

# Planting Date as a Potential Parameter for Sustainable Cotton Production in Myanmar

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## Introduction

- Cotton is of outstanding importance in Myanmar, being used for clothing, edible oil, and seed cake for fishery and dairy production
- Cotton is an important cash crop for small farmers, and substantially contributes to export incomes of the nation
- Cotton is seriously damaged by insect pests
- Yield are reduced by direct feeding damage and by quality reduction of fibres
- Insecticide sprayings are too expensive and applications difficult especially during periods of continuous light rainfalls
- Most of the important pest species exhibit a strong seasonality

## Hypothesis

- ➡ Planting dates adjusted to the seasonality of pests will reduce the incidence of crop growth and peaks densities of pests
- ➡ A time window of reduced pest population densities would increase cotton yields in Mandalay Division, the main cotton growing area in Myanmar

## Methods

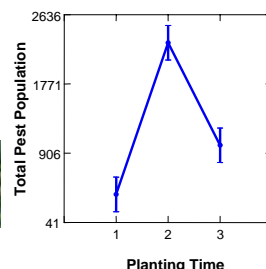
- Place - Lungyaw Cotton Research Farm, Myanmar
- Cultivar - Lungyaw-3
- Experiment - 3 planting dates with 3 replication (May, July, August) and 10 sample plant/plot
- Design - Randomized Complete Block Design
- Sampling - weekly intervals (pest and beneficial insects, plant growth parameters, yield, meteorological data)

## Results



Sucking pests Bugs Bollworms

Least Squares Means

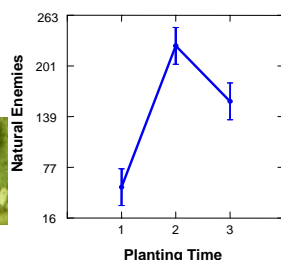


Planting date significant at  $p = 0,002$  for total pest incidence



Natural enemies

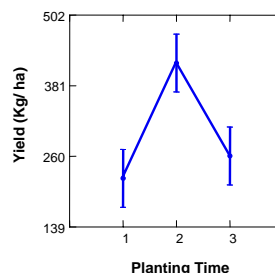
Least Squares Means



Planting date significant at  $p = 0,005$  for natural enemies



Least Squares Means



Planting date significant at  $p = 0,05$  for cotton yield

## Conclusion

Based on these data we recommend a planting date for cotton in Myanmar in July