

Ecophysiological Characteristics in Relation to Leaf Photosynthesis and Shoot Production of *Dendrocalamus latiflorus*

The study on ecophysiological characteristics in relation to leaf photosynthesis and shoot production of *D. latiflorus* was carried out at The Royal Pangda station, Chiangmai Province. Six different treatments were applied to *D. latiflorus* including control, covered soil with plastic bag, covered soil with bamboo leaves, watered, covered soil with plastic bag and watered, covered soil with bamboo leaves and watered. Variations in gas exchange characteristic namely photosynthetic rate, stomatal conductance, and transpiration rates, including water use efficiency and shoot production were investigated.

The results revealed that gas exchange characteristics, water use efficiency, and shoot production were quite varied among treatments and month. Seasonal variations of gas exchange characteristics, water use efficiency, and shoot productions of all treatments were observed. Gas exchange characteristics and shoot production measured in the dry season were higher than in the wet season. However, water use efficiency observed in the current study was higher in the wet season than those measured in the dry season. *D. latiflorus* was covered with bamboo leaves exhibited the highest gas exchange characteristics and shoot production compared to the other treatments.