

When the systemic infection has taken early, the growth of the entire plant is checked, stunted and only small leaves may be formed.

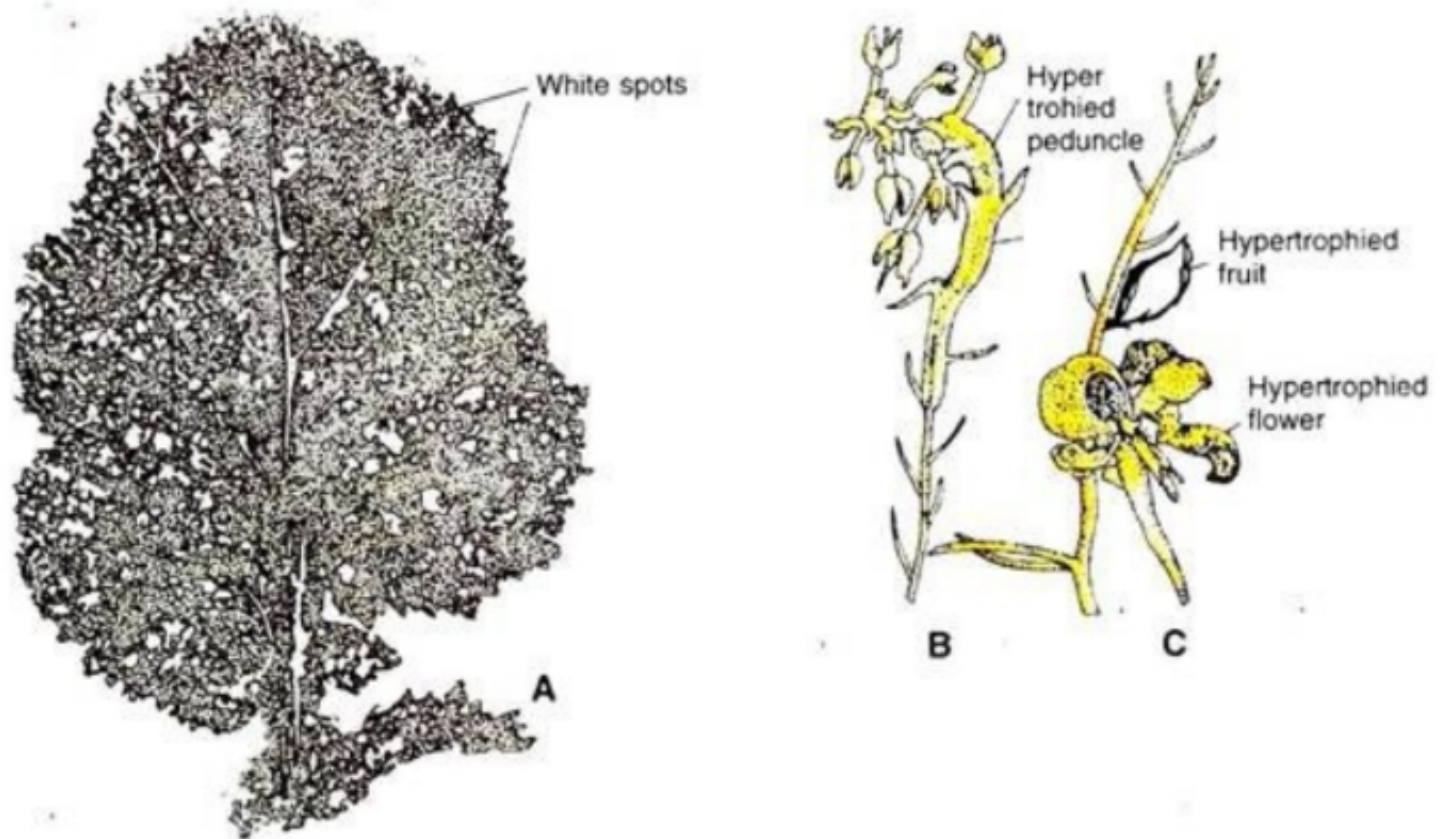


Fig. 22.3. Symptoms of white rust disease on leaves (A) and inflorescence (B and C).

The stem and the axis of the inflorescence may get twisted appearing in a zigzag sequence. Normal dormant buds are stimulated and grow into lateral shoots.

The causal organism *Albugo Candida* (Lev.) Kunze or *Cystopus candidus* Lev. is an obligate parasite.

Disease Cycle:

The primary infection occurs due to oospores perennating in the soil or due to mycelium perennating on perennial hosts. These serve as primary inoculum when the environmental conditions are favourable.

Oospores germinate in presence of water to form a vesicle in which a large number of zoospores are formed. These zoospores swim in a

film of water and land on the suitable host, germinate by germ tubes, enter the host and establish infection. The mycelium in the host is intercellular with globose haustoria.

Soon the mycelium after absorbing nutrients and food materials from the host, accumulates below the lower epidermis. Conidiophores, which are clavate, and formed at the tip of hyphae, begin to produce conidiosporangia in basipetal succession. The pressure of these breaks open the lower epidermis and white rust symptoms become apparent on the leaves.