

# **Distribution, Infestation and Occurrence of *Noorda blitealis* Wlk. and *Gitona distigma* (Meigen) in *Moringa oleifera* Lam. in the Home Gardens of the Jaffna District, Sri Lanka**

K. Sharjana\* and G. Mikunthan

Department of Agricultural Biology, Faculty of Agriculture, University of Jaffna, Kilinochchi, Sri Lanka  
\*k.sharju@yahoo.com

*Moringa oleifera* Lam. is grown in Jaffna home gardens for pods and leaves. After the introduction of *Moringa* variety PKM 1, the population of leaf eating caterpillar (*Noorda blitealis* Wlk) and pod fly (*Gitona distigma* (Meigen)) were suddenly increased causing severe damage on leaves and pods. Hence, this study was carried out to map the distribution of the insects and their occurrence in Jaffna District. The infestation of *N. blitealis* was reported in the Maruthankerny, Velanai, Karavaddy, Chavakachcheri, Pointpedro, Kayts, Nallur, Kopay, Kaithady Jaffna, Uduvil, Thellipalai, Sandilipay and Chankanai Divisional Secretariat (DS) divisions. Highest infestation, score of 4 (defoliation 76% -100%) was recorded in the Maruthankerny, Velanai, Karavaddy, Chavakachcheri and Point Pedro DS divisions. *G. distigma* infestation was observed in the Maruthankerny, Velanai, Karavaddy DS divisions. The highest score of 4 (pod damage 76% -100%) was reported in the Maruthankerny, Karaveddy and Velanai DS divisions. The larvae of *N. blitealis* fed on leaves and bark followed by webbing and skeletonising of the trees resulting complete defoliation. The pod fly, *G. distigma* maggots causes damage on tender pods by feeding and affected pods were dried and split from the tips. Gummy exudates were found oozing out from the pods. A questionnaire survey carried out among the *Moringa* growers in this district revealed that *N. blitealis* infestation increases in the rainy season during the months of October, November, December, January and February. Growers have been using different tactics to control these pests, such as proper sanitary measures, hand picking (84%), pruning (92%) and applying wood-ash (33%), leaf extracts (25%), cow urine (16%) and insecticides (32%) in their home gardens. Severity of *N. blitealis* infestation was found to be negatively correlated with the plant spacing, while, it was positively correlated with the amount of fertilizer used. Spiders, *Chrysoperla carnea*, *Cydonia vicina*, praying mantids and greater coucal (*Centropus sinensis*) were recorded as predators of *N. blitealis*. Early detection of these infestations is important to manage this pests and it is suggested here, to promote non-chemical control methods using farmer awareness.

**Keywords:** *Gitona distigma*, home garden, *Moringa oleifera*, *Noorda blitealis*

## **Reference**

1. K Sharjana and G Mikunthan, 2017 Distribution, Infestation and Occurrence of *Noorda blitealis* Wlk. and *Gitona distigma* (Meigen) in *Moringa oleifera* Lam. in the Home Gardens of the Jaffna District, Sri Lanka. ***Proceeding of the 3<sup>rd</sup> international conference on Dry Zone Agriculture***, 3(1):80