

WEED INFESTATION AND GROWTH IN AN UPLAND RICE-TREE ASSOCIATION

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ABSTRACT

An study was conducted at the Central Luzon State University College of Agriculture Experimental Farm, Nueva Ecija, Philippines from June to August 1991 to investigate the weed infestation and their growth in tree-rice associations (agroforestry systems). There was 10 treatments consist of three tree species (*Gliricidia sepium*, *Acacia auriculiformis* and *Acacia mangium*), each under two pruning practices, intercropped with upland rice (UPRI-7). Sole trees and sole rice served as controls. Layout was a RCBD replicated thrice. Upland rice was sown in between 10-month-old tree rows at the onset of rains. Tree side branches in selected treatments were pruned, and pruned leaves were uniformly scattered in the rows. Results showed that weed infestation and growth were much lower in the agroforestry (30-38%) and monoculture tree (18-28%) plots compared with that of the sole rice plots. Between pruned and unpruned treatments, lowest weed dry biomass was obtained from pruned plots at the early stage as a result of application of pruned leaves. At the later stage, lowest weed biomass was obtained from unpruned plots and this could be attributed to increased competition with rice and the gradual increase in shade. Among tree species, relatively more effective weed suppression was noted in *A. auriculiformis* plots in both pruned and unpruned conditions as compared with other two species.

KEYWORDS: Weed; infestation; growth; tree species; tree pruning; rice-tree association; Philippines.

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