# Curriculum Vitae



Name : Dr. Wagdy Nazeir <u>Dimian</u>

Nationality : Egyptian Birth Date : Oct,15,1946

**Position** : water management and irrigation expert

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dr.wagdi\_dimian@yahoo.com

## **Present Occupation:**

- Expert of water management and irrigation researches in soils, water and environment research institute (SWERI) which follow the agricultural research center (ARC), ministry of agriculture and soil reclamation, Cairo, Egypt.

- Head of Best Water Consultancy Office, Cairo, Egypt.

## **Education:**

- Ph.D. in soil and water management of sandy soils (water section, soil and water department), faculty of agriculture, Cairo University, Cairo, Egypt, 1983.
- M.Sc. in drainage requirements and water balance (water section, soil and water department), faculty of agriculture, Cairo University, Cairo, Egypt, 1978.
- B.Sc. in soil and water science, soil and water department, faculty of agriculture, Cairo University, Cairo, Egypt, 1967.

## **Key Qualifications:**

- more than 40 years of technical and practical experience in the design and supervision of water management and irrigation projects in Egypt, Tanzania, and Cameroun under different climatic and environmental conditions.
- highly experience in the design and implementation of different irrigation methods such either by gravity as flooding, furrows, corrugations, basins, border strips, sub-surface and/or under pressure head as sprinkler and micro irrigation methods.

- design of irrigation canals and branches, suitable furrow lengths, optimum width and length of border strips under the available

discharge, which achievement at all cases a good moisture distribution uniformity.

- design the control heads for up dated methods of irrigation and preparing the equipments bill of irrigation systems as filtration and chemigation units, control valves, air release and pressure relief valves, pressure gauges, non return valves, back washing valves, flow meters, u PVC and PE pipes, sprinklers, emitters, controllers and all needed fittings.
- design the suitable water barriers structures to alleviate the problems of water erosion and logging in the soil and its harmful effects on crop yields.
- design some additional natural sources of water to cover the water requirements for agriculture, domestic and animals demand during the dry seasons in addition during the rain seasons sometimes, where there are no enough rain as follows:
  - **a.** design and installation a different types of open and tube wells and the device methods for withdrawal water from it easily to achievement the balance between the consumption and substitution rates.
  - **b.** design and installation the reservation ponds and reservoirs including its sites, shape, dimensions and capacities for saving water during the rain seasons.
  - **c.** design and installation the infiltration galleries and horizontal wells to get water from the empty rivers and under hills.
- Lecture on several subjects of water management as follows (attached):
  - a. principles of water management and irrigation.
  - **b.** soil, plant, and water relationships.
  - **c.** crop water requirements.
  - d. fluid mechanics.
  - **e.** methods of irrigation.
  - f. irrigation efficiencies.
  - **g.** groundwater and well irrigation.
  - h. flow in open conduits.
  - i. flow in closed conduits.
  - j. watershed management.
  - **k.** water logging and drainage requirements.
  - **l.** water quality.
  - m. water user associations.
- training engineers, animators and planter groups theoretically and practically on a different experience and skills in different branches of water management subjects as follows:

- **a.** design and installation, operation and maintenance the different methods and systems of irrigation.
- **b.** design and installation the open and tube wells.
- **c.** design and installation the water barriers structures by using a local materials.
- **d.** design and installation the farm reservation ponds and reservoirs.
- **e.** design and installation the open channels and drainage ditches required by an easy ways.

Take into consideration that the important subject is how to teach and let the planter groups qualified, comfortable, lovely unions and loving these types of works. Moreover it is very important to teach them how to depend upon themselves without needing any assistance in the future.

Share my colleagues on supervision both M.Sc. and Ph.D. students in the multi fields of soil and water management. Take into consideration that all the proposal research subjects of scientific thesis will be practically sharing and assisting on solving the actual problems in the human society.

