



# **Curriculum Vitae**

**September, 2015.**

**Abdalla Mohamed Ali Abdalla**

**Professor**

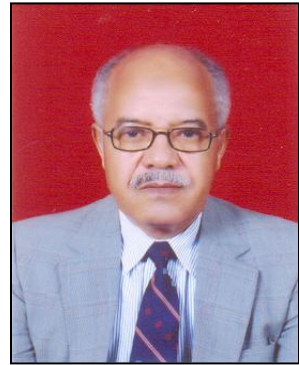
**(Vegetable Crops' Physiology & Production)**

**Ph.D. 1982, M.Sc. 1979, Cornell University, U.S.A.**

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## Experience Summary

Mr. Abdalla Mohamed Ali Abdalla is an agricultural scientist with particular expertise in Vegetable Crops' Production. He has been involved in human resource development via **agricultural education, Research and post-graduate training** since 1982. Being for thirty one years in the agriculture profession, his expertise has extended to related fields of food security and rural development.

His professional contributions have qualified him to the advisory and consultancy role to some national and regional agricultural development boards and projects. Mr. Ali has developed a good knowledge of agriculture in Africa and the Middle East through his active participation in professional conferences and workshops and through contacts and visits to his peers in the region.

Internationally, Mr. Ali has participated in several missions related to agriculture/horticulture research and development with such organizations as **FAO, UNDP, IFAD, The World Bank, The African Development Bank, Arab Bank For Economic Development in Africa (BADEA), Intergovernmental Authority on Development (IGAD)** and with development agencies such as **The Directorate-General for International Cooperation-The Netherlands Ministry of Foreign Affairs.**

## Personal Profile

**Nationality** : Sudanese

**Date of Birth** : January 26, 1950.

**Permanent Address** : Department of Horticulture,  
Faculty of Agriculture- Shambat  
University of Khartoum - Khartoum North,  
Sudan

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**Marital status** : Married, 4 children

**Languages** : English and Arabic (mother language)

**Education & Qualifications** : Ph. D. Vegetable Crops' Physiology; abiotic stress

Cornell University- USA, 1982.

: M.Sc. Vegetable Crops' Physiology; Nutrition.

Cornell University - USA, 1979.

**On-Job Training** : Agroforestry Research for Development-  
Organized by The International Council for  
Research in Agroforestry (ICRAF),  
Nairobi-Kenya, May 1990

: Regional Potato Germplasm Management,  
International Potato Center (CIP), Izmir-Turkey,  
Sept. 1986.

: Vegetable Crops Seed Production, Technology  
and Marketing, organized by The British Council  
at Cambridge and Bath Universities, UK, July  
1983.

**:The Fifth International Course on Potato Production organized by International Agricultural Center , Wageningen,**

**The Netherlands, April-July 1976.**

**Academic Title : Professor; 25 / 09 / 2000.**

## **Professional Experience**

After graduation from University of Khartoum, Department of Horticulture with a B.sc. (Agric.) Honours Degree, I was selected as a teaching assistant in the Department of Horticulture and started my post graduate studies in 1977 at Cornell University, USA, Department of Vegetable Crops where I earned my M.sc. and PhD in 1979 and 1982 respectively. My major specialization for the M.sc. was Vegetable Crops and the minors were Plant Physiology and Soil Science – Nutrition. For the PhD the major was Vegetable Crops and the minors were Plant breeding and Crop Physiology.

Since 1982 I have been involved in the narrow specialization of Olericulture and Horticulture at large through applied research geared for vegetable crops' improvement, training and human resources development at the Diploma, B.sc., M.sc. and PhD levels, planning and management and consultancies with Development Organizations and private sector in the area of Horticulture.

Specifically, research area targeted raising productivity and improving quality of vegetable crops. Within this context production constraints were addressed via:

- i. Testing, evaluation, identification and recommendation of superior cultivars taking into consideration producers', consumers', and, if necessary, processors' interest as much as possible. Activities comprised sweet potato, potato varieties from Dutch and Irish seed companies, tomato, onion, cabbage, cauliflower.
- ii. Determination of crops' optimum input requirements of soil fertility, irrigation water, cultural practices.....etc under natural stresses (biotic and abiotic) prevailing in different agro ecological production environments. Integrated pest management of vegetable crops in open fields and protected green houses has been a top priority.

