

بسم الله الرحمن الرحيم
Effect of Using Treated Sewage Water In
Landscape Fields Using Pressurized Irrigation
أثر استخدام مياه الصرف الصحي المعالجة لري
المسطحات الخضراء
عن طريق الري بالضغط

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2002

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A thesis Submitted in Partial Fulfillment of the Requirements

for the Degree of

Master of Science in Agricultural Engineering

(Irrigation)

Department of Agricultural Engineering

College of Agricultural Studies

Sudan University of Science and Technology

April 2010

DEDICATION

*To my father, my mother, brothers, sisters and to all
who helped to bring this to reality.*

ACKNOWLEDGMENT

I am greatly indebted to my supervisor Dr. E LSADIG ELMAHDI Ahmed for his deep interest, close supervision and critics through out the preparation of this thesis special thanks to those who assisted me in away or another in the various stages of this study . Thanks to my colleagues and brothers for their moral support.

ABSTRACT

The experiment was conducted in Omdurman Nakheel public Garden. The objective of the study was the comparison between the use of normal domestic tap water and sewage treated water through pressurized irrigation in landscape fields at Omdurman Public Square. Drip irrigation was used irrigate the flowering shrubs and sprinkler irrigate was used irrigate the grass squares respectively.

The complete randomized block design was used. The experiment consisted of two treatments each replicated three times.

Parameters used to measure the performance of the grass were the dry matter content for the garden grass (nageel). The flowering shrubs parameters measured were, number of leaves and number of flowers and colour rate of the plant.

The experiments results showed that there is significant difference between the use of waste water and normal tap water in Bermuda grass dry matter content in all cuts. The ornamental shrubs (Euphorbia and Wenka) showed significant difference between waste water treatment and normal tap water in the number of leaves emerged, the number of flowers produced and the colour in intensity. No difference in emitter performance in both water treatment. According to these results the use of treated waste water is recommended in irrigation of landscape yards.

الخلاصة

أجريت تجربة في حديقة النخيل العامة بأمر درمان وكان الهدف من هذه الدراسة المقارنة بين استخدام ماء الصنبور العادي ومياه الصرف الصحي المعالجة من خلال الري بالمضغوطات لرى الحدائق فى حديقة امدرمان العامة. تم استخدام الري بالتذقيط لرى الشجيرات الزينه والرى بالرش لرى المساحات العشب الاخضر. تصميم المربعات العشوائية الكاملة. واحتوت التجربة على معاملتين وكل معاملة تم تكرارها ثلاث مرات.

المعايير المستخدمة لقياس مستوى عشب الحديقة كانت محتوى المادة الجافة لعشب الحديقة (النجيله). وكان معيار قياس اداء الشجيرات المزهره من خلال عدد الاوراق والزهور ومعدل كثافة اللون.

أظهرت نتائج التجارب أن هناك فرقا معنويا بين استخدام مياه الصرف الصحي ومياه الصنبور العادية في عشب برمودا فى محتوى المادة الجافة في كل الحصادات فى شجيرات الزينه. (الفربيون والوينكا) أظهرت فرقا معنويا بين مياه الصرف المعالجة ومياه الصنبور العادي في عدد من المستويات: عدد الوراق، عدد الزهور، معدل كثافة اللون لا فرق في الاداء بين مياه الصرف الصحى المعالجة ومياه الصنبور العادية على حد سواء فى اداء الرشاشات والذقات. ووفقا لهذه النتائج نوصى باستخدام مياه الصرف الصحى المعالجة فى رى ميادين حدائق الزينه.

LIST OF CONTENT

Contents	Page
Dedication.....	i
Acknowledgement.....	ii
English abstract.....	iii
Arabic abstract.....	iv
List of Content.....	v
List of table.....	viii
List of figure.....	ix
Chapter One: Interdiction	
(1.1) Objectives.....	4
Chapter Two: Literature Review	
(2.1) Waste water.....	5
(2.1.1) History of using waste water.....	6
(2.1.2) Waste water constituents.....	6
(2.1.3) Waste water treatment.....	9
(2.1.3.1) Preliminary waste water treatment.....	9
(2.1.3.3) Secondary waste water treatment.....	10
(2.1.3.4) Final water treatment.....	11
(2.1.3.5) Advanced water treatment.....	12
(2.1.3.6) Disinfection.....	12
(2.1.4) Sudan experience in the field of treating and reusing wastewater.....	12
(2.1.4.1) Soba sewage treatment plant.....	12
(2.1.4.2) Treated waste water use.....	13
(2.2) Irrigation water quality.....	13
(2.2.1) Salinity.....	14
(2.2.2) Permeability of soil and causes infiltration problems.....	14
(2.2.3) Toxicity.....	15
(2.2.4) Miscellaneous.....	16
(2.3) Methods of controlling water quality problems.....	16
(3.2.1) Leaching.....	17
(2.3.2) Crop selection.....	17
(2.3.3) Blending water supplies.....	17
(2.3.4) Irrigation frequency.....	17
(2.3.5) Miscellaneous.....	17
(2.4) Waste water management.....	18
(2.4.1) Restriction of using waste water.....	19
(2.4. 2) Tillage.....	21

(2.4.3)	Health.....	22
(2.5)	Uses of waste water in agriculture.....	24
(2.6)	Effect of using waste water on ground water.....	26
(2.7)	Effect of using waste water on soil properties.....	27
(2.7.1)	Long term effect of using waste water on soil.....	30
(2.8)	Plant uptake of waste water constituents.....	31
(2.8.1)	Transfer factor (TF).....	34
(2.9)	Effects on animals.....	34
(2.10)	Effects of using waste water on environment.....	35
(2.11)	Plants used.....	37
	Chapter Three: Material and Methods	
(3.1)	Location.....	39
(3.2)	Experimental design used is complete randomized block design	39
(3.3)	Sprinkler net work system.....	40
(3.4)	Drip system net work system.....	40
(3.5)	Lay out of the experimental field.....	42
(3.6)	Method of land preparation of experimental plots.....	43
(3.7)	System operation.....	44
	Chapter Four: Results and Discussions.....	
(4.1)	Hedera plants.....	47
(4.2)	Euphorbia.....	50
(4.3)	Bermuda grass plants.....	54
(4.5)	The emitters and sprinklers flow measurement.....	57
	Chapter Five : Conclusion and Recommendation	
5.1))	Conclusion.....	58
(5.2)	Recommendation.....	58
	References.....	59
	Appendix.....	62

List of Tables

	Table Title	Page
(4.1)	Analysis of treated waste water	46
(4.2)	Number of the leaves	47
(4.3)	Flower count was done both water treatment	50
(4.4)	The sample grass variety was by the two of water first cut	54
(4.5)	The sample grass variety was by the two of water second cut	55
(4.6)	The emitter s measurement	57

List of Figure

	Figure	page
(3.1)	water tank	41
(4.1)	The Hedra irrigated by tap water	49
(4.2)	The Hedra irrigated by treated water	49
(4.3)	The Euphorbia plant irrigated by tap water	52
(4.4)	The Euphorbia plant irrigated by the treated water	52
(4.5)	The wenka plant irrigated by treated water	53
(4.6)	The wenka plant irrigated by tap water	53
(4.7)	The grass plant irrigated by tap water	56
(4.8)	The grass plant irrigated by treated water	56