- supervision of different planting operations for soil and water management by co-operation with the planter groups to obtain a good yield as maize, rice, orchards, vegetable, ..... etc.
- supervision and implementation the different irrigation schemes for both agricultural farms (field crops, fruit orchards, forage crops and vegetables), and landscaping for palaces, big houses, gardens, play grounds, castles, resorts, clubs and hotels, (attached).
- occupy water management and irrigation expert in special program for food security through FAO in both Tanzania (1999 2000), and Cameroun (2004 2005), (attached)

## **Occupation Record:**

2007 – now	Water management and irrigation expert in SWERI, ARC, Cairo, Egypt.
2005 – 2007	Head of water management and irrigation researches in SWERI, ARC, Cairo, Egypt.
2004 – 2005	Water management and irrigation expert in Cameroun through FAO in the special program of food security.
2000 – 2004	Head of water management and irrigation researches in SWERI, ARC, Cairo, Egypt.
1999 – 2000	Water management and irrigation expert in Tanzania through FAO in the special program of food security.
1993 – 1999	Head of water management and irrigation researches in SWERI, ARC, Cairo, Egypt.

1988 – 1993	First researcher in SWERI, ARC, Cairo, Egypt.
1984 – 1988	Researcher in SWERI, ARC, Cairo, Egypt.
1981 – 1984	Assistant researcher in SWERI, ARC, Cairo, Egypt.
1968 – 1981	Researcher assistant in SWERI, ARC, Cairo, Egypt.

## **INTERNATIONAL APPRECIATION:**

- 1. Acknowledgment letter from Tanzania government in 2000 concerning the designing of both drip and sprinkler irrigation systems with its control heads and preparing the bill of quantities in addition to evaluation and studying the water balance of Ilonga reservoir (attached).
- **2.** Acknowledgment letter from Cameroon government in 2005 concerning the author of book has a title of "Introduction in Water Management". (attached).

## **Languages:**

**Arabic** : mother tongue

**English** : excellent

French : pass Swahili : good Fulfulde : pass

## THE UNITED REPUBLIC OF TANZANIA

## MINISTRY OF AGRICULTURE & COOPERATIVES

Telegrams: "Kilimo" Dar es Salaam Telephone: 865426

Telephone: 865426 Facsimile: 861393

E-Mail psk@kilimo.go.tz In reply please quote:

Irrigation Section
Kilimo House II Temeke,
P.O. Box 9192,
DAR ES SALAAM

12th July, 2000

Ref. No.KI/D.10/IR

Dr. W.N. Dimian, Water Management and Irrigation Expert Irrigation Section, DAR ES SALAAM.

#### ACKNOWLEDGEMENT

As you are aware the Department of Research and Development has engaged the Irrigation Section to provide services for improvement/Development of Ilonga Irrigation System from 7th Dec. 1999 todate.

The design team was mobilized for field work during the second week of February, 2000. Survey work as well as detailed design started and was carried out from March till mid May, 2000.

With regard to the duties you had been assigned I understand that so far you have carried out the following tasks:

- (i) designs for both drip and sprinkler Irrigation systems covering 10 ha with a control head including filtration and fertigation equipment.
- (ii) Studied the existing PVC network, overall water balance of Ilonga Reservoir and finally submitted the Bill of quantities for rehabilitation of Irrigation facilities.

Thank you for your good cooperation and we wish to express our appreciation and gratitude to you. I am sure you will continue to carry out other assignments in your field of expertize as may be assigned to you.

Best regards,

Eng. G.M. Kalinga
For: PERMANENT SECRETARY.

REPUBLIQUE DU CAMEROUN Paix - Travail - Patrie

MINISTERE DE L'AGRICULTURE ET DU DEVELOPPEMENT RURAL

**DELEGATION PROVINCIALE DU NORD** 

REPUBLIC OF CAMEROON Peace — Work — Fatherland

MINISTRY OF AGRICULTURE AND RURAL DEVELOPPEMENT

NORTH PROVINCIAL DELEGATION

#### THE PROVINCIAL DELEGATE OF AGRICULTURE AND RURAL DEVELOPPEMENT FOR THE NORTH IN GAROUA

PROF Dr DIMIAN WAGDY,
Expert of water management
and irrigation - PSSA — Cameroon

I'm please to inform you that I have received the book on. "Water and irrigation management subject" that you send to us.

It is a book full of informations on the concerned subject for our Province

We are very glad and we are sure to make good use of it.

All my compliments, Dear Friend and colleague.

Sincerely yours.

Garoua the ... Of

The Provincial Delegate

HAMADOU ABDOULAYE

MINISTRY OF AGRICULTURE AND SOIL RECLAMATION AGRICULTURAL RESEARCH CENTER (ARC). SOIL, WATER AND ENVIRONMENT RESEACH INSTITUTE (SWERI).

