

The role of chemicals of sorghum plants in stimulating oviposition by the sorghum shootfly, *Atherigona soccata* Rondani, was investigated using the acetone extract of the susceptible sorghum CSH-1, which elicits high ovipositional response. Maize, not a host plant, treated with acetone extract of CSH-1 elicited as much egg-laying by the sorghum shootfly as did CSH-1. The activity of the extract on maize lasted for the maximum test period of 5 d. Results of these studies demonstrate the potential of the host-plant-produced oviposition stimulants for manipulating the ovipositional behavior of the sorghum shootfly as a strategy for the control of the pest.