

adding organic matter @ 20.6 t/ha (371 kg N/ha) through litter fall.

368. Prasad, Arjun. 1994. Alley cropping in *Leucaena leucocephala* with field crops for sustained productivity. Proc. Internl. Conf. on "Sustainable Development of Degraded Lands through Agroforestry in Asia and Pacific", New Delhi, Nov. 25-30, 1994, Vol. I: 471-478.

Presents results of an experiment, conducted during 1981-90, on alley cropping with *subabul* Hawaiian giant K-8 (*Leucaena leucocephala* (Lam) de wit) and annual field crops of sorghum CSH-5 (*Sorghum bicolor* L.), Pigeonpea local (*Cajanus cajan* (L) Mills) and blackgram T-9 (*Phaseolus mungo* L.). The results revealed that growing of *Leucaena* with field crops is feasible under rainfed conditions. *Leucaena* spaced 3.75 m apart reduced the grain yield of sorghum, sorghum + pigeonpea and pigeonpea + blackgram by 12.4, 13.6 and 16.9% respectively which is less as against expected reduction of 20% on space occupied basis. The higher biomass production and maximum net return were recorded when *Leucaena* was grown with sorghum + pigeonpea followed by pigeonpea + blackgram. Growing of *Leucaena* enhanced the soil fertility. On an average, *Leucaena* increased the organic carbon from 0.37 to 0.43%, available N from 163 to 190, P from 8 to 14.9 and K from 460 to 500 kg/ha.