



House fly: A Nuisance Pest

Jaysingpure V.M.

Department of Zoology,
Balbhim Arts, science &
Commerce College Beed.
jaysingprevarsha@rediffmail.com

A.A.Jadhav

Department of Zoology,
Miliya Arts, Sci. and Mgt.
College, Beed.
jadhav.apeksha29@gmail.com

ABSTRACT

The housefly, *Musca domestica* L., is the major pest fly species which have negative impact on the production of egg-laying chicken, pullets and breeders. They also causes huge damage to poultry barn also. These flies are oriented all over the world in all climate from tropical to temperate. They may present in variety of environment ranging from rural to urban. To understand the effect of housefly on poultry farm it is necessary to understand the behaviour of housefly and it's relationship with the corresponding atmosphere. The objective of this article is to reveal the problem associated with the poultry farming and maintaining a healthy poultry barn environment.

Keywords: Housefly, insecticides, Poultry farming, Diseases

Introduction:

The family Muscidae comprises 9000 species which are Worldwide recorded(Roogar D Moon,2002). Most of them are (subfamilies Atherigoninae, Azeliinae, Coenosiinae, Crytoneurininae, Muscinae, Mydaeinae, Phaloniinae) (Bisby F.A.2012). Housefly are larvae of Muscinae (Muscidae: Diptera). The Adult housefly is also known as Imago. Mostly they are associated with the animal feces and feed on the garbage which was thrown by the people. So we can say that they are abundantly found where the people live.

Housefly feed on the garbage through this they can transport disease causing organisms. Housefly is major domestic and veterinary pest that causes irritation,

spoiled the food and act as a vector for many pathogenic organisms which causes dysentery, typhoid, anthrax, tuberculosis, cholera salmonellosis, ophthalmia etc. In 21st century fly control is an important public health measure. For effective management of population we must change the application of insecticides with the accurate environmental sanitation measure are useful to keep fly population under check control.

India has emerged on the international map for poultry farming. In South India Tamil nadu is the 1st largest poultry belt where as in Hariyana Raipur Rani is located at 2nd number. It is essential to know that chicken are not susceptible to intranasal infection by the SARS-CoV-2 (COVID-19) virus, nevertheless the COVID 19 pandemic will affect poultry consumption, transportation and economy of poultry farming.

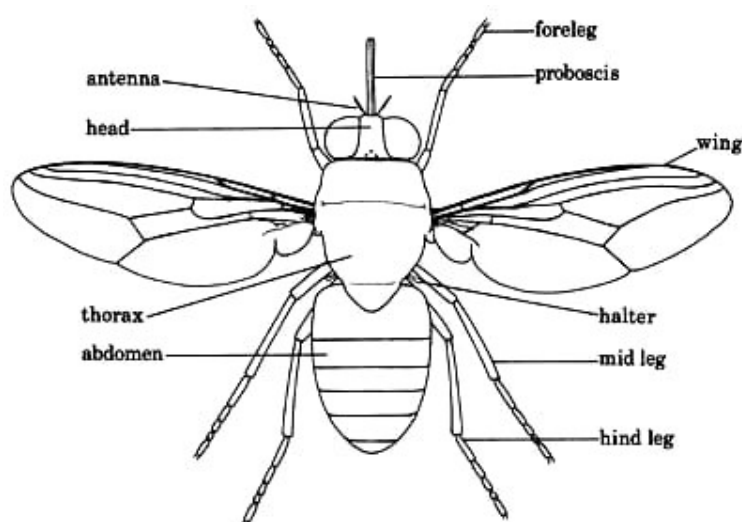


Table 1: States in terms of poultry population

Sr.no.	State	Poultry population (in million)
1	Andhra Pradesh	161.33
2	Tamil Nadu	117.35
3	Maharashtra	77.79
4	Karnataka	53.44
5	West Bengal	52.84
6	All others	266.45
	Total	729.21

**Table 2:** Poultry meat producing countries (2019)

Sr.no	Countries	Production (1,000 metric tons)
1	US	19,710
2	Brazil	13,800
3	EU	12,470
4	China	12,000
5	India	5,100
6	Russia	4,780

In India poultry meat represented around 37% of global meat production. Poultry is now consider as World's primary source of animal protein.

