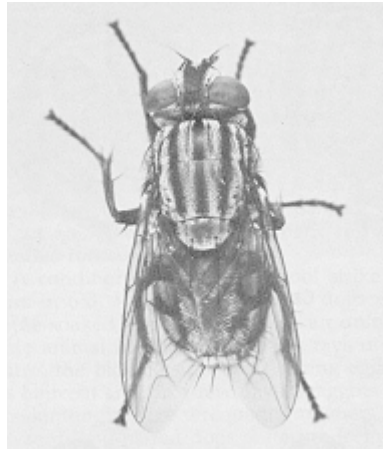


Spring Preparation for Fly Pests on Your Dairies

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Introduction

The Spring hatch of flies will soon be breaking out on California dairies. Now is the time to begin your fly control program rather than waiting until your cows are covered with flies and perhaps your suburban neighbors are complaining. Here are tips on what diseases they may be spreading, other effects on your herd, how to recognize the common flies and begin control measures.

Diseases and Production Effects

In general, flies are known to cause reduced efficiency in feed conversion, reduced weight gain and decreased milk production. They also cause a great amount of irritation and annoyance which can be a particular nuisance for cows without tails (flyswatters!). Biting flies with long mouth parts can be seen to chase cows and force them into abnormal behavior (Photo 1). With heavy fly populations, cows will not rest or go to the feed managers instead they gang up to avoid the painful bites. If they could, cows would avoid the flies by moving away from them, however, in our confinement dairies they can not escape.

Flies are associated with outbreaks of pinkeye in calves. They very often feed on the secretions of the eyes, nose and mouth of cattle where they cause irritation with their raspy mouth parts and by their secretions. This leads to increased tearing which attracts more flies. Flies are also thought to be involved in mastitis, particularly Staph mastitis in first calf heifers, by biting and irritating the teats ends. Non-biting flies also carry bacteria in their mouth parts from infected wounds and decaying feeds to other locations such as teat sores. Some biting flies can spread blood-borne disease from cow to cow as they take their blood meals.

Common Flies

The House Fly (Photo 2) is the cosmopolitan companion of both humans and their livestock. These flies about a half inch long. Their bodies are mostly gray with four dark stripes down the back. They have only sponging mouth parts (Photo 3) and can not bite. These flies feed on decaying feedstuffs and manure as well as on secretions around the eyes, nose, mouth, teats and reproductive tract. They are particularly prone to feeding on wounds or sores. The House Fly mechanically transmits bacteria from place to place on their mouth parts and feet.

The Face Fly (Photo 4) prefer to feed on the secretions around the eyes, nose and mouth. They are often associated with pinkeye and its spread from calf to calf as they feed on the fluid in and around the eyes. Their raspy mouth parts induce irritation as they feed resulting in increased weeping of the eyes. These flies only feed on the cows during the day. They rest off the cows at night.

The Stable Fly (Photo 5,6) has mouth parts that are very well adapted for biting to get their blood meals. Stable flies are strong flyers and depending on wind conditions can

travel many miles. However, it is seldom necessary for the Stable Fly to travel very far to seek suitable hosts on which to feed. These flies feed about once every hour during the day. Their feeding bites cause great irritation to cattle that may decrease feed intake and milk production. Blood loss may be significant in some cases. When Stable Flies become a problem, it is probable that they are originating locally.

Horn Flies are about one half the size of the common House Fly. These flies inflict irritating bites with their long mouth parts (Photo 7). During cooler weather, they tend to congregate along the topline of cattle (Photo 8), while in warmer weather they move down into the shade of the belly. Horn Flies spend most of their time on the cow and take a blood meal about once every hour. In some cases, blood loss can be significant.

Early Control Measures

Flies breed in moist areas that are very common on dairies. Some like the House Fly prefer to lay their eggs in a mixture of manure and other organic matter. Others like the Stable Fly selects areas with decaying green waste, spoiled grain and improperly composted manure. They will lay their eggs under calf hutches in the manure and straw bedding as well as in piles of grass clippings. The Horn and Face flies prefer fresh manure where they lay their eggs just under the surface of the freshly deposited manure (Photo 9). Once the eggs are laid in the preferred substances, a new generation of flies is only about 2-3 weeks away.

One step in controlling flies is to eliminate as much of their preferred egg laying sites as possible. Manure collecting around edges of freestalls and in alley corners as well as feed and silage accumulations in feed alleys are choice breeding spots. Cold, wet weather bedding materials of straw and rice hulls should be removed from closeup and calving pens. Before the weather really gets warm, all these areas of winter manure accumulation should be cleaned. Areas around water troughs should be inspected to insure proper drainage to eliminate these areas as potential breeding places. Begin now to scrape pens more often to continually disturb the freshly deposited manure.

