

Effects of Different Nitrogen Forms on the Growth of Heading Vegetables¹

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Summary

The basic objectives of this study (from fall crop, 1994 to spring crop, 1996.) were to evaluate the effects of different nitrogen form (NH_4^+ - N and NO_3^- - N) on the growth of Chinese cabbage 【*Brassica campestris* L. (Pekinesis group)】 and cabbage 【*Brassica oleracea* L. (Capitata group)】 , changes of pH value and organic matter contents in soil. The nitrate content in fresh plant were also examined.

The results showed that the the pH value of soil decreased with higher NH_4^+ - N (300 and 350 kg / ha for Chinese cabbage and Cabbage, respectively) application. The nitrate contents of Spring crop season plants was higher than that of fall crop season plants. In Chinese cabbage, the nitrate contents are generally lower, especially at fall crop. Significant correlation existed between the yield and nitrate content in the plant of both crops. Resulte appeared that the yield and profit was maintaind with lower NH_4^+ - N (200 kg / ha) application on chinese cabbage. The higher NH_4^+ - N application (350 kg / ha) should be used with precaution, although it might increase cabbage yield.

(Key words: Chinese cabbage 【*Brassica campestris* L. (Pekinesis group)】 、 Cabbage 【*Brassica oleracea* L. (Capitata group)】 from of nitrogen、 Nitrate content)

¹Research article No. 143 of Hualien District Agricultural Improvement Station. This experiment was supported in part by Council of Agriu clture 【Project number: 84-AST-2.5-FAD 13(4) and 85-AST-1.7-FAD-18(3)】

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