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Principles, Practices, and Performance



editors

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CHAPTER 18

PERFORMANCE OF DRIP FERTIGATED BANANA UNDER POLYETHYLENE MULCHING

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ABSTRACT

The study in this chapter evaluated the effects of polyethylene (PE) mulching on the yield and quality of drip fertigated banana cv. Grand Naine. The yield (97.5 t/ha) was significantly higher in T2 (Drip irrigation + Fertigation + Micronutrient foliar spray + Bunch spray) plots with significantly higher bunch weight (32.1 kg/plant), hands per bunches (10.5) and more number of fingers per bunch (201) as compared to other treatments. Moreover, the quality of the fruit in terms of TSS (19.9) and acidity (0.26%) was the best in T2 with a greater shelf life. A peculiar characteristic of earliness in crop growth was observed in T1 (irrigation + Fertigation + Micronutrient foliar spray + Bunch spray+ mulching), where mulching was integrated with drip fertigation that reduced the days to shooting (215.5) and harvest (316.9). On the other hand, T5 (control-flood irrigation) with the conventional method of cultivation practices showed late maturity (365.4 days) or longer crop duration. The least performance with respect to growth, yield, and quality of banana was also observed in the control plots. Hence, T2 with all inputs except mulching can be considered as the best treatment in the present investigation.

18.1 INTRODUCTION

Irrigated agriculture is a productive sector that presents a high demand for water. Banana is a herbaceous perennial consuming a higher quantity of