

243. **Gupta, R.K., Shukla, D. and Pratap Narain. 1983.** Quantification of cropping management and conservation practices adopted for erosion control and fruit crops in sloping lands. Paper Summaries, Internl. Conf. on "Soil Erosion and Conservation", Honolulu (Hawaii), USA, Jan. 16-22, 1983: 45-46.

Studies were conducted (1976 to 1980) on runoff plots 20 m x 5 m at 11% slope and site

clay loam soil. Three rhizomatous cash crops viz. turmeric, ginger, colocassia and cowpea were planted at 50 cm contour lines and 30 cm plant to plant distance. Ten tonnes of farm yard manure was applied with preparatory tillage and crops were weeded 3-4 times. Earthing up and application of 10 tonnes/ha mulch of *Shorea robusta* were important conservation practices for rhizomatous crops. Pomegranate fruits were grown at 2.5 x 2.5 m without farm yard manure and with and without weed competition comprising *Cynodon dactylon* and *Ageratum conyzoides*. One plot was kept as spaded fallow for comparison. *Cymbopogon citratus* provided 100% canopy throughout the season, showed negligible soil and water loss and hence the lowest CP factors. The effect of covering interspaces with grasses in cultivation of pomegranate reduced soil loss from 13 tonnes to 0.2 tonnes/ha, lowering the CP factor considerably. The runoff and soil loss under rhizomatous crops varied between 5 to 7% and the soil loss was well within permissible limits (2-2.7 tonnes/ha).