Musca autumnalis (DeGeer), A New Livestock Pest in Indiana[1]

D. L. Matthew and R. C. Dobson, Purdue University

A new dipterous livestock pest was observed on cattle in Indiana this year. Specimens were collected from cattle at the Herbert Davis Forestry Farm, Randolph County, east central Indiana, June 3, 1959. These specimens were forwarded to C. W. Sabrosky at the U. S. National Museum and were identified as *Musca autumnalis* (DeGeer). This new pest, *M. autumnalis*, although similar in appearance to the housefly, *M. domestica*, is somewhat larger and is darker in color. Taxonomic characters on the upper surface of the head are useful in separating the two species. Unlike *M. domestica*, the eyes of males of *M. autumnalis* are contiguous above or are separated by less than the width of the ocellar triangle. Females are separated by comparing the width of the frontal stripe with the orbital stripe. The grey orbital stripe of *M. autumnalis* females is nearly equal in width to the black frontal stripe while the orbital stripe of *M. domestica* is less than one-third as wide (Fig. 1).

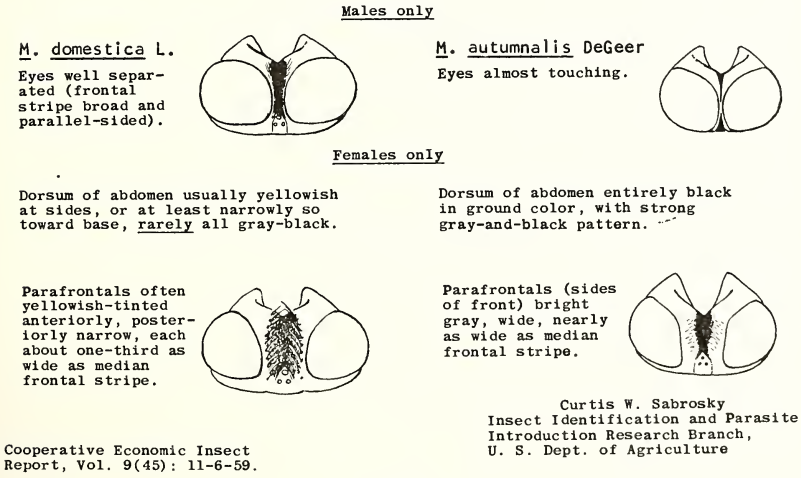

Figure 1

According to Vockeroth (2), *M. autumnalis* was first collected in North America in Nova Scotia, Canada, 1952. The first United States records were from New York State, 1953, and from Virginia, 1956, according to Sabrosky (1). During the past summer, however, first records were reported from 12 northeastern and north-central states. These states were Indiana, Ohio, Illinois, Wisconsin, Michigan, Delaware, Massachusetts, New Hampshire, New Jersey, Pennsylvania, Vermont, and West

[1]Purdue University, Agricultural Experiment Station Journal Paper No. 1543.

Virginia. In Indiana, infestations of economic importance caused great annoyance to both beef and dairy cattle. Horses were also infested.

These flies cluster around the eyes and nostrils of cattle and horses where they feed on mucus and watery secretions. This feeding activity causes annoyance and extreme irritation to the infested animals. Although *M. autumnalis* is unable to inflict feeding wounds, they have been observed feeding on blood and exudation from wounds made by other insects or from other causes. It has been suggested that these flies may also be possible mechanical vectors of infectuous eye diseases of cattle.

M. autumnalis may overwinter in this state by hibernating in buildings or other protected environments. Their appearance in homes during the winter months may coincide with cluster fly infestations. During the summer, eggs are laid on fresh manure. The yellowish maggots are found here until their maturity. Pupation occurs in the soil or on the surface of the soil beneath the manure. The adults are active from spring until late fall. The number of generations each year in Indiana is not presently known.

Literature Cited

1. SABROSKY, C. W. 1959. *Musca autumnalis* in the Central States. Jour. Econ. Ent. 52(5) :1030-1031.
2. VOCKEROTH, J. R. 1953. *Musca autumnalis* Deg. in North America (Diptera: Muscidae). Canadian Ent. 85(11) :422-23.