# EXPERIENCE CERTIFICATE TO WHOM IT MAY CONCERN

This is to certify that Dr. Wagdy Nazeir Dimian (Former head of the improvement and conservation research department in the institute) has joined our research institute in July 1968. He obtained the B.Sc. (Soil & Water Sci.) with honor in 1967 from the Soil & Water Science Dep., Cairo University. He obtained his M.Sc. Degree (Soil & Water Sci.) in 1978 and the Ph.D. degree (Soil & Water Sci.) in 1984 from the same University.

Since his appointment, he has collaboration and supervision on carrying laboratory and field research experiments in the subjects of Soil and Water Management.

We should like to add that Dr. Dimian's personal character and behaviour are excellent. He is a decent and brilliant colleague and his relationship with all of the staff is really extremely pleasant and cooperative.

Date 15th Aug. 2009,

Signature

Prof.Dr. H. El Housain

DIRECTOR, SWERI

## LECTURE WATER MANAGEMENT SUBJECTS:

#### 1. DEFINITION OF WATER MANAGEMENT AND PRINCIPLES

## including the following subjects:

- 1. Definition.
- 2. Redistribution of soil moisture (culture practices, artificial barriers, and conditioning).
- 3. Applying water distribution system, artificial irrigation (wetting all of soil surface, wetting part of soil surface, necessity for artificial irrigation, scopes of irrigation science, advantages, and disadvantages of artificial irrigation).
- 4. Water control.
- 5. Water resources.

#### 2. SOIL, PLANT AND WATER RELATIONSHIPS:

#### including the following subjects:

- 1. Composition of soil (soil texture, soil structure).
- 2. Behavior of soil moisture.
- 3. Soil moisture content (gravitational free water, capillary water and field capacity, permanent wilting point, hygroscopic water capacity).
- 4. Available water.
- 5. Pattern of soil moisture extraction by plant.
- 6. Water deficits.
- 7. Water intake (infiltration, percolation, seepage).
- 8. Infiltration rate and irrigation design (in designing furrow, border strips, sprinkler, and micro irrigation methods)
- 9. Watering rates and rotations.
- 10. Water logging.
- 11. Water balance.
- 12. Measurement of soil moisture.

## 3. CROP WATER REQUIREMENTS:

- 1. Climate and biological cycle of plants.
- 2. Some important definitions (photosynthesis and chlorophyllian function, respiration and transpiration, water consumptive use (CU), evapotranspiration (ET), water requirements (WR), irrigation requirements (IR), effective rainfall (ER), and crop coefficient,  $K_c$ ).
- 3. Determination of actual evapotranspiration of crops ( $ET_{crop}$ ).

- 4. Factors affecting  $ET_{crop}$  (climate, soil characteristics, crop characteristics, and irrigation methods).
- 5. Climatological nomination (temperature (T), day light hours (P), relative humidity (RH), wind velocity ( $W_v$ ), and solar radiation).
- 6. Calculation of potential evapotranspiration, ET<sub>o</sub> (Blany-Criddle, radiation, modified Penman, and Pans evaporation methods).
- 7. Example of Calculation  $(ET_0)$  by different methods.

#### 4. FLUID MECHANICS:

#### including the following subjects:

- 1. Dimensions and units.
- 2. Fluid properties (density, specific weight, specific gravity, specific volume, dynamic viscosity, viscosity, kinematic viscosity, surface tension, vapor pressure, compressibility).
- 3. Fluid statics (pressure intensity, measurements of pressure).
- 4. Fluid kinematics (classification of fluid motion, stream line, streak line, stream tube, equipotential lines, flow net, two and three dimensional flows, continuity equation).
- 5. Fluid dynamics (position energy, pressure energy, velocity energy, Bernaulli's equation, flow through a sharp edged rounded orifice, flow through a side nozzle, flow through a nozzle fitted to pipe, flow through a submerged orifice, flow through a venture meter, flow through a siphon, flow through a pitot tube, flow over a rectangular weir and notch, flow through a triangular weir (v- notch), discharge below a sluice gate, principle of momentum equation, reaction of jets on bodies, forces acting on a pipe bends, head lost in sudden enlargements, head lost in a sudden contraction, head lost in sluice gate, head lost through mouth pieces).

