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Micro-environmental Changes Under Poplar Canopy and Effect on Yield of Inter-cultivated Crops

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Abstract: Tree pruning, an important tending operation in agroforestry, facilitates to minimize the above ground competition. Though tree growth was not much affected by the pruning and topping treatments, but crop yield was significantly influenced by the treatments and so was the meteorological parameters. Cultivation of coriander under different pruning treatments had significant effect on its growth. Maximum plant height, primary branches, secondary branches and yield were observed in 75% pruning with topping. On the other hand, highest umbel and umbellate were found in 75% pruning without topping. Similarly effect on growth of bottle gourd under different pruning treatments was observed. Vine length, fruit weight and fruits per vine were best observed in 50% pruning with topping, but yield was maximum recorded in 75% pruning with topping. These differences were due to the variation in meteorological parameters due to imposition of different treatments.

Keywords: Poplar, Pruning, Topping, Meteorological parameters, Coriander, Bottle guard, Productivity