Comparison of Crops Yield and its Profit as Influenced by Organic and Conventional Farming

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An experiment was carried out to evaluate the feasibility of practing organic farming in southern Taiwan during the period of 1988-1992. The experiment was conducted at Chi-shan, Kaohsiung. A mixture of slate, shale and Sandtone alluvial soils was used in the experimental plot. Three farming systems, i.e. organic farming (OF), conventional farming (CF) and intermediate farming (IF) with two rotation systems were compared with regard to yielding capacity and its profits. The results of 4-year experiments are as follows :

Under the organic farming system, the yields of cabbage , radish and sweet corn at fall crop season were respectively 10.8-24%, 12.3-15.5%,and 5.5-6.9% lower than those grown under the conventional farming system. However, at the yields of organically grown sweet corn and vegetable soybean as well as bush bean which were planted after the harvest of rice were much higher than those grown by the conventional farming. The yield of organic rice in summer crop season was significantly lower than that grown under the conventional farming system.

It was observed that input for organic production of crops was 2-4.2 times higher than that for conventional farming in term of costs of organic fertilizer and labor, in both rotation systems, resulted in lower income for organic farming so far as the present experimnt is concerned.

It is concluded that under the organic farming system where only organic fertilizer was applied , the yielding capacity was far from satisfactory. It is suggested that a small amount of chemical ferilizer should be applied in the organic farming farm. In other words, the intermediate type of farming system (i.e. organic plus chemical) is more suitable to be applied at the initial stage of shifting the conventional farming system to organic farming system.

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