



IMPROVEMENT OF SOIL CHARACTERS IN ORGANIC CULTIVATION OF MULBERRY *VIS-À-VIS* CHEMICAL BASED FARMING

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ABSTRACT

The sustained production of silk is adversely affected by the poor quality of mulberry leaf. In many a case, it is due to the inadequate application of chemical fertilizers in mulberry cultivation by small and marginal sericultural farmers, because of its escalating costs and non-availability in time. Since organic farming is gaining popularity of late, with its proven advantages, the present study was undertaken to assess the effect of application of different organic manures and biological inputs in mulberry cultivation and its effect on soil fertility. The required quantity of nutrients (NPK) for mulberry were supplemented to the soil through easily available organic sources *viz.*, farm yard manure (FYM), sericompost, poultry manure, neem oil cake, green manure, bio-inoculants [*Azotobacter* biofertilizer, vesicular arbuscular mycorrhiza (VAM), phosphate solubilizing bacterial biofertilizer (PSB)] and rock phosphate. There was significant improvement in the physical, chemical and biological properties of the soil after three years of organic supplementation leading to the enhancement in soil fertility. Thus, the present study confirms the possibility of adoption of absolute organic farming as an alternative method of mulberry cultivation *in lieu* of chemical based farming for sustained quality leaf production.

Key words: Mulberry cultivation, organic farming, soil fertility.