

Pest Profile



Photo credit: University of Nebraska-Lincoln (Lecture)

Common Name: Scabies Mite

Scientific Name: *Sarcoptes scabiei var hominis*

Order and Family: Sarcoptiformes, Sarcoptidae

Size and Appearance:

| | Length (mm) | Appearance |
|--------------|---------------------------------------|--|
| Egg | 0.10-0.15 mm | Eggs are oval in shape. |
| Larva | | The larval stage is six-legged and looks like a miniature adult. The larval stage crawls out of the tunnels and onto the surface where it then either burrows into the outer layer of the skin or enters a hair follicle to create a small pocket called the "molting pocket." |
| Nymph | | The nymph is eight-legged and goes through two nymphal stages known as the protonymph and tritonymph. The nymphal stages are pale in color and look like the adult. After two to four days, the protonymph molts into the tritonymph. During the tritonymph stage or second nymphal stage, the mites destined to be females are considerably larger than the males. After two to three days the tritonymphs molt into the adult. |
| Adult | Female: 0.30- 0.45 Male: 0.20-0.25 | The adult male and female mite are pale in color and disk-shaped. On the dorsal side of the mite, there are numerous tiny peg-like spines and a few setae (hair-like structures). On both the top and underside, there are wavy lines that give the body a striated appearance. They have four pairs of cylindrical legs that are divided into five ring-like segments. In females, the first and second pairs of legs have suckers at the end, and the third and fourth have setae at the tips. In the males, the first, second, and fourth pairs of legs have suckers at the end, with the third pair having setae at the end of the legs. There is no distinct head for the adults. The short and fat palps and |

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| | | pincer-like chelicerae that make up the mouth parts protrude forward from the body. |
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Type of feeder (Chewing, sucking, etc.): Chewing mouthparts

Host/s: The hosts for all life stages are humans and other mammals domesticated or wild, including horses, dogs, and pigs. The mites feed off the liquid of the dermal cells they have chewed.

Description of Damage (larvae and adults): The damage or symptoms from scabies mites are caused by the burrowing on the surface of the skin (stratum corneum). Mites can cause scabies rash which is a popular eruption that occurs in areas of the body mainly not infected. These areas include the buttocks and areas around the waist and shoulders; however, the rash can occur on arms, calves and ankles. The scabies rash is an allergic response produce by the mites. A person infected for the first time will usually not have the rash appear until four to six weeks. Unfortunately, those who have been infected before may develop a rash within two to four days. Consequently, this can lead to severe irritation (pruritus), causing severe itching and scratching, especially at night and after hot baths. Frequent scratching can cause secondary bacterial infections, which can be severe and result in boils, pustules, ecthyma, eczema and impetigo contagiosa. Another condition caused by these mites is known as crusted or Norwegian scabies, which highly contagious. This is caused by high populations of mites and the skin becomes scaly and thickened (hyperkeratonic). Crusts begin to form over hands and feet, and scaling eruptions potentially develop on the head, neck and nails. This condition occurs due to loss of immunity, which can allow establishment of large populations of mites.

References:

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