

RESEARCH PAPER

## Performance of herbal medicinal crops under sapotajatropha based three-tier agroforestry system

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**Abstract :** Field experiments were conducted to find out performance of herbal medicinal crops (basil, kalmegh and mint) under sapota-jatropha based three-tier agroforestry system at the Agronomy Farm (Block-E), ASPEE College of Horticulture and Forestry, Navsari Agricultural University, Navsari (Gujarat) during rainy season of 2011 and 2012. The experiments were laid out in Randomized Block Design with six treatments and four replications. Three medicinal plants *viz.*, basil (*Ocimum sanctum* L.), kalmegh (*Andrographis paniculata* Well.) and mint (*Mentha arvensis* L) were selected for the present study. The observation on fresh weight of plant/plot (kg), dry weight of plant/plot (kg) and economic yield (q/ha) was recorded higher under sole crop of basil, kalmegh and mint as compared to intercrop with sapota-jatropha in both the years. While basil (1.67), kalmegh (1.46) and mint (1.40) when grown as intercrop gave higher economic returns as compared to sole crop in 2011 and 2012.

Key Words: Agroforestry, Intercrop, Basil, Kalmegh, Mint, Economics

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