

ISOLATION OF INTRACELLULAR SYMBIOTES IN SRI LANKA
FROM THE EGGS AND FAT BODIES OF THE BROWN PLANTHOPPER,
NILAPARVATA LUGENS (HOMOPTERA : DELPHACIDAE)

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Nasu *et al* demonstrated the existence of yeast-like organisms in the mycetocytes of eggs, fat bodies and ovaries of the brown planthopper, *Nilaparvata lugens* (Stal). In the females, these symbiotes are transferred from fat bodies to ovaries and penetrate into the egg through the ovariole pedicel. This paper describes the isolation and culture of intra-cellular yeast-like symbiotes from the mycetocytes of eggs and fat bodies of abdomen *N. lugens* occurring in Sri Lanka.

SECTION D

N. lugens used in these studies was obtained from paddy fields in Amparai district and cultured in the laboratory in Jaffna. The mycetocytes were dissected out and cultured in lactose broth and lactose agar medium at 30-31°C.

Two kinds of yeast-like symbiotes were observed in both the eggs and fat bodies of *N. lugens*: (a) elongated sheath-like cells and (b) oval shaped cells. The elongated sheath-like cells were more predominant and significantly larger than the oval shaped cells.

The symbiotes appeared to decrease in size when cultured in lactose broth and lactose agar medium. The decrease in size of the symbiotes may be due to inadequate nutrients in the media.

Reference

1. Nasu, S. *et al.* *Applied Entomological Zoology*, **16**(2), 88-93 (1981).