Review on predaceous behaviour of fly on poultry farm:

Richard C. Axtell (1985) published comprehensive amount of fly management in poultry production: cultural, biological and chemical method in which he reported manure handling system, climatic situation and principle of fly management. Vishal Dogra and Arun kumar Aggarwal (2010) observed the outdoor and indoor fly density from Raipur Rani, Hariyana. Mohd Sofian Azirun, Malaysia (2005) observed the maximum flight range of house fly will be 7km. Matthew D Aubuchon (2006) recorded CT50 for total house fly response towerd UV light trap was approximately 1.72h (103.2min). Devy Kartika Ratnawari (2013) observe the causations and potential action to estimate flies from manure as organic fertilizer. Demeny Andras (1989) reported that breeding of house fly was found only in place where manure was stagnant. F. W. Knapp and F. Herald (1982) larval mortality of flies depend upon the diflubenzuron concentration, length of exposure and age of the flies. R T Trout Fryxell, RD Moon, DJ Boxler, DW Watson (2021) observe the insect biology and life stages, physical and economic damage, surveillance strategies and management. Julia Howard and Richard Wall (1996) recorded that the use of triflumuron- treated targets as a practical autosterilizing system for house fly control in livestock production system. Mick E.



Hanley (2009) observed that variation of luring houseflies to trap in commercial livestock units fails to significantly increase capture rates.

Conclusion:

This article has attempted to assemble all the relevant information regarding the housefly and its corresponding relationship with poultry farm. Many researchers from different area research on the housefly and found that excessive population of housefly not only causes irritation to the farm worker but also to the human habitations. They may create public health problem by with the help of disease causing pathogens. Poultry and poultry products are rich source of animal protein and right kind of fat for good health so, this article help to increase population of poultry farming.

References:

1. Keiding J (1975) Problems of housefly (*Musca domestica*) control due to multiresistance to insecticides. *J Hyg Epidemiol Microbiol Immunol*.19: 340-55
2. D L Bailey, D W Meifert and P M Bishop (1968). " Control of house flies in poultry houses with larvicides". *Florida Entomologis* 107-111
3. Rutz D A, Axtell R C(1981)House fly (*Musca: Muscidae*) control in broiler- breeder poultry houses by pupal parasite (*Hymenoptera: Pteromalidae*) indigenous parasite species and release of *Muscidifurax* raptor *Environmental Entomology*. 10: 343-345
4. F. W. Knapp and F. Herald (1982) Congenitally Induced Mortality in Face Flies (*Diptera: Muscidae*) Following Adult Exposure to Diflubenzuron-Treated Surfaces. 19: 191-194
5. Axtell R.C.(1986) Status and potential of biological control agents in live stock and poultry pest management system. *Miscellaneous Publication of the Entomological Society of America* 61: 1-9
6. Mohd Sofian Azirun, Malaysia (2005) Determination of flight range and dispersal of the house fly, *Musca domestica* (L) using mark release recapture technique. 22: 53-61



7. Julia Howard and Richard Wall (1996) Autosterilization of the house fly, *Musca domestica* (Diptera: Muscidae) in poultry houses in north-east India. 86: 363-367
8. B.C. Nandi, and Shuvra Kanti Sinha (2004) On a small collection of Muscidae flies (Diptera: Muscidae) of Sundarban biosphere reserve, India. 102: 11-26
9. Mohd Sofian Azirun, Malaysia (2005) Determination of flight range and dispersal of the house fly, *Musca domestica* (L) using mark release recapture technique. 22: 53-61
10. Cirillo V J (2006) "Winged sponges": House flies as a carrier of typhoid fever in 19th and early 20th century military camps. *Perspect Biol Med*. 49: 52-63
11. Matthew D Aubuchon (2006) biological and physical factor affecting catch of houseflies in ultraviolet light traps. 29: 43-52
12. Malik A, Singh N, Satya S(2007) Housefly (*Musca domestica*): a review of control strategies for a challenging pest. *J Environmental science health B*. 42: 453-69
13. Rajesh Mehta and R.G. Nambiar (2007) The Poultry Industry In India. 27: 150-156
14. Mick E. Hanley, Katie L. Cruickshanks, D Dunn, Alex Stewart- Jones (2009) Luring houseflies (*Musca domestica*) to traps: Do cuticular hydrocarbon and visual cues increase catch? 23: 26-33
15. Vishal Dogra and Arun kumar Aggrawal (2010) Association of poultry farms with Housefly and Morbidity: A Comparative Study from Raipur Rani, Hariyana. 35: 473-477
16. Devy Kartika Ratnawari (2013) Overview: Eliminate Flies from Manure. 20: 1-9
17. A. Dorper, T. Veldkamp, and M. Dicke (2021) Use of black soldier fly and house fly in feed to promote sustainable poultry production. 7(5): 761-780
18. R T Trout Fryxell, R D Moon, DJ Boxler, D W Watson (2021) Face fly (Diptera: Muscidae)- Biology, Pest Status, Current Management Prospects, and Research Need. 12: 150-162