- iii. Utilizing high genetic diversity and adaptability of land-race populations to prevailing environment. During an ADB(June2002-May 2004) and BADEA(June 2004- May 2007) funded consultancies to the Eritrean National Agricultural Research Institute, the following were achieved:
- a) One potential variety and nine inbred lines of onion were developed, where premature bolting and splitting were reduced to <7% and 5% respectively.
  - b) Three dry and two potential fresh populations of chilli peppers were developed.
  - c) Grape fruit and sweet orange varieties adapted to the central highland and both eastern and western lowlands were identified.
  - d) Funds were raised from the Humanitarian Assistance Recovery Program (HARP) - USAID in Eritrea to plan and implement a local seed potato multiplication project.

The above activities have been geared to insure food security and alleviation of poverty. Consequently contributing to increasing availability, affordability and consumption of diverse, safe, nutritious foods and diets ultimately paving the way to improvement of farmers livelihood and rural development. The vision has been to incorporate horticultural crops' promotion and education around food and sustainable food systems that build on existing local knowledge, attitudes and practices.

Human resources' development is considered as the power house for any development. I have been involved and have contributed significantly to the training of technicians (for private sector), and horticulture graduates at the levels of B.sc., M.sc. and Ph.D.

Being advisor to important local and regional private enterprises and a member of their boards of directors, planning, coordination and management aspects were part and parcel of my duties as extracurricular activity. Membership of projects' formulation and review missions (mostly multidisciplinary and multicultural) with such organizations as FAO, IFAD and World Bank has, no doubt, enriched my interpersonal skills, experience and capabilities to interact effectively with other professionals in a team-work spirit

External funds were obtained from the Ministry of Finance (Sudan) for the development of research infrastructure at the Department of Horticulture, University of Khartoum. Moreover, funds were raised from the Humanitarian Assistance Recovery Program (HARP) - USAID in Eritrea to plan and implement a local seed potato multiplication project.

All of the above professional activities have been documented in the form of published scientific papers, progress and terminal reports. Based on the above professional records, I earned my professorship title in September, 2000.

**a) Teaching Activities: -**

Redesigned, updated and taught courses on horticultural crops production at The Faculty of Agriculture- University of Khartoum and courses on food production at Ahfad University College for Women in Sudan, 1982 - present. Courses taught are:

- i) Principles of Vegetable crops' production.
- ii) Production of major Vegetable crops.
- iii) Technologies of vegetable crops' production.
- iv) Protected (Green-houses) horticultural production.
- v) Physiology of vegetable crops.
- vi) Kinds and varieties of vegetable crops.
- vii) Advanced Vegetable crops' physiology (Graduate students).

**b) Research Activities: -**

- Conducted research on Horticultural crops' production constraints and on identification and domestication of wild and traditional medicinal and aromatic plants. Also indigenous germplasm collection and management were carried out in Sudan, 1982- Present.

- Horticulturist of the research project on Integrated Pest management on vegetable crops in Khartoum State, funded by FAO, 1993- 1995.

- Team leader of a project titled Agronomy and Phytosanitary Measures for Table Potato Destined for Export to Europe, funded by Ministry of High Education, 2008-2010.

- Team leader of a seed potato multiplication project, funded by USAID at the National Agricultural Research Institute (NARI), Eritrea, 2003-2006.

- Affiliated as cooperating scientist with the International Research Institutions of IFS-Sweden (1984-89), IITA-Nigeria (1985-90), ICARDA – Syria peas germplasm evaluation (1985-93) and as senior research fellow at IITA (1985) and The Institute of Applied Botany- University of Hamburg, Germany (1987).

### **c) Post Graduate Training Activities: -**

Initiated and supervised 35 M.Sc. and 7 Ph.D. thesis researches in vegetable crops and medicinal plants.

### **d) Educational Management:-**

- Member of the University of Khartoum Senate Council, 1995 – present.
- Member of the Faculty Board of the Faculty of Agriculture, U of K, 1995 - Present.
- Member of the Scientific Promotion Panel for the research workers in the Agricultural Research Corporation Sudan, 2007 - Present.
- Chairman of the Department of Horticulture, U of K for three terms during the period 1988 – present.
- Member of the Editorial Board of the U of K Journal of Agricultural Sciences, 2007 – present.
- Member of the Technical advisory committee for the U of K Farm, 2014 - present.

### **e) Conferences: -**

Participated in 15 professional international conferences in The USA (3), Europe (3), Africa (4), The Middle East (2) and Sudan (3).

### **f) Professional Societies: -**

1. American Society for Horticultural Science, 1980-86.
2. International Society for Horticultural Science, 1983-93.
3. European Society for Potato Research, 1986-95.
4. East and Southern Africa Root crops Network (ESARN), 1986-90.
5. Sudanese Horticultural Science Society, 2007 – present.

### **g) Publications: -**

Senior and co-author of 23 scientific papers published in international and local refereed journals, technical reports (7) and feasibility studies (3) (see attached list).

