

# Swine Ectoparasite Control

Ectoparasites (parasites that live outside the body) can be damaging to swine, causing unthriftiness and slow weight gains. These pests feed and reproduce on the host animal at the animal's expense. This is extremely hard on young, actively growing pigs. The extra stress associated with a parasite infestation can cause slow weight gains, adding up to more feed required per pound of gain than with a clean pig.

## **Hog Louse (*Haematopinus suis*)**

The hog louse, a blood sucking pest, is the only louse found on swine. The louse is rather broad and about ¼ inch (5-6 mm) long. This makes it one of the largest lice found on domestic animals. The color pattern is grayish-brown with brown to black markings.

The hog louse sometimes has a bluish coloration because of its blood sucking habit. Infestations of this insect often start around the ears (sometimes deep within the canal) and spread, if not controlled, to other areas of the body. Heaviest infestations of hog lice usually occur in winter.

## ***Hog Louse Life Cycle***

The hog louse depends on swine for survival and generally doesn't attack other animals. If a louse becomes dislodged from the pig, it lives for only 2 to 3 days. The adult female attaches her eggs to hair shafts and may lay as many as 90 eggs over a 25-day period. The young lice (nymphs) emerge from the eggs in 12 to 30 days, depending on environmental conditions. The nymphs go through three developmental stages and feed on blood in all three stages before reaching the adult stage. The average lifespan for male and female lice is about 25 days.

## **Hog Mange Mite (*Sarcoptes scabiei suis*)**

Parasitic mites that burrow cause a skin inflammation on domestic animals that is referred to as mange. The most common mite of this type found on swine is the sarcoptic or itch mite. It is the same species of itch mite found on humans but is considered a "variant" adapted to swine. The swine variant does not usually infest humans.

The body of the mite is white to gray, and the adult mite has four pairs of short legs. Initially infestations may be on the inner or outer surface of the ear, around the eyes, or along the top of the neck and shoulders. The infestation eventually spreads over the body if allowed to go unchecked.

## ***Hog Mange Life Cycle***

The entire life cycle of this pest occurs on the pig itself. The life cycle stages are egg, larva, nymph, and adult. If dislodged from the pig, the mites or eggs can survive 2 to 4 weeks if they are in a moist, protected place. But they are sensitive to drying, and if they are exposed to direct sunlight or dry surroundings, they won't survive for more than 24 to 48 hours.

The adult female mite burrows tunnels just beneath the skin surface, where she then deposits her eggs. She may deposit as many as 40 to 60 eggs over a period of about 30 days. The eggs hatch in about 5 days, and the larvae may remain in the parent tunnel or start new tunnels. The cycle from egg to fertilized female takes 10 to 15 days. Many generations of mites may be on one pig.



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## Hog Mange Damage

Mature female mites cause the most damage. This is probably because the female adults are active in egg-laying as well as feeding. Depending on conditions, it will take 3 to 6 weeks from time of infestation until you see signs of infestation.

Small, red-colored bumps or blisters appear and at first are covered with dry, bran-like scales. Later, a dark crust develops. The skin becomes thickened, rough, and dry, and there may be considerable hair loss. The intense irritation causes the pig to scratch and rub vigorously. This scratching irritates the skin and causes a serum to flow that dries and forms more crusts on the skin surface. In advanced cases, an offensive odor may come from the lesions. Because of the severe irritation associated with this parasite, swine, especially young pigs, may not feed properly and may not gain weight efficiently.

Diagnosing sarcoptic mange is usually based on the clinical signs and favorable response to treatment. To make a positive diagnosis, skin scrapings may be needed to find the mites, although not finding them in a sample is not conclusive. You can scrape with a blunt scalpel or blade deep enough to draw blood. The edges of active skin lesions are good places to

look for mites. Oozing material from the outside of the ear is also a good place to look for mange mites. Look at these scrapings with a strong lens or preferably a microscope.

## Hog Lice and Mange Mite Controls

If moderate to high numbers of lice are present, you need to make two sequential treatments for effective control. In the case of mange mites, two sequential treatments would be advisable because of the protected state in which this pest lives. With both parasites, make the second treatment 10 to 14 days after the first. Once you clear up infestations, isolate new animals before sending them back into the herd. This will give you time to observe new animals for any signs of pests that may serve as a source of reinfestation, particularly if mange mites are involved.

The following materials are cleared for use on swine to control mites and lice. For complete application instructions, be sure to read the label before mixing and using any insecticide. Remember, label information can be helpful in controlling pests and preventing hazards to you and your livestock. Note that several products control both lice and mites.

Pesticides for Controlling Lice and Mange Mites*			
Material (Trade Name)	Formulation**	Controls Lice	Controls Mange Mites
amitraz (Tactic)	12.5% EC	X	X
coumaphos (Co-Ral)	25% WP	X	X
	11.6% EC		
	1% D	X	
permethrin (Ectiban, Permethrin II, Insectrin, Atroban, and others)	5.7% EC	X	X
	10% EC	X	X
	11% EC	X	X
phosmet (Prolate)	11.6% EC	X	X
stirofos (Rabon)	50% WP	X	
	3% D	X	
ivermectin (Ivomec)	1% injectable	X	X

\* Listed products include some of the common active ingredients, but are provided as examples only. This table includes a few of the products available to swine producers for ectoparasite control. Note: insecticide registrations are constantly being changed, new ones approved, and others cancelled. Always read and follow label directions.

\*\* D = dust; EC = emulsifiable concentrate; WP = wettable powder



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