## **5. METHODS OF IRRIGATION:**

- 1. Flooding irrigation method (free, wild or ordinary flooding, contour ditches flooding).
- 2. Furrows irrigation method (furrows, siphon tubes, gated pipes, riser pipes).
- 3. Corrugations irrigation method.
- 4. Basins irrigation method.
- 5. Border strips irrigation method.
- 6. Sub-surface irrigation method.

- 7. Sprinkler irrigation method (advantages, disadvantages, sprinkler rotating head, sprinkler characteristics, fully portable system, semi-permanent system, solid-set system, permanent system, machinery move system, towers system).
- 8. Micro irrigation method (advantages, disadvantages, components, drip irrigation system, long path distributors, orifice distributors, vortex distributors, wall tubing distributors, localized spraying system, hydraulic characteristics of distributors, moisture distribution patterns, salt distribution patterns, clogging problems).
- 9. Distinguishment of irrigation methods.

#### **6. IRRIGATION EFFICIENCIES:**

#### including the following subjects:

- 1. Water-conveyance efficiency.
- 2. Water application efficiency.
- 3. Water use efficiency.
- 4. Water storage efficiency.
- 5. Water distribution efficiency.
- 6. Consumptive-use efficiency.
- 7. Project efficiency.
- 8. Operational efficiency.
- 9. Economic irrigation efficiency.
- 10. Some indicators of irrigation practices (adequacy, dependability, equity).
- 11. Moisture patterns under different irrigation practices.

## **7- GROUNDWATER AND WELL IRRIGATION:**

- 1. Definitions (aquifer, aquiclude, aquitard, aquifuge, homogenous, and isotropic).
- 2. Types of aquifers (unconfined aquifer, perched aquifer, confined aquifer, and leaky aquifer).
- 3. Physical characteristics of aquifers (porosity (n), hydraulic conductivity (k) saturated thickness (d), storativity (S), specific yield (Sy) specific retention (Sr) safe yield, and hydraulic resistance (C)).
- 4. Open wells (types, construction, locations, yield, and methods of lifting water).
- 5. Tube well s (types, construction, design, development, and yield).
- 6. Infiltration galleries and horizontal wells.
- 7. Advantages and disadvantages of well irrigation.

- 8. Springs (contact springs, overflow springs, valley springs, fault springs, artesian springs, and volcanic springs).
- 9. Pumps (positive displacement pumps, rotor dynamic pumps, net positive suction head (NPSH), pumping head (H), pump performance, and power requirements).

#### **8- FLOW IN CONDUITS:**

## including the following subjects:

- 1. Flow in open channels (types, grades, flow, resistance of fluid motion, measurements of flow, measurements and recording of water level, design of irrigation channels, maintenance of irrigation channels, losses in irrigation channels, lining of irrigation channels, hydraulic structures).
- 2. Flow in closed conduits (potential head, types of flow, Darcy- Weisbach equation, Hagen-Poisuille formula, Manning formula, velocity distribution at case of turbulent flow, friction factor (*f*), minor or secondary head losses in pipes, water hammer phenomena (W.H), flow in complex pipe lines system, water pipe interior, stresses in pipes, economical studies).

#### 9- WATERSHED MANAGEMENT:

#### including the following subjects:

- 1. Precipitation (forms, rain drops and affecting conditions, motivators and types, measurement, rain gauges network, and analysis of precipitation data).
- 2. Water Erosion (factors, types and features, measurement of soil erosion, and water erosion control).
- 3. Runoff (factors, estimating runoff, estimation soil losses, and runoff control).
- 4. Floods (frequency and recurrence, types, destruction, flood control, and flood routing).
- 5. Water harvesting (catchments area, water harvesting techniques).

## 10- WATER LOGGING AND DRAINAGE REQUIREMENTS:

- 1. causes of water logging phenomena.
- 2. effects of water logging.
- 3. Observation features of water logging .
- 4. Water logging and salinity control.
- 5. salt balance in soil.
- 6. land drainage history.
- 7. advantages of field drainage.
- 8. surface drainage method ( random ditches system , bedding system, field ditches system, open ditches system, and cross slope ditches system).

