DIFFERENT LEVELS OF SLUDGE AND FHOMOREMOD UNDER DRIP HERIGATION SYSTEM

EVANCELINE LINOVA

SCHOOL OF ENGINEERING

DON SEVERING CONTOURAL COLLEGE

Indexed Conto

April 1396

GROWTH RESPONSE OF CHRYSANTHEMUM AS AFFECTED BY DIFFERENT LEVELS OF SLUDGE AND PHOTOPERIOD UNDER DRIP IRRIGATION SYSTEM

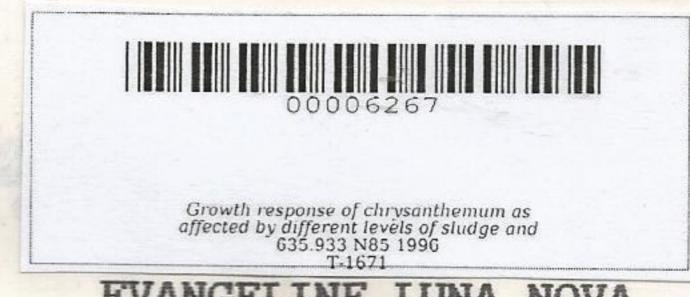
An Undergraduate Thesis

Presented to the Faculty of the
School of Engineering

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)



EVANGELINE LUNA NOVA
April 1996

Technical Trition of the following: Adviser,

ABSTRACT

NOVA, EVANGELINE LUNA. Don Severino Agricultural College, Indang, Cavite, April 1996. "GROWTH RESPONSE OF CHRYSANTHEMUM AS AFFECTED BY DIFFERENT LEVELS OF SLUDGE AND PHOTOPERIOD UNDER DRIP IRRIGATION SYSTEM".

Adviser: Engr. David Cero

The study was conducted at the greenhouse of the Crop Science Department of DSAC, Indang, Cavite from September to December 1995 to determine the growth response of chrysanthemum under different levels of sludge and different photoperiod under drip irrigation system.

Twelve treatments were used with five replications subjected to different levels of sludge and different photoperiod. The levels were: 1:1, 1:1.5, and 1:2 water to sludge ratio. The different photoperiod were: 8 hrs. daylength, 10 hrs. daylength, 12 hrs. daylength, and 14 hrs. daylength.

The result of the study showed that 1:2 level and 10 hrs. daylength gave the best response as far as the growth of chrysanthemum was concerned.

TABLE OF CONTENTS

	PAGE
BIOGRAPHICAL SKETCH	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	vii
LIST OF TABLES	×
LIST OF FIGURES	xi
LIST OF APPENDIX TABLES	×ii
LIST OF APPENDIX FIGURES	×iii
INTRODUCTION	1
Importance of the Study	3
Objectives of the Study	4
Time and Place of the Study	4
Scope and Limitation of the Study	4
REVIEW OF RELATED LITERATURE	5
MATERIALS AND METHODS	10
Materials	10
Methods	10
Field Preparation	10
Housing Preparation	10
Transplanting	11
Cultural Management	11
Sludge Application	11
Pest and Disease Control	11
Irrigation	11

Data Gathered	13
Experimental Design and Analysis	14
Experimental Layout	15
RESULT AND DISCUSSION	16
General Observation	16
Light Intensity	16
Plant Height	19
Number of Days from planting to flower bud formation	24
Number of Flowers	25
Diameter of Flowers	27
Root Length	29
Depth of Water Applied	31
SUMMARY, CONCLUSION AND RECOMMENDATION	33
Summary	33
Conclusion	34
Recommendation	34
LITERATURE CITED	36
ADDENDICEC	27

LIST OF TABLES

Table		Page
1	Light Intensity	17
2	Height of Chrysanthemum Plants	21
3	Number of Days from Planting to Flower Bud Formation	25
4	Number of Flowers	26
5	Diameter of Flowers	28
6	Root Length of Chrysanthemum	30
7	Depth of Water Applied	32

LIST OF FIGURES

Figure		Page
1	Experimental Lay-out	15
2	Light Intensity	18
За	Plant Height on the Different Levels of Sludge	22
3b	Plant Height on the Different Daylengths	23

LIST OF APPENDIX TABLE

Appendix	Table		Page
1	ANOVA on	Plant Height	38
2		the Number of Days from to Flower Bud Formation	39
3	ANOVA on	the Number of Flower	40
4	ANOVA on	the Diameter of Flower	41
5	ANOVA on	the Root Length	42
6	Physical	Properties of Soil Used	43

LIST OF APPENDIX FIGURES

Appendix Figure	Page
1 General View of the Experiment	44
Chrysanthemum Plants Under 8-hour Photoperiod and Applied with 1:1 Level of Sludge	45
Chrysanthemum Plants Under 10-hour Photoperiod and Applied with 1:2 Level of Sludge	46
INTRODUCTION	
a large genus of annual and perennial plants native	
chrysanthemus have alternate; strongly acented leave flower, heads consisting of fertile disk flowers in center and petal-like ray flowers around the out	
Some species have been cuitivated for so many cent	uries

GROWTH RESPONSE OF CHRYSANTHEMUM AS AFFECTED BY DIFFERENT LEVELS OF SLUDGE AND PHOTOPERIOD UNDER DRIP IRRIGATION SYSTEM¹

by

EVANGELINE L. NOVA

An undergraduate thesis presented to the faculty of the School of Engineering of the Don Severino Agricultural College, Indang, Cavite in partial fulfillment of the requirements for the degree of Bachelor of Science in Agricultural Engineering (BSAE) major in Soil and Water Management. Contribution No. 95-038-033. Prepared at the School of Engineering (SE) under the supervision of Engr. David L. Cero.

INTRODUCTION

TELL TELL VOIL BUT OWNER WITH LEE BETTON ON THE BETTON

nust that it is the

Chrysanthemum (Chrysanthemum morifolium) belongs to a large genus of annual and perennial plants native to temperate regions, mostly in Europe and Asia. Generally, chrysanthemum have alternate, strongly scented leaves and flower, heads consisting of fertile disk flowers in the center and petal-like ray flowers around the outside. Some species have been cultivated for so many centuries that their central flowers have become modified in size and shape. Growing chrysanthemum requires attention in providing the nutrient requirement, protection from pest and diseases, and irrigation.