

ABSTRACT

The net assimilation rates of leaves from Soyabean, Tobacco, Eggplant and Aralia, grown at different potassium levels were investigated.

Two methods of determining net assimilation rates were employed; the half-leaf method was first used and later carbon dioxide consumption was measured by an infra-red gas analyser. The results obtained by the two methods agree very closely.

Potassium and nitrogen contents of leaf tissues influenced the net assimilation at particular ages and for all four plant species. However, leaf age was the dominating factor influencing the net assimilation rates. In addition, net assimilation rates were also related to the rate of leaf expansion and leaf chlorophyll contents in Tobacco.

Some of these normal processes in the leaf could be influenced by the removal of floral and lateral buds.