## RESPONSE OF CABBAGE, H'MONG MUSTARD AND BROCCOLI TO NITROGEN APPLICATION

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#### INTRODUCTION

Nitrogen (N) plays a key role in both crop productivity and environmental impacts, especially in vegetable production. From our survey in Lao Cai, we found that most of the

#### METHODS

The experimental treatments: 5 levels of N fertilizer application for each crop.

farmers applied inappropriate N rates for vegetables due to a lack of information specific to this area. To fill this information gap for some important vegetables (cabbage, H'Mong mustard

and broccoli) in Lao Cai province, we conducted a field trial from October 2015 to January 2016 at the Fruit and Vegetable Research Station in Bac Ha town, Bac Ha district, Lao Cai province.

#### N fertilizer application treatments (kg N per hectare)

|             | CABBAGE | H'MONG MUSTARD | BROCCOLI |
|-------------|---------|----------------|----------|
| Treatment 1 | 30      | 0              | 40       |
| Treatment 2 | 90      | 60             | 100      |
| Treatment 3 | 150     | 120            | 160      |
| Treatment 4 | 210     | 180            | 220      |
| Treatment 5 | 270     | 240            | 280      |



Field survey for selecting experimental site



Guide for field technicians for soil preparation



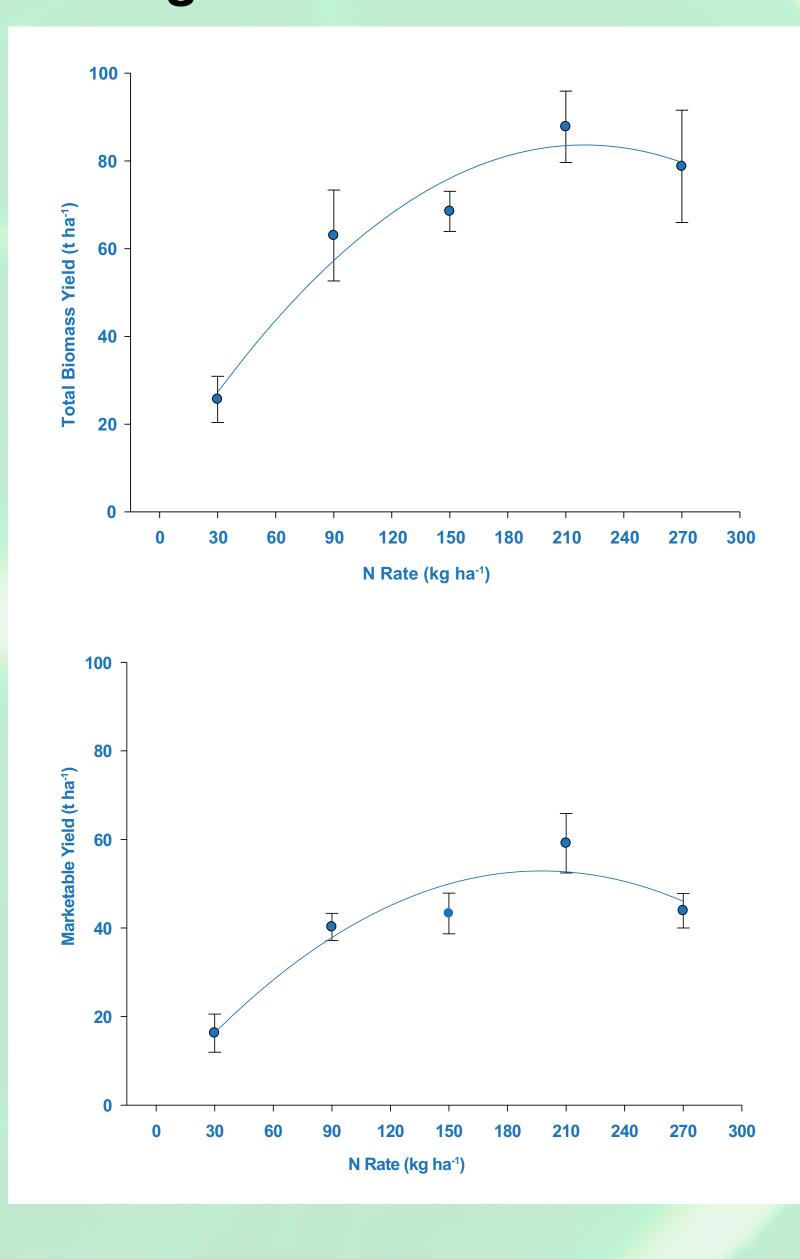
Vegetable planting



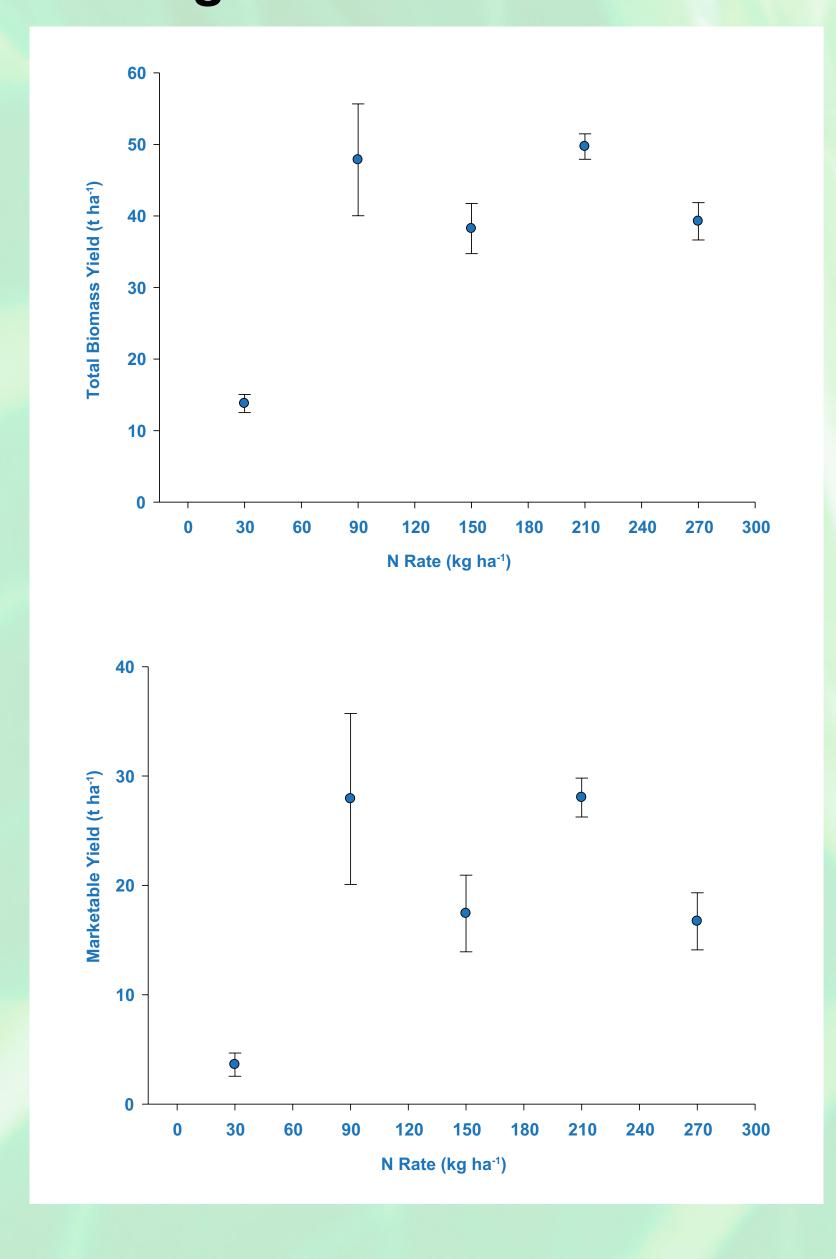
Field trial after fertilizer application

