



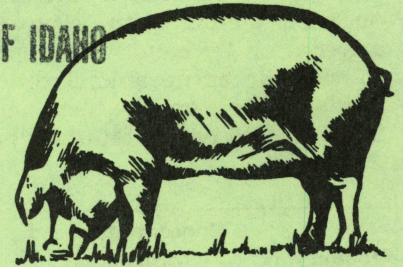
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External Parasites of Swine

HOG LICE

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Disease of the skin caused by lice is a common problem affecting pigs of all ages. Infestation with lice are widespread and are frequently found wherever pigs are reared. Lice infestations often result in unthriftiness, poor weight gains and secondary bacterial infections of the skin, and can mean costly economic losses. Lice may affect only a few pigs or an entire herd, depending in part on the type of facilities used, the season of the year and the rearing system — range or confinement. Infestations are usually more common and severe during the winter months, in poorly managed, unsanitary facilities and in confinement rearing systems.

Cause

Haematopinus suis, the common hog louse, is the most common insect parasite of swine. The parasite affects only swine and usually inhabits the folds of skin in the head, neck and jowel region, the base and inside of the external ears and the insides of the legs and the flanks. Adult lice are 1/8 to 1/4 inches in length and appear gray-brown with brown to black markings. They have piercing and sucking mouthparts which enable them to penetrate the skin and feed on blood and lymph fluids.

Adult female lice deposit and attach eggs (nits) one at a time onto the hair. The eggs hatch in 12 to 20 days into immature forms called nymphal instars. Nymphs also feed on blood and lymph fluids and later develop into adults. The average life-span of a louse is 35 days; the life-cycle from egg to adult to egg is 29 to 33 days.

Transmission

Lice normally spend an entire lifetime on the host and will not survive more than 2 to 3 days off the host. The parasites do transfer directly from one pig to another, especially when animals are in close contact such as during the winter months or in confinement rearing systems. Occasionally, lice are rubbed onto the sides of pens, feeders or bedding and later mechanically transferred to other pigs.

Clinical Signs and Pathologic Lesions

Pigs heavily infested with lice appear restless. They scratch and rub themselves almost incessantly. They do not feed properly, become unthrifty and have poor weight gains. The skin of affected pigs will appear unevenly reddened because of the mechanical damage caused by the parasite and the scratching and rubbing. Heavy louse infestations may result in anemia in young pigs. Lice seem to lower an affected pig's vitality and resistance to other diseases. Lice may also serve as mechanical vectors of swinepox virus.

Diagnosis

Diagnosis of lice in pigs is based on the presence of typical clinical signs and observation of the nits and adult lice on the hair and skin, respectively. Supportive evidence of a diagnosis includes unthriftiness and anemia. If lice are suspected, inspect the inner surface of the ears, particularly when the adult parasites and nits cannot be readily found on other parts of the animal's body.

Treatment and Control

To control the disease in pigs, you must eliminate the parasite from the host since lice are permanent parasites if left untreated. Several commercially available insecticides have been approved for use in swine. These insecticides kill both the adult parasites and the recently hatched nymphs. Most of these insecticides are restricted for use only on weanling or older aged pigs and some may not be used on pigs younger than 3 months of age.

An effective control program includes treatment of boars before breeding, sows before farrowing and young pigs soon after weaning. All new stock should also be treated for lice during the quarantine period after arrival. All animals should be treated at the same time and treatment should be repeated in 2 to 3 weeks or as directed. Buildings and concrete slabs used for feeding and watering should also be thor-

oroughly cleaned and disinfected. The treatment area must be well ventilated to avoid danger of inhaling excessive vapors from the insecticide.

The preferred method of treatment is by dipping but this is usually impractical because it requires special equipment. An alternate and effective method of treatment is to crowd the animals into a small pen and apply a designated amount of insecticide mixture on each animal with a power sprayer or put the material on by hand with a sprinkling can. Be certain to wet the entire animal thoroughly, especially the inside of the ears, the head and neck and the flanks. Sows treated only a few days before farrowing should

be thoroughly washed with clean water on the underline to remove residual spray material.

Dry powder and pour-on preparations of insecticides can also be used. Used crankcase oil or insecticide placed in hog oilers or on rubbing posts will hold an infestation in check but will not eliminate the parasites.

Federal regulations regarding the use of insecticides in swine are subject to frequent change. Always follow label directions and precautions. If in doubt, consult your veterinarian and Agricultural Extension Agent concerning questions of product use.

Insecticides effective against hog lice.¹

Product	Concentration and formulation	Directions and precautions for use	Product	Concentration and formulation	Directions and precautions for use
Ciovap	0.25% spray	Spray with up to 1 gallon per animal. Repeat in 14 days. No preslaughter interval but not more than once every 7 weeks.	Lindane	0.03% emulsion or suspension for young animals over 3 months of age. .059% for mature animals.	Spray. Do not spray within 30 days of slaughter. Do not use benzene hexachloride.
Ciodrin	0.25% spray		Malathion	0.5% emulsion or suspension	
Rabon	3% dust	Apply 1-2 oz. per animal with special attention to neck and ears. Repeat in 14 days, if necessary. Use 1 lb. dust per 150 sq. ft. of bedding.	Ronnel (Korlan)	4-5% dust	Spray. Do not treat swine less than 1 month old or sows within 14 days of farrowing; 2 applications, 10 days apart. No preslaughter interval. Apply liberal amounts of dust from the can onto animals. Repeat in 10 days. Use no more than 1/2 tbl. on animals less than 1 month of age. Avoid contamination of feed and water.
Coumaphos (Co-Ral)	1/4 lb. A.I. per 100 gallons	Spray. Repeat as necessary but no more than once every 10 days. Do not treat sick, convalescent or stressed animals or those less than 3 months of age. Do not repeat treatment within 10 days. No preslaughter interval.		0.25% emulsion	
	1% dust	Apply up to 1 oz. per animal and 2 oz. per 30 sq. ft. of fresh dry bedding. Repeat as necessary, but allow 10 days between treatments.	5% granules	Apply 1/2 lb. per 100 sq. ft. of bedding. Avoid contamination of feed and water. Remove 2 weeks before slaughter.	
Dioxathion (Delnav)	0.15% solution	Spray. Do not treat sows within 2 weeks of farrowing or nursing or swine less than 3 months of age. Do not repeat treatment within 2 weeks. No preslaughter interval.	Toxaphene	2 1/4 lb. A.I. per 100 gallons	Spray. Do not treat within 28 days of slaughter.
			Methoxychlor	4 lb. A.I. per 100 gallons	Spray. Do not repeat treatment within 2 weeks.
			Fenthion (Tiguvon)	Pour-on	Apply 1/2 fluid ounce per 100 lb. of body weight by pouring on the backline from the ears to the rump. Do not treat sick, convalescent or stressed animals or within 14 days of slaughter.

¹ Diseases of Swine. 4th Ed. Edited by H.W. Dunne and A.D. Leman. The Iowa State Univ. Press, Ames. (1975).
L. Breeden. Proceedings of Swine Seminar for Practicing Veterinarians. Univ. of Nebraska. (Sept., 1975):22-34.

Trade names are used in this publication for better understanding of the information presented. No endorsement of named products is intended nor is criticism implied of similar products not mentioned.