## **List of Publications**

### **A) Published Scientific Papers**

Ali, A. M. (1989). Effects of Planting on Different Sides of the Ridge on Emergence, Plant Growth, Yield and Quality of Potato (*Solanum tuberosum*) in the Sudan. Expl Agric. 25: 409 – 415.

Ali, A. M. and Kelly, W.C. (1992). The effects of interfruit competition on the size of sweet pepper (*Capsicum annuum L.*) fruits. Scientia Horticulturae. 52: 69 – 96.

Ali, A. M. and Kelly, W. C. (1993). Effect of the pre-anthesis temperature on the size and shape of sweet pepper (*Capsicum annuum L.*) fruit. Scientia Horticulturae. 54:97–105.

Ali, A. M. (1993). Effects of cultural practices on reducing field infestation of potato tuber moth (*Phthorimaea operculella*) and greening of tubers in the Sudan. Journal of Agricultural Science, Cambridge. 121: 187 – 192.

Abdel Magid, H.M.; Abdalla, M.A.; El Tilib, A.M.A. and Ali, A.M.(1996). Poultry manure as ameliorative fertilizer for salinized soils sown to snap beans in a semi-arid environment. Egyptian Journal of Applied Science; 11(9): 199 – 210.

Ali, A. M. (1993). Responses of Sweet Potato (*Ipomoea batatas*) Cultivars to the Time of Planting in the Semi-arid Environment of Shambat, Sudan. University of Khartoum Journal of Agricultural Sciences; 1 (2): 99 – 112.

Ali, A. M. (1993). Effects of Mineral Nutrition on Growth and Yield of Sweet Potato (*Ipomoea batatas*) in Shambat Area, Sudan. U. of K. J. Agric. Sci.; 1(2) : 113 – 124.

El Tilib, A.M.A.; Ali, A.M. and Abdalla, M. A. (1993). Effect of Chicken Manure and Salinity on Growth and Leaf N, P and K content of okra grown on two soil types. U. of K. J. Agric. Sci.; 1 (2): 17 – 36.

Ali, A. M. (1998). Effect of Management Practices on Establishment, Growth, Yield and Quality of Bulb of Garlic (*Allium sativum*) at Shambat, Sudan. I. Clove Size and Ridge Orientation. U. of K. J. Agric. Sci.; 6(1) : 107 – 121.

Ali, A. M. (1998). Effect of Management Practices on Establishment, Growth, Yield and Quality of Bulbs of garlic (*Allium sativum*) at Shambat, Sudan. II Planting Method, Density and Date. U. of K. J. Agric. Sci. 6(1): 122 – 132.

Ali, A.M. 1995. Agricultural Education in the Sudan; An Analytical Study. The First Horticultural Conference- Ministry of Agriculture and Forestry (In Arabic).



Ali, A. M. and Yousif, A.E.M. (2000). Response of Potato (*Solanum tuberosum*) Crop to Time and Rate of Nitrogen Fertilization in North Central Sudan Environment. U.of K. J. Agric.Sci; 8(1): 46 – 59.

Ali, A. M. and Bakry, S.A. M. (2000). Study of the Growth, Yield and Bulb Quality Attributes of Some Local Onion (*Allium cepa* L.) Genotypes in the Sudan. U. of K. J. Agric. Sci.: 8(2): 81 – 94.

Ali, A.M. and Bakry, S. A. M. (2000). Responses of Four Local Onion (*Allium cepa* L.) Varieties to Irrigation Intervals in Light Clay Soils at Shambat (Sudan). U.of K. J. Agric. Sci.; 8(2): 95 – 105.

Ali, A.M.; Hamad, E.E. and Mohamed, A. E. (2001). Effects of Watering Regimes on Growth, Yield and Quality of Potato (*Solanum tuberosum*) Under the Semi-arid Environment of Shambat, Sudan. U.of K. J. Agric. Sci.; 9(1): 56 – 68.

Hamad, E.E.; Ali, A.M. and Mohamed, A. E. (2001). A Comparative Study of the Actually Applied and the Predicted Water Requirement for the Potato Crop (*Solanum tuberosum*) at Shambat, Sudan. U. of K. J. Agric. Sci.; 9(1) :69 – 81.

Ali, A. M. and Abdalla, R. S. (2004). Sugar Beet (*Beta vulgaris* L.) Root Yield and Quality as Influenced by the Sowing date and Time of Harvesting in the Semi-arid Environment of Northern Central Sudan. U. of K. J. Agric. Sci.; 12(1) : 35 - 45.

Abdalla, R. S. and Ali, A. M. (2004). Study of the Growth and Fresh Root Yield of Sugar Beet (*Beta vulgaris* L.) in the Semi-arid Environment of Northern Central Sudan. Journal of Agricultural Investment; 2(1) : 109 – 119.

