A New Alternate Host of Citrus Psylla
(Diaphorina citri Kuw.)

Citrus psylla is one of the notorious pests of citrus and causes considerable damage to citrus plantations in Vidarbha region of Maharashtra State. Both nymphs and adults of this pest suck the cell sap from the tender shoots and buds which as a result dry up. In the cases of severe infestation, complete crop failures are also reported (Dorge et al; 1968). The early stages of nymphs usually feed on buds and tender shoots. As they suck the sap, they secrete a honey dew like substance from their anal ends, sometimes in such enormous quantities that a tree appears to be whitish-pale in colour. This secretion encourages the growth of a black sooty mould on the leaves. The infestation by the nymphs of the citrus psylla results in the malformation of leaves which are badly curled, look sickly and fall off prematurely. Apart from the loss of sap, the nymphs also inject into the plant tissue some toxic substances at the time of sucking the sap as a result of which the fruits remain undersized poor in juice and insipid in taste (Pruthi and Mani, 1945).

Citrus psylla attacks all species and varieties of citrus (Rahman, 1939). In addition to these plants, it also infests several other plants of the Rutaceae family like curry limb (Murraya koenigii), (Takahashi, 1936), bel (Aegle marmelos), wood apple (Feronia limonia) (Bagal and Khan, 1963) and Clausena lanataum (Hoffman 1936). Out of these host plants, Clausena lanataum is not found in Vidarbha region and curry limb is a rare cultivated plant for condiment purposes. The remaining two host plants such as bel and wood apple although common, their distribution is meagre in this tract. Therefore these alternate hosts serve little purpose as a source of infestation of citrus psylla in citrus orchards.

During the course of observations on bheria plants (Chloroxylon swietenia Dc.) in Bodra forest area of Bhandara district, it was observed that the growing shoots of bheria were severely infested by psyllids. The specimens of these psyllids were identified as citrus psylla (Diaphorina citri Kuw.)

Bheria plants grow in plenty in forest areas of Vidarbha region. Considering their wide distribution and abundance in this tract, they appear to be very important alternate host for citrus psylla. Like citrus, these plants are ever-green and can provide shelter and food to this pest all the year round and help for the multiplication of this pest.

In normal years, citrus psylla causes minor to moderate type of damage and occasionally assumes epidemic form causing severe damage to citrus plantation. The causes of such epidemics, however, remained obscure until today. During the year 1969, the large scale multiplication of lemon butterfly pest on bheria plants gave rise to severe epidemic of this pest and caused considerable damage to citrus crop (Thakare and Borle, 1969). It is, therefore, likely that the citrus psylla like lemon butterflies, might be multiplying on large scale on bheria plants in forest areas and migrating from there to citrus orchards in the years of epemics.

It is, therefore, felt that bheria plant is possibly the most important alternate host for citrus psylla. The regular observations on the pest activity on bheria plants in forest areas might therefore be useful to citrus growers to predict likely incidence of citrus psylla well in advance to synchronise control measures with subsequent pest activity on citrus plantation.

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