

EFFECT OF NITROGEN ON GROWTH,
FLOWERING, FRUITING, AND QUALITY OF CHILLI
(*Capiscum annuum* L.) GROWN
ON BRIS SOIL

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FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
UNIVERSITI MALAYSIA TERENGGANU

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EFFECT OF NPK BLUE ON GROWTH, FLOWERING, FRUITING,
AND QUALITY OF CHILLI (*Capsicum annum* L.)
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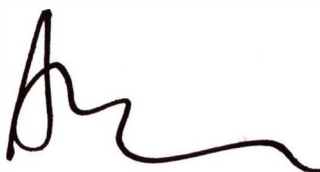
By
Wan Norzaini Binti Wan Isa

Research Report submitted in partial fulfillment of the requirements for the degree of
Bachelor of Science in Agrotechnology (Post Harvest Technology)

DEPARTMENT OF AGROTECHNOLOGY
FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
UNIVERSITI MALAYSIA TERENGGANU
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ENDORSEMENT

The project entitled **effect of NPK Blue on growth, flowering, fruiting and quality of chilli (*Capsicum annum* L.)** grown on bris soil by **Wan Norzaini Binti Wan Isa**, Matric no. **UK15831** 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 Bachelor 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 quotations and summaries which have been duly acknowledged.

Signature : 

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ABSTRACT

Fertilizer rate of NPK blue was tested for chilli planting. The experiment was carried out at Green House, Universiti Malaysia Terengganu (UMT). This study was conducted to evaluate the effect of NPK blue on growth, flowering, fruiting and quality of chilli (*Capsicum annum* L.) grown on bris soil. Nitrophoska Blue Special 12:12:17:2 have definite composition and major fertilizing nutrients such as nitrogen, phosphorus and potassium. There are four treatments which were used in this project. The result of the study indicated that fertilizer rate of NPK blue had no influence the plant diameter. The application of high rate of NPK blue have resulted in even better plant's height in treatment 4 than other treatments especially after 8th weeks of planting. The application of high rate of 800 kg/ha NPK blue (treatment 4) have resulted the high number of leaf than other treatments after 6th weeks of planting. On the 3rd week of planting, the plant of treatment 3 give higher number of flowers, followed by treatment 1, treatment 4 and lastly treatment 2. On the 4th weeks of planting, plant in treatment 3 give higher numbers of fruits followed by treatment 1, treatment 4 and treatment 2. Overall, fruit in treatment 4 had higher pH, followed by treatment 3, treatment 2 and treatment 1. Besides, fruit in treatment 4 also noticed that higher soluble sugar concentration followed by treatment 3, treatment 2 and treatment 1. Fruit diameter in treatment 3 noticed that higher fruit diameter followed by treatment 4, treatment 2 and treatment 1. The plant in treatment 4 showed better fruit length followed by treatment 3, treatment 2 and treatment 1. Generally, based on the parameter such as number of leaf, height of plant, number of fruit, and number of flower , the application of 800 kg/ha of NPK blue and 600 kg/ha of NPK blue gave best results to the treatments.

ABSTRAK

Kajian tentang kadar baja NPK blue telah dilakukan ke atas tanaman cili. Eksperimen ini telah dijalankan di rumah hijau, Universiti Malaysia Terengganu. Kajian ini dibuat untuk menilai kesan baja NPK blue ke atas pertumbuhan, pembungaan, buah dan kualiti cili (*Capsicum annum* L.) di atas tanah bris. Nitrophoska Blue Special 12:12:17:2 mempunyai kandungan tertentu dan antara nutrient yang utama ialah nitrogen, phosphorus dan potassium. Terdapat empat kadar baja yang digunakan di dalam projek ini. Hasil daripada kajian menunjukkan bahawa kadar baja NPK blue tidak mempengaruhi diameter tanaman cili. Penggunaan kadar baja NPK blue yang tinggi memberi keputusan yang terbaik pada rawatan 4 berbanding rawatan lain terutamanya selepas 8 minggu penanaman cili. Penggunaan baja NPK blue 800 kg/ha (rawatan 4) memberikan nilai tertinggi pada bilangan daun berbanding rawatan lain selepas 6 minggu penanaman. Pada minggu ke-3 penanaman, tanaman dalam rawatan 3 mencatat bilangan bunga yang tertinggi diikuti rawatan 1, rawatan 4 dan rawatan 2. Pada minggu ke-4 penanaman, tanaman dalam rawatan 3 mencatat bilangan buah yang tertinggi diikuti rawatan 1, rawatan 4 dan rawatan 2. Cili dalam rawatan 4 mempunyai nilai pH yang tertinggi diikuti rawatan 3, rawatan 2 dan rawatan 1. Selain itu, cili dalam rawatan 4 juga mencatat jumlah pepejal terlarut berbanding rawatan lain. Diameter cili dalam rawatan 3 mencatat nilai yang tinggi. Cili dalam rawatan 4 menunjukkan nilai yang baik bagi panjang buah diikuti rawatan 3, rawatan 2 dan rawatan 1. Secara keseluruhan, berdasarkan kepada parameter seperti bilangan daun, panjang pokok, bilangan buah dan bilangan bunga, penggunaan baja NPK blue sebanyak 800 kg/ha dan 600 kg/ha memberikan keputusan yang terbaik kepada tanaman cili.