

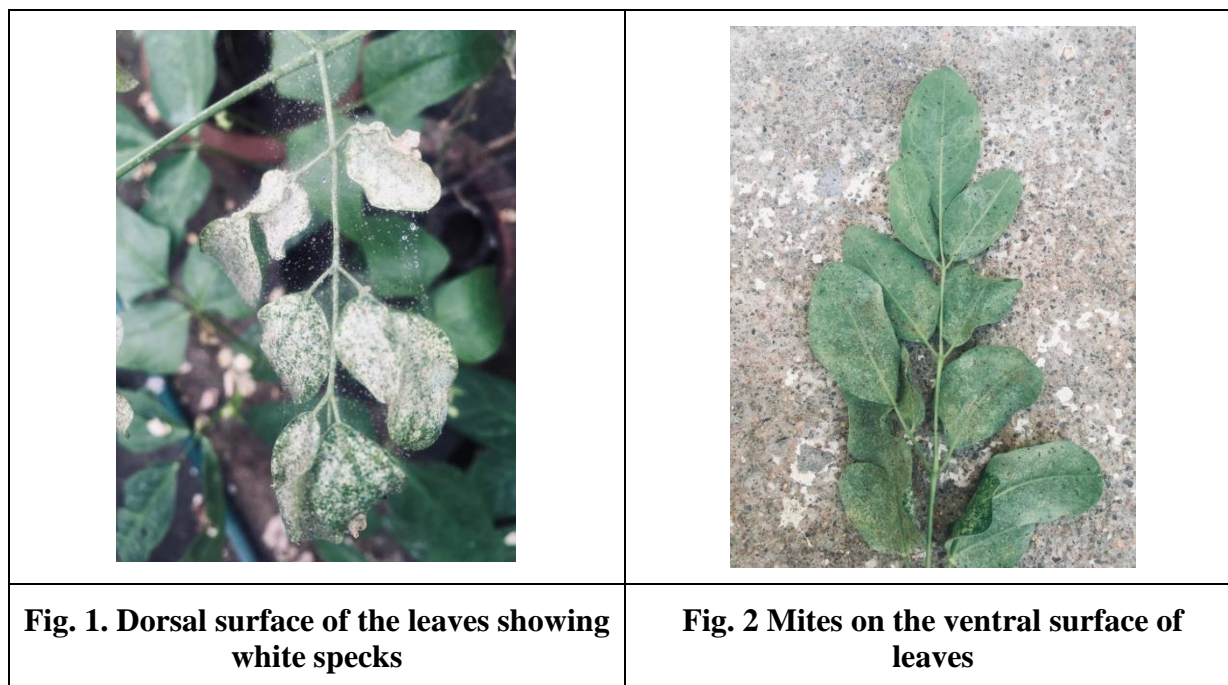
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**Liquid pongamia soap unsettles *Tetranychus* sp. on Moringa*****Abraham Verghese*<sup>1\*</sup>, *Rashmi. M. A*<sup>2</sup> and *Deepak. S*<sup>3</sup>**<sup>1</sup>Former Director ICAR-National Bureau of Agricultural Insect Resources and Former Head, ICAR-Indian Institute of Horticultural Research, Hesaraghatta, Bangalore, 560089, India<sup>2</sup>Regional Plant Quarantine Station, Bengaluru, 560024 India<sup>3</sup>Directorate of Plant Protection Quarantine & Storage, Faridabad, India 121001**Corresponding author: [abraham.avergis@gmail.com](mailto:abraham.avergis@gmail.com)**

In January, 2022, a heavy infestation of the red spider mite, *Tetranychus* sp. was found on the organic drumsticks (*Moringa oleifera*) maintained in pots on a terrace garden in Bangalore (12.9716° N, 77.5946° E), India. The dorsal surface of the leaves showed white specks (Fig.1, 2) while the ventral surface had mites. A pre-count showed 28-34 mites/leaflet on 20 random leaflets. Two treatments as given in Table 1 was administered using a 2-litre pneumatic hand sprayer. As the plants were about three feet in height, in pots, spraying under the leaves was very easy. After 24 hours, water spray dislodged about 40 % of the mites (14-21 mites/leaflet) while, a spray of liquid pongamia soap (10%) blend @ 3ml /litre showed only 2-6 mites/leaflet. Further, these too disappeared in 72 hrs, in the soap spray, as probably the host was rendered unpalatable to the mites.

In South Africa, Moringa seedlings were attacked in greenhouses by *Tetranychus*

sp. resulting in the withering of species (Dube *et al.*, 2015; Olson, 2014). Globally there are more than 1200 spider mite species in the Tetranychidae family (Prostigmata: Acari) that infests different crops. Feeding activity of the vegetable mite, *Tetranychus neocaledonicus* (Andre) on *M. oleifera* led to the formation of conspicuous white spots, manifested through chlorosis of the leaves. Affected leaves exhibited chlorophyll loss and subsequent drying up and shedding (Kotikal and Math, 2016). Studies of Kaimal *et al.* (2017) revealed that lower surface of the leaves of *M. oleifera* had heavy infestations of *Tetranychus neocaledonicus* (Andre) compared to the upper surface. Dense populations of these mite with all life stages were seen under silken webs. As Moringa is grown in terrace for the leaves, as a medicinal herb, spraying organic friendly liquid pongamia soap is a safe option.



**Table 1. Efficacy of Liquid Pongamia Soap\* on the mite *Tetranychus* on Moringa in a terrace Garden in Bangalore, India**

Treatments		Number of mites / Leaflets (n=20) (Range)
Prior to treatment		28-34
After Treatment (24 hr)		
1.	Water Spray	14-21
2.	Liquid Pongamia Soap Spray	2-6

\*Rashvee Liquid Pongamia (10%) soap blend @ 3ml/litre

**References**

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