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MANAGEMENT OF HORSE-HAIR BLIGHT IN TEA

(This Advisory Circular cancels Guideline 1/03 issued in May 2003)

1. Introduction

Horse-hair Blight is so named because the cord of mycelium (rhizomorph), which is blackish, round and rather stout, has a striking resemblance to the black horse hair. It is caused by the fungus *Marasmius crinis-equi* which is an epiphyte (growing on the bush without deriving its nourishment from the living tissues) seen to be growing on the branches and leaves of the tea bush. It is often mistaken for a parasite because of the dead leaves and twigs being attached to the hair-like chords. Besides tea, it has been recorded on nutmeg, rubber and other jungle shrubs.

2. Symptoms

Horse-hair Blight originates either from the main stem or any of the branches and the fungal strands grow upwards, with the help of small brown pads of hyphal aggregates, crisscrossing the entire bush. This results in a matrix of netting, in which all the debris and falling leaves are entrapped. The fungus usually obtains its nourishment from the dead outer bark of the older tea stems as well as from the decaying material within its entangle. The problem assumes greater dimensions towards the latter stages of the pruning cycle, giving the bush a very unhygienic appearance. Heavily affected bushes would generally appear to be unthrifty.

3. Occurrence and Spread

This problem is normally more prevalent in tea fields situated below 600 m elevation, possibly due to temperature and humidity being relatively high, and hence it is considered a low-country problem. Low lying riverbed-associated flat terrains are more conducive to this problem, even though it is also commonly seen in shady and damp upper slopes of fields.

Though this was considered an insignificant problem in the past, mainly affecting debilitated tea, increased incidences and intensities have been reported in recent times probably due to expansion of tea planting into more marginal conditions. The lack of attention to details, like adequate post-prune bush sanitation, may have permitted the few strands first noticeable to multiply to heavy proportions over subsequent cycles. The remnants left behind at pruning would lead to a greater tangle of mycelial threads by the end of the current cycle capable of collecting more debris and falling leaves.

Since the fungus is non-parasitic, no direct damage is done to the growing bush. However, it can cause a heavy leaf fall and physical hindrance to operations such as plucking and pruning (more so with mechanical pruning), the severity varying in proportion to the undisturbed age of the tangle.

4. Remedial Measures

- Maintenance of bush sanitation is of paramount importance. Cleaning of bush frames should commence at first prune, and any black mycelial threads present should be removed physically. Such bush sanitation, at pruning, should be practiced on all new clearings in areas below 600 m.
- Burying the prunings and mycelial threads of the fungus.

- Spraying of hydrated lime on to tea bush frames should be considered mandatory after each prune. About 1,000 L of this solution would be required to cover 1 ha of tea (Please refer Advisory Circular PU2).
- Improving soil conditions by the addition of organic matter combined with periodic forking is also an indispensable operation.
- Poorly drained (alluvial) soils should be provided with better drainage and aeration.
- During monsoon periods, adequate sunlight and ambient aeration should be provided by adopting proper shade management practices.

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