harvesting, fertilizer use, use of mulch, weed control, etc. have been discussed.

570. **Tyagi, P.C., Singh, P.N., Joshi, B.P. and Singh, Gurmel. 1992.** Integrated soil, water and nutrient management for sustained crop production. In: Abstracts, National Symp. on Maximising and Sustaining Crop and Animal Productivity by Modern Techniques, Banaras Hindu University, Varanasi, Oct. 14-17, 1992. *J. Nuclear Agri. & Biology* 21(3):196.

Presents results of studies on water and nutrient use in relation to sustainable crop production in western submontane Himalayan region. High yielding dwarf varieties of rice performed well under continuous saturation to submergence (512 cm) conditions throughout the growing season of the crop. 120 kg N/ha applied in splits (1/2 at the time of transplanting, 1/4 at the time of tillering stage and 1/4 at the time of panicle emergence stage and basal dose of 60 kg P_2O_5 and 30 kg K_2O/ha gave optimum yield (47-52 q/ha) of rice. Under rainfed conditions, impoundments of rain water upto 20 cm depth gave almost as good rice yield (40 to 45 q/ha) as under irrigated conditions. Soybean, intercropped with maize gave better total yield (2918 and 2905 kg/ha), canopy cover (>80%) and total LER (1.24 and 1.23), respectively. Irrigation scheduled at IW/CPE ratio of 0.9 + 120 kg N/ha for wheat, IW/CPE = 0.6 + 60 kg N/ha for barley, IW/CPE=1.0 + 200 kg N/ha for sugarcane and IW/CPE=1.0 alongwith 180 kg N/ha for potato yielding 4.8, 4.9, 106 and 14.7 t/ha, respectively were also found optimum for this region.