It is not too early to begin thinking about the various chemical means of controlling flies. Check your supply of spray on insecticides, feedthrough larvicides, dust bags and insecticide ear tags. It is also a good idea to roundup the necessary treatments for pinkeye to minimize the sources of bacteria which the flies transmit.

Summary

The fly season will be here soon. Be aware that flies can transmit diseases and reduce production. Identification of the major fly pests can help to focus your fly control methods in the appropriate areas. Fly control involves management of the fly breeding areas as well as application of the various insecticidal treatments. For specific information on control and insecticides, contact your veterinarian or local extension office.

Photo 1 . Cow running from biting flies. Often termed "gadding".



Photo 2. House fly with four dark stripes on back.



Photo 3. Closeup of the head of a House Fly showing the non-biting, sponging mouth parts.

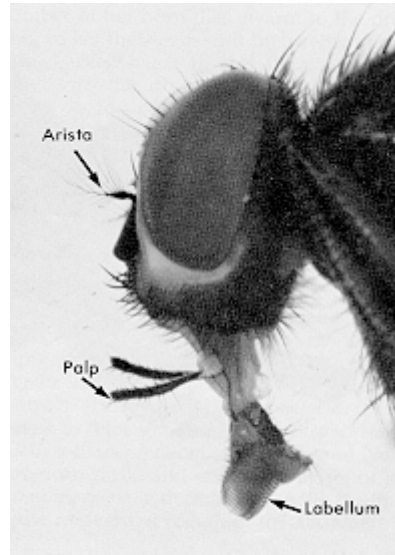


Photo 4. Face flies on their preferred location around the eyes, nose and mouth. Their mouth parts cause irritation as they feed resulting in more weeping of the eyes.



Photo 5. Long biting mouth parts of Stable Fly. Bites from these flies are very painful and irritating to the cattle.

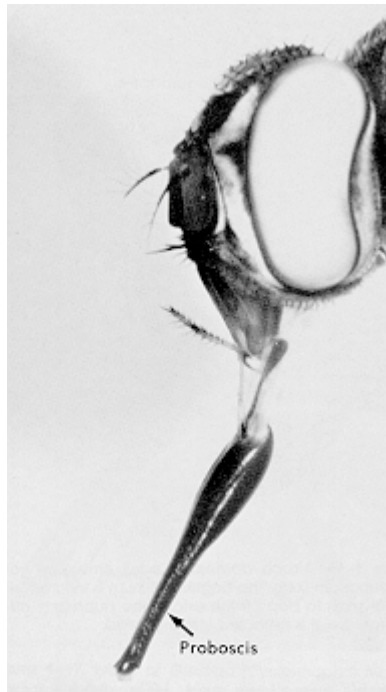


Photo 6. Stable fly biting to get a blood meal. Note the long mouth parts.



Photo 7. Horn Fly head showing the well developed biting mouth parts.



Photo 8. Horn Flies gathered on the topline of a cow.

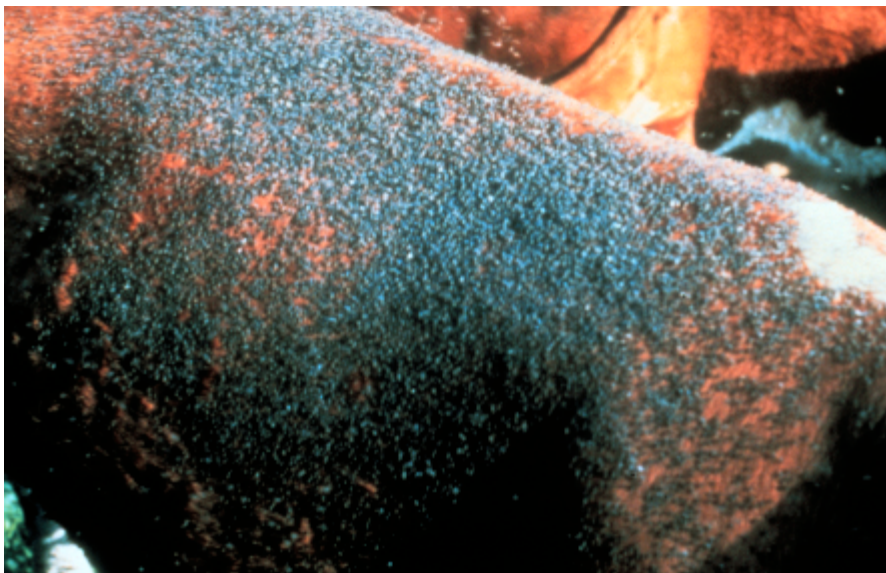


Photo 9. Face Flies on fresh manure where they prefer to lay their eggs.

