

MANAGEMENT OF SLUGS AND SNAILS ON YOUNG RUBBER

V.T. Jose, C.R. Nehru and K. Jayarathnam

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Aldicarb granules and Snailkill (2.5% metaldehyde) applied as broadcast (20g/plant) and aldicarb 0.01 per cent slurry with maida proved to be molluscicidal when applied to young rubber plants. Bordeaux paste showed repellent activity for 45 days.

Key words : *Hevea*, *Mariella dussumieri*, *Cryptozona bistrialis*, Slugs, Snails, Molluscicides.

V.T. Jose (for correspondence), C.R. Nehru and K. Jayarathnam, Rubber Research Institute of India, Kottayam - 686 009, Kerala, India.

INTRODUCTION

The infestation of slugs (*Mariella dussumieri* Gray, *Semperula maculata* Templeton) and snails (*Cryptozona* (*Xestina*) *bistrialis* Beck) and their damages in rubber (*Hevea brasiliensis*) plantations have been well documented (Sharples, 1936; Edgar, 1958; Pillay, 1968; Jayarathnam and Rajendran, 1979). Metaldehyde (Edgar, 1955; Ramakrishnan and Pillay, 1962), aldicarb (Judge, 1969; Jayarathnam and Rajendran, 1979) and copper sulphate (Anderson and Taylor, 1926; Bharadwaj, 1972) are reported molluscicidal, while Bordeaux paste was reported as repellent to slugs and snails attacking rubber plants (Jose *et al.*, 1989).

The present investigations are aimed at optimising the dosage of metaldehyde and aldicarb maida slurry and comparison of the effective dose with the repellent activity of Bordeaux paste in rubber seedlings and young budded plants in nursery and field.

MATERIALS AND METHODS

Field experiments were conducted

during 1988 to 1992 at four locations in Kottayam District, Kerala, India. Proprietary bait preparation of metaldehyde (Snailkill 2.5G) and aldicarb (Temik 10 G) at the required dosages incorporated into a slurry of maida (fine wheat flour) with water (700 g/l) were used for sprinkling in and around the plant bases. The aldicarb maida slurry was also used for application on the stem. Bordeaux paste (10%) was used (50 g/plant) for comparative evaluation of repellent activity. Different dosages of metaldehyde bait *viz.*, 20, 15, 10 and 5 g/plant was compared with, aldicarb maida slurry (0.01%) and Bordeaux paste (10%) in a randomized block design. For aldicarb, a band of width 2.5 cm and for Bordeaux paste 30 cm was used. Metaldehyde bait was broadcasted at the base of field planted budded stumps, polybag plants and seedling nursery (4 x 1 m area). The number of slugs on the plant during 10 pm to 12 midnight for three days from 10 plants in each plot were recorded and means worked out. Post treatment mortality counts were recorded similarly and expressed per plant per day. Infestation rate was calculated as