of mink pens and have a sufficient lip on them, or use small enough gauge mesh so the kits do not fall through the wire onto the ground.

2) Remove feces at frequent intervals in order that both the numbers of mites and filth-flies are reduced at the same time.