ABSTRACT: Investigation was carried out during the year 2013-14. About 48 dryland farms were randomly selected from sixteen villages of two tehsils in Nanded district of Maharashtra. Data were related to soybean output and input like human labour, bullock labour, machine labour, seed, manure, fertilizer and plant protection as resources. Cobb-Douglas production function was fitted to the data. The result revealed that partial regression co-efficient of area under soybean was 0.498 followed by that manure (0.175) positive at 1 per cent level and positive at per cent level, respectively. Partial regression co-efficient of bullock labour, machine labour and potash were positive but non-significant. Marginal product of area under soybean was 6.924 quintals followed by that of manure (0.182 q), plant protection (0.144 q), human labour (0.057q) and MVP to price ratio with respect to nitrogen was 11.10 followed by manure (6.64), area under soybean (3.04) and phosphorus (2.27). Optimum use of area under soybean was found to be 2.56 hectares and optimum use of plant protection was 2.69 litres.

KEY WORDS: Soybean, Resource productivity, Marginal productivity, Optimum resource