- 9. Open drainage method (preliminary survey study, planning and design of open drains, synoptic diagram, drainage coefficient, cross section, design depth (h), side slope (θ), bed slope, bottom width (b) banks, flow velocity (v), channel capacity, example and solution, curvature, junctions, distance between ditches, determination of hydraulic conductivity, Donnan equation, Hooghoudt equation, example and solution drainage structure, and maintenance of open drainage ditches).
- 10. Subsurface drainage method ( advantages, clay tiles, concrete tiles, polyethylene tiles, trenching and manual installation, automatic installation, mole drainage, movement of water into subsurface drains, flow to drains in homogeneous soils, flow to drains in heterogeneous soils, flow to interceptor drains, drainage coefficient, natural or random pattern, herring bone pattern, gridiron pattern, cutoff or interceptor pattern, design of subsurface tile drains, preliminary field survey, drainage coefficient, tiles slope and flow velocity, tile drains diameter, tile drain depths and spacing, example envelop materials, and maintenance of tile drains).
- 11. Well or vertical drainage method (advantages and disadvantages of vertical drainage, pumping rate and drawdown).
- 12. Biodrainage method (principles, and comparison between biodrainage and other methods of drainage).

#### 11- WATER QUALITY:

- 1. Effect of using poor water quality in irrigation (salinity problems, permeability and crusting problems, toxicity and nutritional imbalance problems, and miscellaneous features).
- 2. Water quality evaluation.
- 3. Poor water quality management in irrigation ( crop selection, osmo regulation treatments , additional leaching fraction , more frequent irrigation, choosing the suitable appropriate method of irrigation, irrigation practices , cultivation practices , groundwater and drainage requirements , water and soil amendments , and water reuse strategies ) .

#### 12. WATER USER ASSOCIATIONS:

- 1. Definition.
- 2. Permitted tasks of WUA.
- 3. WUA participants.
- 4. Establishment and legislation of WUA.
- 5. Internal arrangement of WUA.
- 6.Irrigation advisors.

# Farm Design and Layout

#### 1- Agricultural Field

Design and supervision of erection a micro and sprinkler irrigation methods including both the chemigation and filtration units for the following farms:

- 1.1. General B. Attia Farm (25 acres), Ismailia, 1984.
- 1.2. Atomic Energy Agency Farm (10 acres), Anshas, Sharkia, 1985.
- **1.3.** Ramsis Company Farm (100 acres), Mansouria, Giza, 1991.
- 1.4. Green Park Farm (250 acres), Wadi El-Natroun, Beihera, 1992
- 1.5. Antwan Farm (15 acres), Wadi El-Natroun, Beihera, 1992
- **1.6.** NARP Project Ismailia Research Station Farm (10 acres), Ismailia, 1993.
- 1.7. Keiro Mina Farm (200 acres), Wadi El-Natroun, Sadat City, 1993
- **1.8.** Haidar Farm (100 acres), Wadi El-Natroun, Sadat City, 1993.
- **1.9.** Owida Farm (100 acres), Wadi El-Natroun, Sadat City, 1993.
- **1.10.** Agricultural Tawfik Society (1500 acres), Ismailia, 1994.
- **1.11.** Saint Mina Monastery Inner Farm (100 acres), Borg El-Arab, Alexandria, 1994.
- **1.12.** Dream Land Farm (30 acres), Wadi El-Natroun, Sadat City, 1995.
- **1.13.** El-Khashah Farm (300 acres), Wadi El-Natroun, Sadat City, 1996.
- 1.14. Fiourisma Farm (200 acres) El-khatatba, 1997.
- **1.15.** National Service Project Farm (10.000 acres), East of Owainat, Aswan, 1998.
- 1.16. General I. Aziz Farm (20 acres), Anshas, Sharkia, 1998
- 1.17. General S. El Dein Farm (20 acres), Anshas, Sharkia, 1999
- 1.18. General N. Osman Farm (20 acres), Anshas, Sharkia, 1999
- **1.19.** National Service Badr Farm (300 acres), Suez, 1999.
- **1.20.** Atlas Company Farm (1000 acres), Sadat City, 2001.
- **1.21.** Saint Abou Fana Farm (60 acres), Minya, 2002
- **1.22.** El-Tohamy F. Farm (150 acres), Sadat City, 2002.
- **1.23.** Saint Mina Monastery Outer Farm (120cres), 2003.
- 1.24. National Service Kasfreit Farm (300 acres), 2003.
- 1.25. Mina Farm (25 acres), E1-Khatatba, Sadat City, 2003.
- **1.26.** Saint Mina New Farm (150 acres), Borg El-arab, Alexandria, 2006.
- **1.27.** Saint Mina Monastery New Farm (100 acres-new stage), Borg Elarab, Alexandria, 2007.
- 1.28. Saraia Farm (40 acres), Anshas, Sharkia, 2007.
- **1.29.** Saint Mina Monastery Farm (60 acres), Borg El-arab, Alexandria, 2008.
- 1.30. Brothers Farm (40 acres), West of Delta, 2008.
- **1.31**. Saint Mina Monastery Olives Farm (50 acres), Borg El-arab, Alexandria, 2009.

