

Title	Identification of Package for Good Agricultural Practice (GAP) for the Cultivation of Head Cabbage for Optimum Yield, Quality and Food Safety (<i>Brassica oleracea</i> L. var. <i>capitata</i> L.)
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ABSTRACT

A field experiment consisting of three replications and 12 treatments were undertaken to determine the effects of different levels of nitrogen and plant spacing in a GAP production system using head cabbage at Maejo University, Thailand in 2010. Four levels of nitrogen; 0, 14, 16 and 18 kg per rai, with three different plant spacings (50 cm between rows x 30, 40 and 50 cm within rows) were laid out according to RCBD in a split plot arrangement.

In this study, yield per hectare for different levels of nitrogen was highly significant among plots when compared with the control (N=0). Nitrogen application level at 18 kg per rai produced highest yield of 62.8 tonnes per ha, while the control recorded the lowest yield of 42.4 tonnes per ha. However, plant spacing of 50 x 30 cm produced the highest yield of 63.6 tonnes per ha when compared to wider plant spacing of 50 x 50 cm, but head size was smaller. No interaction analysis was observed in the measured parameters but highest nitrogen level with wider plant spacing showed high levels of nitrate accumulation in cabbages.

In a separate experiment, a comparative study of four pest control systems (control, IPM, BT and Abamectin) were undertaken in a RCBD to assess its efficiency and test the Maximum Residual Level (MRL) of pesticide in the produce. Results showed no significant difference within the treated plots but they were however highly significant from the untreated plot (control). No pesticide residue was detected in the tested produce.

Keywords: head cabbage, nitrogen, plant spacing, head size, nitrate, pesticide residue