

## Effect of the Amount of Nitrogen Application with Sesibania Interseason Cropping in Summer on the Yields of Fresh White Corn Ears under the Long-term Non-tillage Corn Cropping Field.

Mao-Shen Chang <sup>1</sup>

### Summary

The purpose of this study was to find out the reasonable amount of nitrogen application for the yields of fresh white corn ears under the long-term non-tillage cultivation with sesibania interseason cropping in summer on the late fall corn and spring corn crop was carried out at the experimental field since July 1995 to June 1996. The soil is described as belonging to Le according to the Land Capability Classification System. It is a silt loam derived from mixed alluvia of schist and slate, with incomplete drainage, low in CEC and shallow in soil depth of about 60 cm. SPD with four replications, non-tillage and tillage for mainplot, and three levels of nitrogen application for subplot were used at this experiment. The result showed that the productions of the above-ground part were 16.5-20.2t/ha and their N, P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O contents were in 130, 45 and 141 kg/ha, respectively. The qualities of the fresh corn ear which including ear length, diameter and weight, and the yields of fresh white corn ears were not significant difference in all treatments on both late fall corn and spring corn crop, they were better in late fall corn than in spring corn. The yields of fresh corn ears in late fall crop from non-tillage with sesibania mulching were 16,059-17,679kg/ha, increased by 7% as comparison to tillage with sesibania incorporation into the soil in 1995. In nitrogen application which the reasonable amount of nitrogen application was 100kg N/ha in both tillage and non-tillage. The yields of fresh ears in spring crop regardless of tillage or non-tillage were 12,920-13,060kg/ha in 1996. The reasonable

amount of nitrogen application was 150kg N/ha for tillage, but was 200kg N/ha for non-tillage.

**Key words** : Sesibania, Tillage, No-tillage, Vegetable white corn.

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<sup>1</sup>Associate Researcher of Taitung DAIS.