

Research Notes

A SIMPLE WAY TO DETERMINE THE PRESENCE OF THE STABLE FLY, *STOMOXYS CALCITRANS* (L.) (DIPTERA: MUSCIDAE), ON DAIRY FARMS IN PUERTO RICO

Stomoxys calcitrans (L.), commonly known in many localities as the stable fly, is one of the most important pests of dairy and beef cattle in many parts of the world. It breeds in decaying organic matter, most frequently in mixed straw and manure.

An infestation of only 10 flies per cow may reduce milk production by 10 percent and weight by 10 pounds of beef per head.¹ Heavier infestations cause still greater losses.

S. calcitrans sucks the blood of cattle, usually from the legs and underside of the abdomen. This blood-sucking habit distinguishes the stable fly from the house fly which often is found in association. The stable fly abandons its host soon after a blood meal. Conversely, the very common horn fly, *Haematobia irritans* (L.), remains feeding head-down on the upper parts of the animal. Because it remains on the animal for only short periods, the stable fly is easily overlooked if only animals are examined. In addition, grazing animals are difficult to examine in extensive fields or in the hilly central parts of Puerto Rico.

Among 33 dairy farms surveyed by the authors, stable flies were found on only two when 10 percent of the animals in each herd were examined. On the other hand, 23 of 30 other farms surveyed by examining the surrounding barbwire fences showed flies resting on them; a highly significant difference. Fences also were examined around sheds or where the animals were resting or grazing. A reinspection of the barbwire fences of six randomly selected farms from the first group of farms revealed that all of them were infested with the stable fly. These findings show that an examination of barbwire fences is a useful means of surveying for the presence or absence of stable flies.

Stomoxys calcitrans may be identified easily by its long stiff protruding mouth parts (proboscis) (fig. 1). Stable flies were found occasionally resting on concrete walls and wooden structures and breeding in nearby mixtures of manure and straw. Other flies found resting with stable flies were an undetermined species of banded-winged *Euxesta* (Otitidae), the bluish-green *Cochliomyia macellaria* (F.) (Calliphoridae), and the house fly, *Musca domestica* L. (Muscidae).

¹ Survey methods for some economic insects, compiled by USDA, ARS 81-31, May 1969.

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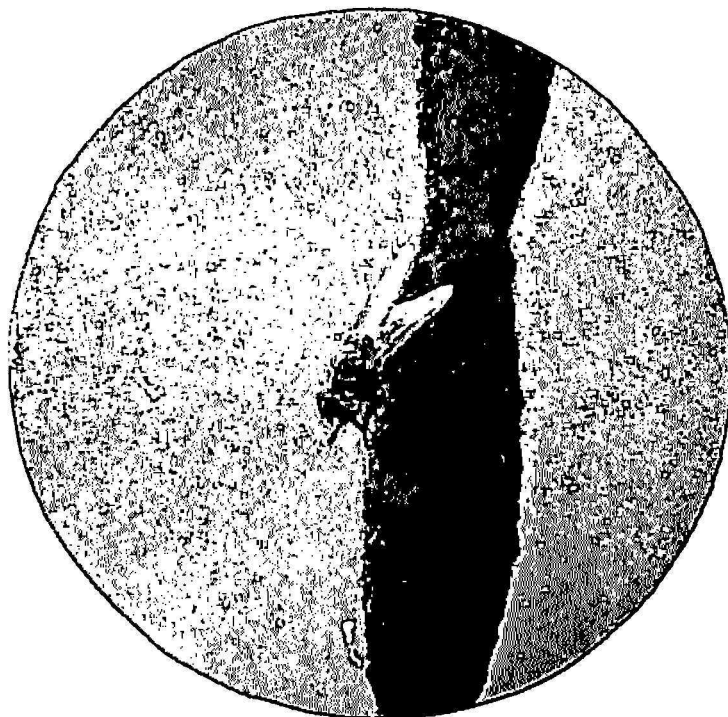


FIG. 1. *Stomoxys calcitrans* resting on barbwire fence. Note the long stiff protruding proboscis.