

EFFECTS OF ORGANIC FERTILIZER (CHICKEN MANURE) ON
GROWTH, FLOWERING AND FRUIT QUALITY OF
EGGPLANT (*Solanum melongena* L.)
GROWN ON BRIS SOIL

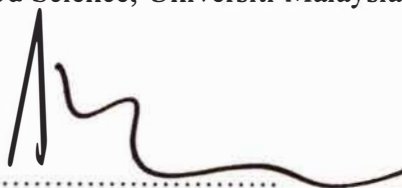
By
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Research Report submitted in partial fulfillment of
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DEPARTMENT OF AGROTECHNOLOGY
FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
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ENDORSEMENT

The project report entitled **Effects of organic fertilizer (chicken manure) on growth, flowering and fruit quality of eggplant (*Solanum melongena* L.) grown on bris soil** by **Zuliana binti Seliaman**, Matric No. **UK15462** has been reviewed and corrections have been made according to the recommendations by examiners. This report is submitted to the Department of Agrotechnology in partial fulfillment of the requirement of the degree of Science in Agrotechnology (Post Harvest Technology), Faculty of Agrotechnology and Food Science, Universiti Malaysia Terengganu.



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DECLARATION

I hereby declare that the work in this thesis is my own except for quotation and summaries which have been duly acknowledged.

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ABSTRACT

This study explored the effect of organic fertilizer (chicken manure) on growth, flowering and fruit quality of eggplant grown on bris soil. The application 20 tan/ha of organic fertilizer (chicken manure fertilizer) was found to give better growth development of eggplant. The observation for growth of eggplant parameter was taken weekly interval from week 1 until week 10. The measurements were taken on plant height, plant diameter, number of flower and number of fruit. The quality of fruits indicator for assessment are total soluble solid and pH. Applications of 20 tan/ha were the best growth on height and plant diameter of eggplants. This is because chicken manure was the best as far as sheer nutrients go which is rich in nitrogen; an application of chicken dung will grow some of the best application of eggplant. Applications of 15 tan/ha of chicken manure give the better result on number of flower. Compared to application of 10 tan/ha of organic fertilizer which best results on number of fruit. Fruit quality of eggplant specifies that the application of 20 tan/ha of chicken manure fertilizer was highest content of total soluble solid and pH value. This showed that the fruit able to mature rapidly compared to other treatment. So the study concluded that planting of eggplant required a high rate of organic fertilizer for good growth and quality of eggplant grown on bris soil.

ABSTRAK

Kajian ini mengenalpasti kesan penggunaan baja organik iaitu tahi ayam untuk pada pertumbuhan pokok, bunga dan kualiti buah terung yang ditanam di atas tanah bris. Penggunaan baja tahi ayam sebanyak 20 tan/ha memberikan pertumbuhan yang paling baik untuk pertumbuhan pokok terung. Pemeriksaan kualiti pertumbuhan pokok terung ini dijalankan selang 7 hari sekali bermula pada minggu pertama sehingga ke minggu sepuluh. Dalam kajian ini, pengukuran pertumbuhan pokok terung adalah berdasarkan indikator-indikator seperti ketinggian pokok, diameter batang, bilangan daun, bilangan bunga dan bilangan buah. Manakala pemeriksaan kualiti buah terung dikaji dari segi jumlah pepejal terlarut dan pH. Penggunaan baja sebanyak 20 tan per hektar menunjukkan kesan yang baik dari segi ketinggian dan diameter pokok terung. Ini kerana tahi ayam (baja organik) mempunyai kandungan nitrogen yang tinggi di mana ianya penting untuk pertumbuhan pokok terung. Jika dibandingkan dengan penggunaan 10 tan per hektar yang menunjukkan pertumbuhan yang baik untuk bilangan daun dan buah. Kualiti buah terung pula dilakukan selepas dituai dan dikaji dari segi jumlah pepejal terlarut dan pH. Penggunaan baja tahi ayam sebanyak 20 tan per hektar juga menunjukkan kandungan gula dan nilai pH yang tinggi di dalam buah terung. Ini menunjukkan buah tersebut mengalami proses kemasakan yang lebih cepat berbanding dengan jumlah penggunaan baja tahi ayam yang lain. Secara kesimpulannya penanaman terung memerlukan kuantiti baja organik yang tinggi untuk mendapatkan pertumbuhan dan kualiti buah yang baik.