- **1.32.** Dr. Wagdy Abdelmalak Farm (40 acres), first stage, Dairmous, Minia Governorate, 2010.
- **1.33.** Green Gold Project Farm (Italian Group), 28,000 acres Minia Governorate(principle stage), 2010.
- **1.34.** General H. Saad Eldein, Elmagd Farm (60 acres), Elbehera Governorate, 2011.
- **1.35.** General H. Saad Eldein Elshorta Farm (15 acres), Elbehera Governorate, 2011.
- **1.36**. Dr. Wagdy Abdelmalak Farm (40 acres), second stage, Dairmouas, Minia Governorate, 2011.
- **1.37.** Green Gold Project Farm (Italian Group), 28,000 acres, Minia Governorate (first stage), 2011.

#### 2- Landscaping Field

Design and supervision of erection a sprinkler and micro irrigation methods including both a fertigation and filtration units applying by controllers, satellites, decoders for the following sites:

- 2.1. National sporting club (Mokhtar El-Tetch Stadium), Cairo, 1986.
- **2.2.** AMF Tuboscope Egypt, Orabi Society, 1986.
- 2.3. K. Labeib Palace, Sakara, Cairo, 1993.
- **2.4.** M. Shita Castle, Mansouria, Cairo, 1996.
- 2.5. Desert Beach Resort, Sharm E1-Sheikh, 1997.
- **2.6.** Nada Resort, Giza, 1997.
- **2.7.** International Medical Center, Cairo, 1997.
- **2.8.** M. Shita Palace, Mansouria, Cairo, 1997.
- **2.9.** Gardinia Park Resort, Giza, 1998.
- **2.10.** M. Amein Palace, Hurghada, 1998.
- **2.11.** Arabella Park Resort, New Cairo, 1998.
- **2.12.** L. Michaeil Palace ,Cairo, 2001.
- **2.13.** A. Bisada Palace, Cairo, 2002.
- **2.14.** M. El-Saei Palace, Maadi, 2003.
- **2.15.** Cooperation with American Gates leighton & Associate Incorporated Company as an irrigation consultancy office from 1997-2000.
- **2.16.** Green Gold Project Villa (Italian Group), Minia Governorate, 2011.

