

BENETIC INTERACTION OF HESSIAN FLY BIOTYPE M
AND E WITH WHEAT CULTIVAR ABE HAVING H 5 GENE OF RESISTANCE

C. Kudagamage and J.E. Foster.

Hessianfly, Mayetiola destructor (Say) is an important pest of wheat in the United States. Although control has been achieved by the use of the resistant cultivars, new insect biotypes capable of rendering formerly resistant cultivars susceptible have evolved. A knowledge on the inheritance of virulence of Hessian fly is important in the understanding of the evolution of biotypes.

The genetic nature of the ability of Hessian fly biotype M to survive on wheat cultivar Abe was studied in F1 and F2 and backcrosses between biotype E X biotype M. The genetic ratios observed in various crosses showed that the ability of Hessian fly biotype M to survive on Abe wheat was under single gene inheritance. Differences in survival of reciprocal crosses indicate that inheritance of survival on wheat is associated with cytoplasmic factors.