REHABILITATION AND TEA DISEASES*

D. Mulder

Primary Root Diseases.

Red root disease (*Poria hypolateritia*), Charcoal root disease (*Ustulina deusta*), and Brown root disease (*Fomes noxius*) are the common primary root rots that occur in tea. Young plants, either of tea or shade trees, may be easily attacked and killed by these root diseases if they are planted out in a previously-affected area, especially when the soil is not properly cleared of infested woody material after uprooting.

In areas intended for replanting where patches of vacancies occur, dead or unhealthy bushes should be marked. These areas should be forked deep and all roots of both tea and shade trees dug out and burnt on the spot. Bushes could be uprooted by a winch, but care should be taken to remove all smaller roots of pencil thickness afterwards. Otherwise, these smaller roots would form sources of infection in the new clearing. The sites thus cleared should be put under a green crop such as Guatemala grass or Tephrosia vogelii (an indicator crop for Red root disease), for at least one year and preferably 2 years before replanting. Outside these patches of suspected root diseases, the winching of bushes and shade trees could be done with ease, as it is not necessary to take special care to remove all the smaller roots.

Phloem Necrosis Virus Disease.

Phloem necrosis virus has not yet appeared in plants supplied in old, severely-infected areas. Therefore, we have no evidence so far that any danger of infection is involved in replanting phloem necrosis areas with healthy material.

Thatching on Newly-Planted Tea.

It is a general practice to thatch new clearings with Guatemala or Mana grass. Experience has shown that thatching should be confined to the inter-row space and not be done around the collars of bushes, for when the thatch gets heated by the sun, the tissues at the collar region are killed resulting in collar canker. This alone is sufficient to kill the plant. It has also been reported that the fungus *Rosellinia arcuata* which causes the Black root disease spreads through thatch in new clearings.

Cover Crops in relation to Diseases.

Guatemala grass has been grown extensively for more than 10 years on many estates as a cover crop prior to replanting. It has a depressing effect on both root-knot and meadow eelworm populations and does not harbour root parasites. Infection experiments initiated at St. Coombs, to attempt the artificial infection of grass roots with portions of Poria infected tea roots, have conclusively proved that the grass roots do not serve as hosts for Poria root disease.

Tephrosia vogelii is susceptible to both root-knot and meadow eelworm and should therefore not be grown on eelworm-infested areas.

Marigold has a depressing effect on eelworm population, but has probably no effect on parasitic fungi. Marigolds could be planted as a cover crop between the rows of tea during the first year of growth, in previously-infested areas.

Crotalaria sp. is less susceptible to eelworm than Tephrosia, but is commonly affected by a leaf disease caused by the fungus *Parodiella grammodes* and a mosaic virus disease.

* A note submitted subsequent to the Symposium.