

Effects of Soil Managements and Fertilizer Applications on Sloping Mango Orchard¹

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Abstract

The observations were conducted from July, 1988 to June, 1993. The objective of this program was to study the effect of liquid fertilizer with drip application and soil management by different mulching material (original wild grass and bahiagrass) on sloping mango orchard. Three years old of Mango fruit trees were used as test material and normal flowering of mango were observed at second year after treatment.

The results of this observation were summarized as follows : mulching treatment could gradually improve the soil fertility year by year (significant difference was found three years after the treatment). Soil pH value, organic matter, potassium, calcium , magnesium and soil moisture content were higher in mulching treatment than cleaning culture (no mulching treatment). The flowering rate and yield were affected slightly by different original growth of fruit tree. Growth vigor of mango was better for liquid fertilizer with drip application lication treatment than solid fertilizer with man application treatment.

It is concluded that the orchard on slopeland with mulching grass was given more profit such as fruit tree growth , soil fertility, water and soil conservation. The original wild grass is a good mulching material, but it needs management. Liquid fertilizer with drip application was acceptable and convenient for sloping orchard to be used, but it need some equipment such as plastic pipe, and drip holes should be maintain carefully.

Keywords : mango, slopeland, soil management, drip application

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