

Understanding The Importance Of The Hessian Fly-Free Date

URBANA, ILL.

Wheat seeding in northern Illinois will soon be here. Seeding should be done as soon after the Hessian fly-free date for your county as possible. The fly-free dates range from September 17-20 for counties along the Illinois-Wisconsin border to October 11-12 in far southern Illinois. To better understand the importance of the fly-free date, let's discuss some characteristics of the Hessian fly.

Hessian fly adults emerge in late summer and early fall. The fly-free dates typically occur after peak emergence of the fly. By planting wheat after the fly-free date, the egg-laying females are not able to find a suitable host, so they die without laying a full complement of eggs.

If the Hessian fly female finds wheat that has been planted early enough, she will lay her eggs. The destructive larvae will hatch and feed in the fall and then overwinter in puparia at the bases of the plants. Hessian fly injury reduces the quantity and quality of the grain.

Hessian fly larvae are glistening white, maggot-like, and small, about 1/6 inch long when fully grown. They can be found feeding beneath the leaf sheaths at the bases of plants and just above nodes. The maggots use their mouthparts to suck up plant juices. Injured plants become stunted, and larval feeding prevents normal elongation of internodes. Infested plants become weakened in the fall and fail to tiller. In addition to being stunted, damaged plants turn dark green and are brittle. Plants may lodge during grain fill.

When the larvae finish feeding, they mature to the pupal stage by mid-autumn. They overwinter as brown puparia or flaxseed from which the next spring's adults will emerge. There is no rescue treatment for Hessian fly.

Hessian fly-free dates are listed in the Illinois Agronomy Handbook, available at Extension offices and on-line at <http://iah.aces.uiuc.edu>.

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