Forest Health Protection, Southern Region

COTTONWOOD RUST,

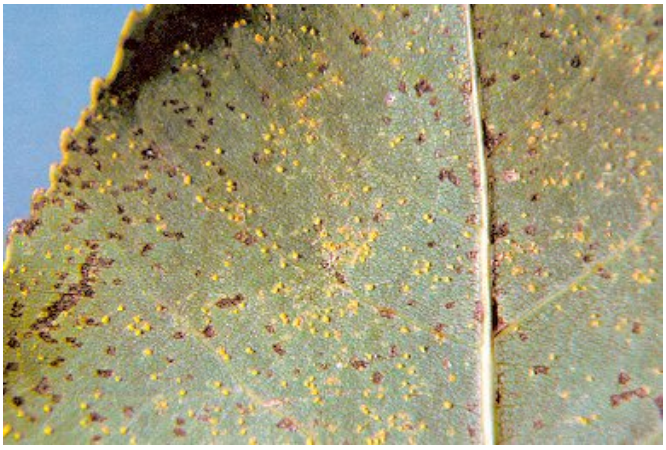
caused by *Melampsora medusae*

Importance. - All sizes of cottonwood are affected, but cottonwood rust is particularly severe in plantations and nurseries. Heavy infection and subsequent defoliation may kill trees. The rust may also act as a predisposing agent to other diseases. Affected trees may be partially or completely defoliated.

Identifying the Fungus. - Yellow or orange pustules, containing spores, form on the under-surface of the leaves in midsummer. These are replaced by dark brown fungal growths in the fall.

Biology. - The orange pustules (uredia) are the summer reproductive state of the fungus. They are followed by dark brown pustules (telia) which develop in fall and winter. In the South, the alternate host (larch) is not present in the forest, and the fungal life cycle is reduced to the urediaurediospore cycle only. Some families are immune to rust infection and disease-free trees or groups of trees often occur in the midst of other heavily infected trees.

Control. - Resistant varieties of cottonwood are used to minimize damage. Generally, no control is attempted in forest stands.



Rust infected cottonwood leaf.