



Screening of Genetic Diversity of *Cinnamomum* spp. Found in Sri Lanka Using PCR Based Techniques

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Crop plants are always subjected to pest attacks during the entire growth period. Finding resistant genes to produce pest resistant crop varieties is one of the environmental friendly crop protection strategies practiced by plant breeders throughout the world. Wild relatives of crop plants are known to carry such pest resistant characters which could be introduced to crop plants. The present study compared the damage of leaf feeding insect pest, *Sylepta derogata* on okra, *Abelmoschus esculantus* and its wild relative *Abelmoschus angulosus*. Laboratory bioassays were conducted in order to find out the extent of leaf damage. Thirty replicates were used for the selected age categories of (3, 5, 7, 9, 11 and 13 weeks old) plants. Further, leaf roll formation and percentage leaf damage caused by *S. derogata* on the crop and the wild relative in the field were studied. Leaf card index was used to assess the percentage leaf damage.

The estimated leaf area damage caused by *S. derogata* on *A. esculantus* (crop) (1.135 ± 0.147) was significantly higher than ($P < 0.05$) that of wild type *A. angulosus* (0.013 ± 0.004). Similarly in the selected age categories *A. esculantus* leaves had higher mean leaf area damage by *S. derogata* compared to the *A. angulosus*. The number of leaf rolls made by *S. derogata* on *A. esculantus* leaves was higher than those of on *A. angulosus* leaves and it was significantly different ($p < 0.001$). Leaf damage index values also showed that the damage caused by *S. derogata* on *A. esculantus* were significantly higher than the damage on the leaves of *A. angulosus*.

These findings indicate that *A. angulosus* may possess characters resistant to *S. derogata* damage, which is a key pest of crop *A. esculantus*. Identification of resistant factors in this wild relative would be very useful for development of *S. derogata* resistant *A. esculantus* crop cultivars in future.

Key words: *Sylepta derogata*, *Abelmoschus esculantus*, Wild relative plant, *Abelmoschus angulosus*