

UNIVERSITI TEKNOLOGI MARA

**GROWTH INHIBITION OF LEGUME
COVER CROP,
Mucuna bracteata, BY PACLOBUTRAZOL**

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Final year project report submitted in a partial fulfilment of the
requirements for degree of
**Bachelor of Science (Hons.) Plantation Technology and
Management**

Faculty of Plantation and Agrotechnology

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DECLARATION

This final year project is a partial fulfilment of the requirement for a degree of Bachelor of Science (Hons.) Technology and Plantation Management, Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA.

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I hereby declare that I have checked the project and in my opinion, this project is adequate in terms of scope and quality for award of the degree of Bachelor of Science (Hons.) Technology and Plantation Management, Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA.

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ABSTRACT

The growth of legume cover crops (LCC) in field needs to be controlled as its excessive growth can affect the yield of main crop. Growth inhibition of *Mucuna bracteata* was studied following the application of plant growth regulator (PGR). The objectives of this study were to investigate the growth response of *M. bracteata* towards different concentrations of paclobutrazol (PBZ) and identify the optimum rate of PBZ for maintenance of this cover crop in field. Parameters investigated were the internode length, internode (stem) diameter, leaf size (area), relative chlorophyll content and number of branches at first fully developed leaf. All parameters were obtained weekly for a period of two months. The results show a positive outcome where PBZ successfully inhibited the growth of *M. bracteata* by reducing the size of leaves, the length of their internodes but this procedure increased the diameter of vines, the compactness of plant by emergence of more new shoots at nodes and increased the chlorophyll content in the leaves.