635.652 C12 1991

## RESPONSE OF BUSH SHAP BEARS TO DATED MOISTURE STRESS

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Indang, Cavite

April 1991

# RESPONSE OF BUSH SNAP BEANS TO DATED MOISTURE STRESS

An Undergraduate Thesis

Submitted to the Faculty of the

Don Severino Agricultural College

Indang, Cavite

In Partial Fulfillment

of the Requirements for the Degree of

Bachelor of Science in Agricultural Engineering

Major in Soil and Water Management

Response of bush snap beans to dated moisture stress 635.652 C12 1991 T-1194

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April 1991

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Thesis of : ETHEL D. CALABIA

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DATED MOISTURE STRESS

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#### ABSTRACT

CALABIA, ETHEL DIMAPILIS, Don Severino Agricultural College, Indang, Cavite, April, 1991. <u>"Response of Bush Snap Beans to Dated Moisture Stress"</u>. Adviser: Engr. Cesar C. Carriaga.

A study was conducted to determine the effects of moisture stress at different growth stages of bush snap beans.

Degree of stress and crop growth stages served as the basis in the treatments used. Treatments were non-stress in any stage, 1-day, 2-day, 3-day stress at vegetative, flowering and maturity stage.

Results of the study revealed that the growth of snap beans was affected by the different treatments used. Non-stressed plants gave the highest height of 53.96 centimeters at maturity stage. It was followed by plants stressed in 1-day at flowering stage, plants stressed in 1-day at vegetative stage, plants stressed in 1-day at vegetative stage, plants stressed in 2-days at vegetative stage, plants stressed in 3-days at maturity stage, plants stressed in 3-days at maturity stage, plants stressed in 3-days at vegetative stage, plants stressed in 2-days at flowering stage, and plants stressed in 3-days at flowering stage, and plants stressed in 3-days at flowering stage with a length of 53.47, 50.51, 45.68, 42.43, 38.04, 38.03.

34.99, 31.88 and 31.8 centimeters, respectively.

The yield of snap beans was affected by stress at different growth stages. Plants stressed in 1-day at maturity gave the highest yield next to non-stressed with a mean of 1.4967 and 1.7040 tons per hectare, respectively. Lowest yield was observed during the flowering stage for the treatment stressed in 3-days, thus, flowering stage was the most critical growth stage of bush snap beans.

Highest mean reduction in yield was obtained from plants stressed in 3-days at flowering stage and lowest yield reduction was observed at the maturity stage stressed for 1-day.

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# RESPONSE OF BUSH SNAP BEANS TO DATED MOISTURE STRESS\*/

#### ETHEL D. CALABIA

1/ An undergraduate thesis presented to the faculty of the Don Severino Agricultural College, Indang, Cavite in partial fulfillment of the requirements for graduation with the degree of Bachelor of Science in Agricultural Engineering (BSAE). Major in Soil and Water Management. Contribution Ag. Eng'g No. 91045-018. Prepared under the supervision of Engr. Cesar C. Carriaga.

#### INTRODUCTION

### Nature and Importance of the Study

Snap beans (Phaseolus vulgaris, Linn.) is a leguminous crop that thrives best in sandy loam to clay loam soil with good drainage and pH ranging from 5.5 to 6.8 (Bautista, 1977). It is nutritious for it contains 6 to 8 percent protein for the green pods, 17 to 35 percent protein when dried and 300 to 350 calories per gram of edible portion. Low production causes it to become expensive. The reasons behind are water, soil and climatic limitations and poor technology used by farmers.

Proper irrigation is needed to produce good quality