



## Swine Ectoparasites: Cockroach

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The cockroach has become an increasingly important pest in swine production in recent years (Waldvogel et al. 1999). The female cockroach deposits eggs in a protective case called an ootheca. The oriental cockroach, *Blatta orientalis*, deposits the ootheca within a few days. The german cockroach, *Blattella germanica*, however carries the ootheca for several weeks, limiting the potential for predator or parasitoid attack. Gregarious by nature, cockroaches feed on a variety of foods, including animal feeds and feces.

Cockroach populations are usually sampled at night when the insects are most active. Examining wall voids, cracks and crevices for hiding cockroaches and numerous oothecae is indicative of population size. Pyrethroids are often used to flush cockroaches from hiding sites during the day. Baits and sticky cards may also be used.

The economic importance of cockroach infestations in swine production has not been documented. German and oriental cockroaches are recognized as mechanical disease vectors, and hypersensitivity to cockroaches is particularly common among people (Gore and Schal 2007). Swine suffer from a number of mechanically transmitted disease agents, including mycotoxins, bacteria, viruses (Mpuchane et al. 2006, Zurek and Schal 2007, Gough and Jorgenson, 1983). Although biosecurity may be in force, cockroaches readily move between barns and nurseries, weakening the biosecurity effort.

Control and management of cockroaches include the application of conventional insecticides as residual surface sprays and baits. Pyrethroid and organophosphate insecticides are commonly used in swine production (Holscher et al. 1999). Although insecticide resistance has developed in the urban setting it has not been documented in swine production. To reduce pesticide exposures, inorganic insecticides such as boric acids and diatomaceous earth have also been used.

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