

TIP-BURN OF PIPER BETLE IN THE CENTRAL PROVINCES

TIP-BURN, a physiological disease of *Piper betle*, has been observed to cause considerable damage to the crop in this Province during the hot and dry months. The disease is characterised at first by wilting of the tissues at the extreme tips or sometimes at the margins, followed later by a browning and death of the tissue (Fig. 1). These dead and brown-coloured patches later turn hard and brittle and



FIG. 1. Tip-burn of *Piper betle*

are often broken or torn. A part or the whole of a leaf may succumb to this disease. Unlike fungal or bacterial infections the diseased leaves do not drop off but remain attached to the vines in a flaccid condition. Young and immature leaves are more severely affected than the old and mature ones. *Kapuri* variety of pan, whose leaves are of softer and thinner texture, has been observed to be highly susceptible to this disease than *gangeri*, *kakher* and *bangla* varieties with thicker leaves. *Bangla* variety of pan has been observed to be most resistant of all the varieties under observation. It has been further noticed that

leaves on the vines affected with foot-rot disease (*Phytophthora parasitica* var. *piperina* Dast.) with poor root system succumb more readily to tip-burn than those on healthy plants.

The disease is caused by excessive loss of moisture from the leaves due to hot and dry weather conditions which prevail during the months of March to June in this Province. It is first observed towards the end of March or beginning of April and reaches to its maximum severity about the middle of May. The incidence of the disease is not marked after the rains set in. Repeated isolations from the diseased portions have given negative results about the presence of any pathogenic micro-organism.

It has been worked out and experimentally shown that this tip-burn disease could easily be kept in check or its incidence considerably reduced if the *barejas* (pan-gardens) are properly shaded at the top, the vines are lowered latest by the second week of March and the garden is kept moist by adequate irrigation during the hot and dry months.

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July 21, 1944.

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