#### **RESULTS**

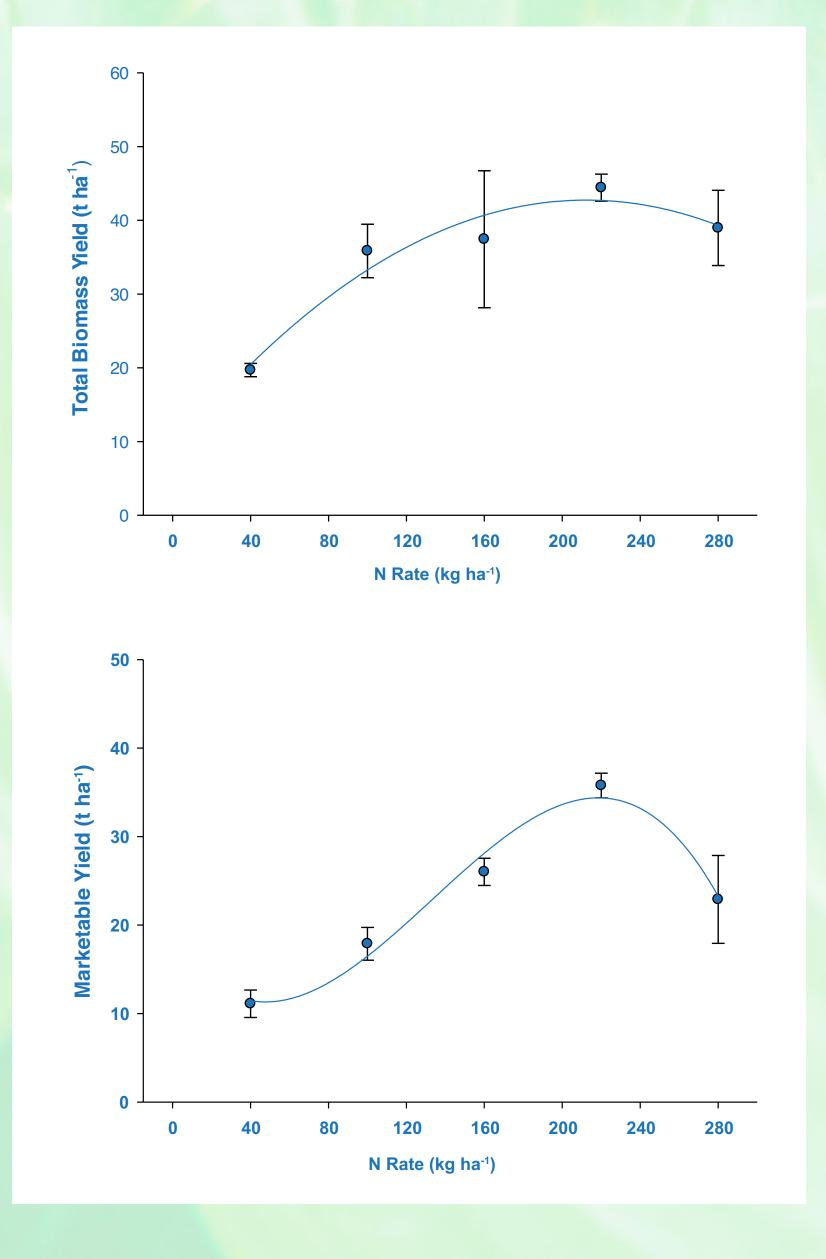
#### Cabbage:



#### H'Mong mustard:



#### Broccoli:



# CONCLUSIONS AND RECOMMENDATIONS

- 1. The suitable rate of N application for cabbage was probably about 210 kg N ha<sup>-1</sup> and for broccoli was 220 kg N ha<sup>-1</sup>.
- 2. The experiment must be repeated to estimate the effects of N application rates, as well as micronutrients on cabbage, H'Mong mustard and broccoli for the identification of the most suitable fertiliser applications for these vegetables.

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