

Relationships Between Rotation Patterns and Soil Properties, Occurrences of Pest and Disease, and Crop Yielding Potential

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ABSTRACT

Results showed that crop season in each rotation pattern had no significant effects on the changes of soil pH. However, Higher soil pH values were found for Pattern A and B than that of Pattern C and D. Lower organic matter content in the soil was also found after the harvesting of winter crops.

Highest production value were found for corn (NT\$76,540 per hectare), followed by rice (NT\$74,626 per hectare) and soybean (NT\$56,960 to 57,800 per hectare) in the first crop season. Same trend of net income was also found. Sorghum and corn had the highest production values and net incomes in the second and winter crop seasons, respectively.

The highest net income of NT\$56,176 per hectare was resulted from the Pattern B (soybean—rice—corn), while the lowest net income of NT\$ 42,932 per hectare was obtained from the Pattern A, the conventional pattern popular in this district (rice—rice—soybean).

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