

SOME ASPECTS OF WEED-CROP INTERACTION IN  
SELECTED FOOD LEGUMES

By

PRIYANTHA BANDULA KODIKARA

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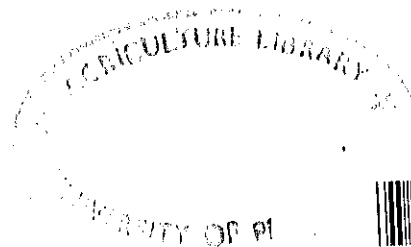
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**ABSTRACT**

Studies were conducted to determine critical weed free period and identify the effect of natural weed populations on growth and yields of mungbean, cowpea and groundnut, in the major agricultural seasons of Sri Lanka. The treatments consisted of maintaining plots weed free upto second trifoliate, fourth trifoliate, flowering, pod setting and pod maturity stages in the selected crops. Unweeded plots were maintained as control treatments. Plant growth and development were lowest when weeds were not removed. In mungbean and cowpea, a weed free period upto the second trifoliate stage facilitated optimal plant growth, development and higher yields. In contrast groundnut required a weed free period upto flowering, for optimal growth, development and higher yields. The effect of weeds on yield components was similar in the tested species, where the number of pods per plant was identified as the yield component significantly affected by weed competition. There was no seasonal difference in the duration of critical weed free period in the tested crops. Grasses were the most persistent weeds while sedges were reduced with a single weeding. The results are discussed in terms of optimal weed management for the tested crops.