# **Publications**

- Shawky, M.E., Abdalla, M.M. and **Dimian**, W.N. (1979) "Studies on Salt and Water Balance as Affected by Water Consumptive Use and Drainage Depths 1. The Overall Salt Balance", Agric. Res. Rev. Vol. 57(4).
- Shawky, M.E., Abdalla, M.M. and **Dimian**, W.N. (1979) "Studies on Salt and Water Balance as Affected by Water Consumptive Use and Drainage Depths 2. Salt and Ion Regime Coefficient", Agric. Res. Rev. Vol. 57(4).
- Shawky, M.E., Abdalla, M.M. and **Dimian**, W.N. (1979) "Studies on Salt and Water Balance as Affected by Water Consumptive Use and Drainage Depths 3. The Water and Air-Water Balance", Agric. Res. Rev. Vol. 57(7).
- Shawky, M.E., Abdalla, M.M. and **Dimian**, W.N. (1979) "Drainage Effectiveness in Saline Soils Under Barley Yield", Agric. Res. Rev. Vol. 57(5).
- Shawky, M.E., Abdalla, M.M. and **Dimian**, W.N. (1984) "Soil and Water Management of Sandy Soils", Agric. Res. Rev. Vol. 62.
- Abdel-Mottaleb, M., Abdel Aziz, S.M. and **Dimian, W.N.** (1986) "Boron-Nitrogen Interrelationship in Barley Plants", Annals of Agric. Sc., Moshtohor, Vol. 24 (4).
- *Dimian, W.N., Abdel Mottaleb, M. and Abdel Aziz, S.M.* (1986) "Irrigation Costs Under Local Conditions in Egypt", Bull. Fac. of Agric., Univ. of Cairo, Vol. 37 (2).
- Faltas, R.L., Zikri, B.S. and **Dimian**, W.N. (1986) "Comparison and Evaluation of Seepage Calculation Methods", Bull. Fac. of Agric., Univ. of Cairo, Vol. 37(2).
- Abdel Aziz, S.M., **Dimian**, W.N. and Abdel Mottaleb, M. (1986) "Response of Some Cultivars to Salinity", Bull. Fac. of Agric., Univ. of Cairo, Vol. 37(2).
- Abdel Aziz, S.M., **Dimian, W.N.** and Abdel Mottaleb, M. (1987) "Effect of Soil and Water Management on The Root Yield and Sugar Content of Sugar Beet", Annals of Agric. Sc., Moshtohor, Vol. 25(3).
- *Dimian, W.N., Miseha, W.I. and Faltas, R.L.* (1987) "Water Use by Sugar Beet Crop Under Different Methods of Irrigation", Bull. Fac. of Agric., Univ. of Cairo, Vol. 38 (1).
- Faltas, R.L. and **Dimian**, W.N. (1990) "Deriving Soil Hydrological Constants from Field Drainage Tests in Some Loamy Soils of Egypt", Annals of Agric. Sci. Moshtohor, Vol. 28(1).
- *Dimian, W.N. and Faltas, R.L.* (1990) "Regression Models for Calculations Soil Moisture Retention Curves", Annals of Agric. Sci. Moshtohor, Vol. 28(2).
- El Kommos, F., Dahroug, A.A. and **Dimian, W.N.** (1991) "Growth and Yield of Soybean in Sandy Soil as Affected by Irrigation Regimes and Soil Amendments", Zagazig J. Agric. Res. Vol. 18 (5).

- Abdel Aziz, S.M., **Dimian, W.N.,** Hussein, L.A. and Essa, S.I (1992) "Effect of Boron and Potassium on The Chemical Composition and Growth of Sugar Beet in Sandy Soils Under Different Irrigation Systems", Zagazig J. Agric. Res. Vol. 19(1).
- *Dimian, W.N. and Faltas, R.C.* (1992) "Studies of Salt Balance Under Different Drain Spacings", Egypt. J. Appl. Sci. 7(3).
- Faltas, R.L. and **Dimian**, W.N. (1992) "Salt Distribution and Ion Regime Coefficient Under Different Drain Spacing", Egypt. J. Appl. Sci. 7(6).
- Mansour, M.A., Soliman, H.S. and **Dimian**, W.N. (1992) "Pedological Studies on Some Soils in The Western Area of Sinai Peninsula, Egypt", Egypt. J. Appl. Sci. 7(6).
- Faltas, R.L., El Gamassy, E.M. and **Dimian**, W.N. (1992) "An Economic Study on Different Tile Drain Spacing", Egypt. J. Appl. Sci. 7(7).
- *Dimian, W.N.*, *El Kommos, F. and Sherif, M.A.* (1992) "Consumptive Use and Water Use Efficiency of Peanut Crop Under Sprinkler Irrigation System", Egypt. J. Appl. Sci. 7(7).
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- *Dimian*, W.N. (1999) "Fluid Mechanics", DSM Edt. House, Tanzania.
- *Dimian*, *W.N.* (2005) "Introduction in Water Management", Yaoundi, Pub. House, Cameroun.
- *Dimian, W.N.* (2011) "Water Management Engineering" Anglo-Egyptian Bookshop, Cairo, Egypt.

# **Articles**

- **Dimian, W.M.** (2002). "Water Management and Control in Irrigation Orchard Farms in Eygpt." Agricultura) Magazine, Egypt.
- **Dimian, W.M.** (2008). "Water Management and Achievement the Food Security in Africa". Eshraqa Magezine, Egypt.
- Dimian, W.N. (2009). "Gravity and Flooding Irrigation." Eshraqa Mazazine, Egypt.
- **Dimina, W.N.** (2010). "Management of Irrigation Methods and Schemes." Esharqa Magazine, Egypt.
- **Dimian, W.N.**(2011). "Poetical Narrative of Water Drop." Eshraqa Magazine, Egypt.