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Face Flies

It could just be me being bugged (*please excuse the Dad pun*) but one of the most annoying and economically damaging pests on a livestock operation are flies. It is often not the fly itself causing economic damage, but the infection of other organisms that are transmitted from the fly feeding activity on livestock. Several different types of flies can create countless different issues for livestock, but today we'll start at the head and discuss face flies, especially as they relate to pinkeye.

Face flies are pests of livestock animals such as beef and dairy cattle, as well as horses. Livestock react to fly feeding by bunching, sheltering in trees or standing in open bodies of water to avoid the flies. As a result of fly feeding, animals exhibit a variety of defensive behaviors such as; head tosses, tail switching, and bunching together with their heads facing inwards to avoid attacking flies.

The face fly is a full-bodied fly that resembles the house fly in appearance. Like the house fly, they have a sponging type of mouth and feed on animal secretions, nectar, and dung liquids. It is the female face fly that will be found clustering around an animal's eyes, mouth, and muzzle - causing extreme annoyance and irritation. Females also feed on blood and other secretions around open wounds. Face flies are present throughout the summer, but populations usually peak in late July, August, and early September. Adult face flies can live 20 to 50 days and are prolific egg layers.

Female face flies lay their eggs in fresh dung pats. As the larvae complete their development, they leave the dung pat and burrow into the surrounding soil where they develop into the pupal stage. The complete life cycle can be completed in usually 18 to 20 days depending on temperatures. The number of face fly generations per year can reach up to 10, especially the further south in latitude they are found. As temperatures start to cool and day length shortens in late summer and fall, both sexes aggregate on sunny sides of structures. They will work their way into cracks and crevices where they overwinter as adults, usually in areas such as attics, lofts, and walls of buildings, until temperatures are warm enough to draw them out in spring.

One to five face flies per eye per day can cause serious ocular lesions that mimic the symptoms of bovine pinkeye. Mechanical damage, whether sustained by face fly mouth parts, dust, weed, pollen, or excessive sunlight, predisposes the eye for infection and increases epithelial discharges or eye watering. Infectious bovine keratoconjunctivitis (IBK), also known as pinkeye, is a common eye disease of cattle caused by numerous bacteria carried by face flies. Clinical signs of IBK are excessive tearing, eye inflammation/ swelling, cloudiness in the cornea, and ulceration. Animals with IBK may exhibit weight loss, impaired vision, eye scarring, and blindness.

Control strategies for face flies include insecticide ear tags, dust bags, oilers/rubs, pour-ons, sprays, insect growth regulators (IGRs), and air-projected capsules. Control methods that target the head area of an animal are the most effective. Non-chemical control methods include walk-through traps, sticky traps, and conservation of beneficial insects such as predatory dung-inhabiting beetles. Commercial and autogenous IBK vaccines are also available to help manage IBK and if used, should be administered before animals are sent to summer pasture. Please consult with your veterinarian about the use of these vaccines. Most effective prevention and control strategies involve multiple approaches.

As summer progresses, we'll look at some other problematic flies. K-State has an excellent resource in Dr. Cassandra Olds, Extension Veterinary Entomologist who has an excellent website devoted to livestock pests. To learn more about this pest, reference the K-State Research and Extension publication "Face Flies" MF-3611 found on the KSRE Bookstore or in your local Extension Office.