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Protective and Curative Measures Against Litchi Fruit Borer (*Conopomorpha sinensis*)

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Infestation of litchi (Litchi chinensis) by fruit borer, Conopomorpha sinensis is severe in Bangladesh. Two separate experiments on varietal susceptibility and management, were conducted in randomised complete block design (RCBD) with three replications at the Fruit Research Station, Bangladesh Agricultural Research Institute (BARI), Rajshahi, Bangladesh to identify fruit borer tolerant litchi variety and to develop cost effective guidelines for managing this pest in 2018-19. Netting as protection as well as combination of spraying chemicals and bio-chemicals including sanitation was used as curative measures. Among all the management treatments, netting the whole plant with mosquito net of 40 mesh starting from pea stage (fruit setting) as well as sanitation (pruning of shader branches and removal of fallen leaves of the tree) plus spraying of imidacloprid 1 ml (20 SL product) per litre of water at pea stage (fruit setting) and spinosad 1.2 ml (2.5 EC product) at marble stage (developing) and at early ripening stage (twenty days before harvest) of fruit showed higher but statistically similar performance. Netting reduced 89 and 95 per cent borer infestation at developing and ripening stages respectively over control and it showed highest yield performance (4 071 fruits per plant) i.e. 76 per cent healthy fruit yield increase over control and also highest (3.7) marginal benefit cost ratio (MBCR). The chemical treatment provided 64.86 and 82.95 per cent reduction of borer infestation at developing and ripening stages respectively over control. There was an increase of 76.16 per cent of healthy fruit yield over control and also 3.6 MBCR. These two guidelines were recommended among six eco-friendly management treatments. Results indicated that among the three common cultivated litchi varieties, China 3 was the most tolerant variety to fruit borer.

Keywords: Litchi fruit borer, *Conopomorpha sinensis*, netting, spinosad, imidacloprid, litchi.

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