

Montana small grain insects

Hessian fly

Mayetiola destructor (Say) (Diptera: Cecidomyiidae)

Hessian flies were accidentally introduced from Europe during the Revolutionary War. Now they are found across North America. They are one of the most destructive insect pests of wheat in some states, but have caused only moderate damage in Montana.

Capsule Information Series

Number 38, October 1991

Hessian fly



Adult

Flies resemble mosquitoes. They lay eggs on leaves. Maggots move between leaf sheaths and stems. Only one generation per year has been found in Montana. If multiple generations occur, heavier damage is expected.



"Flaxseed" on broken stem



Normal and infested tiller

Maggots suck juices from plants. They also inject toxins which kill young tillers or weaken stems of older plants. Head weights of surviving plants are greatly reduced. Stems are not chewed. Leaves of infested seedlings may be thick and dark.



Larva and puparium

Larvae and puparia can be found by pulling leaves and sheaths from stems. Larvae remain attached to stems throughout their development. Puparia are sometimes called "flaxseeds" due to their appearance.

Potential control practices:

- Resistant wheat varieties need to be developed.
- Barley and other resistant crops could be planted.
- Chemicals are effective if applied at seeding.
- Many species of beneficial parasites are present.