BIOMASS AND NUTRIENT ACCUMULATION OF AN EARLY SUCCESSIONAL SHRUB SPECIES (*Zizyphus oenoplia*) IN AN UPROOTED RUBBER FIELD AT KAMBURUPITIYA

K K I U Aruna Kumara, U Wickramasinghe and R Senaratne
Department of Crop Science, Faculty of Agriculture, University of Ruhuna

Restoration of degraded ecosystems has become a matter of great concern. Early successional species play a key roll in the process of restoration. Therefore here a study was undertaken to assess the accumulation and partitioning of biomass and nutrient in widely occurring early successional shrub species, namely Zizyphus oenoplia (Eraminiya) of varying ages (i.e. 4, 6 and 8 years). The experiment was conducted at the faculty of Agriculture, University of Ruhuna, Mapalana, Kamburupitiya, during March-August, 2000. Here, four plots were selected for each age class and four plants were sampled for each plot and their distribution of dry matter and major nitrient (NPK) in stem, branches and leaves were measured in each plant.

Findings clearly indicate that majority of biomass was concentrated in plant stem and as the age progressed, this proportion is increased. These results further indicate that the biomass allocation to the leaves was high in young ages and it is decreasing as the age progressed. Total biomass of plant after 4, 6 and 8 years was 902, 2602 and 4552 g respectively.

Results also show that major nutrient content in leaves, branches and stem were high in early stages of the growth and decreasing as the age progressed. Percentage of N. P and K in leaves at 4 years were 2.91, 0.116 and 1.54 respectively. But after 8 years N. P and K content were 2.36, 0.093 nd 1.275% respectively, show a decreasing rend of concentration of major nutrient in leaf tissues. Stem and branches show the same pattern of nutrient partitioning as the plant getting matured.