

THE UPTAKE OF SOME SYSTEMIC FUNGICIDES BY THE TEA PLANT AND THEIR EFFECTIVENESS AGAINST *MACROPHOMA THEICOLA* AND *PHOMOPSIS THEAE*

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Benomyl has been shown to be taken up by the tea plant from the soil and its activity within the plant has been found to be long lasting¹. This was demonstrated by bioassays using *Phomopsis theae*, the fungus causing collar and branch canker in young tea. Similar studies were carried out with *Phomopsis theae* and *Macrophoma theicola*, the fungus causing stem and branch canker in the low-country. The fungicides tested were benomyl, pyracarbolid, thiabendazole and triadimefon. The effectiveness of these fungicides on spore germination and mycelial growth of these two fungi was also tested *in vitro*.

All these fungicides were taken up by the tea plant, when applied to the soil, to varying degrees. Their activity within the plant, as determined by bioassays, lasted for different periods of time. In the *in vitro* tests, except for pyracarbolid, the other fungicides inhibited spore germination and mycelial growth.

The effectiveness of some of these fungicides, their systemic activity and their apparent lack of photo-toxicity indicate the possibility of their use as routine fungicides for the control of these diseases in the field.

Reference

1. Shanmuganathan, N. and Bopcaratchy, R. N. (1972). Uptake of benomyl by the tea plant and its effectiveness against stem canker, (*Phomopsis theae*), *Tea Q.*, **43**, 103-110.