Magda A. O.; Ali, A.M. and Hassan E. K.(2007).Some physic-chemical properties of Blond psyllium (*Plantago ovata* Forssk) seeds as affected by planting dates and fertilization. Albuhuth; 11(2):27-38.

Wiehle M, Goenster S, Kehlenbeck, Gebauer J, Ali A. M., Jamnadass R and Buerkert A (2010). Fruit trees in homegardens of the Nuba Mountains, Central Sudan, and their contribution to household nutrition and income. Fourth Africa Nutritional Epidemiology Conference Proceedings, Nairobi, Kenya, 42-43.

Goenster, S<sup>a</sup>.; Wiehle, M<sup>a</sup>.; Gebauer, J<sup>b</sup>.; Ali, Abdalla<sup>c</sup>; Stern, R.D<sup>d</sup>. and Buerkert, A.<sup>a</sup> 2015. Daily rainfall data to identify trends in rainfall amount

and rainfall-induced agriculture events in the Nuba Mountains of Sudan. **Journal of Arid Environments; 122, 16-26.**

[ a University of Kassel, Organic Plant Production and Agroecosystems Research in the Tropics and Sub-tropics. Steinstr, 19, 37213 Witzenhausen, Germany.

b Rhine-Waal University of Applied Sciences, Sustainable Agricultural Production Systems with Special Focus on Horticulture. Marie-Curie Str. 1, 47533 Kleve, Germany.

c University of Khartoum, Faculty of Agriculture, Department of Horticulture, 13314 Shambat, Sudan.

d University of Reading Statistical Services Centre, Harry Pitt Building, Whiteknights Road, P. O. Box 240, Reading RG6 6FN, United Kingdom.]

Goenster, S.; Wiehle, M.; Gebauer, J.; Ali, Abdalla. And Buerkert, A. 2015. Gaseous emissions and soil fertility of homegardens in the Nuba Mountains, Sudan. **Journal of Plant Nutrition and Soil Science; 178 413-424.**

Goenster, S.; Wiehle, M.; Gebauer, J.; Ali, Abdalla and A.; 2014. Carbon and nutrient fluxes and balances in Nuba Mountains homegardens, Sudan. **Nutrient Cycle Agroecosystem; 100 : 35-51.**

## **B) Technical Reports:**

Four Technical Reports on Assignments with UNDP/FAO, IFAD, The World Bank and The Directorate-General for International Cooperation- The Netherlands Ministry of Foreign Affairs.

Ali, A. M. 1987.Improvement of Sweet Potato Production Under Irrigated heavy Clays in the Sudan. A Country Paper In. Proceedings of the Third Eastern and Southern Africa Root Crops Workshop (I ITA). Malawi.

Ali, A. M 1984. The On-going Research in Sweet Potato in the Sudan. A Country Paper In. Proceedings of the Second Eastern and Southern Africa Root Crops Workshop (I I TA), Kampala, Uganda.

Ali A. M. and Khogali, M. A. 1985. Potato Production, Constraints and Prospects in the Sudan. A Country Paper In. Proceedings of the Second Annual Conference on Potato Research and Production in the Middle East, (CIP), Cairo –Egypt.

Ali, A.M. May, 2004. Consultancy terminal report on Central Highlands Irrigated Horticulture Development Project in Eritrea, funded by African Development Bank.

Ali, A. M. July, 2007. ,, Terminal Report on Technical Assistance to Eritrea, funded by BADEA.

### **C) Feasibility Studies:**

Ali, A. M.; El Hassan, H. S. and El Tohamy, A. M. 1992. Technical and Economic Feasibility Study for a National Project for Seed Potato Production in the Arab Countries. The Arab Organization for Agricultural Development, (In Arabic).

Ali, A. M.; El Hassan, H. S.; El Tohamy, A. M. and Badi, S. M. 1994. Technical and Economic Feasibility Study for the Establishment of a Public Company for Seed Potato Production in the Sudan. Federal Ministry of Agriculture and Natural Resources, Sudan (In Arabic).

Ali, A. M. and Babikir Idris. 2011. Technical and Economic feasibility study for a Greenhouse complex (100 units) for production of Horticultural crops at Al Guneid funded by Sudanese Sugar Company.

### **h) Consultancy and Advisory Record**

- Member (horticulturist) of multidisciplinary team for the integrated pest management(IPM) project on vegetable crops implemented in Khartoum State by the Agricultural Research Corporation and funded by FAO, 1993 – 1995.
- Member of the National Variety Release and Crop Husbandry Committees 1988 to present.
- Member of the National Committee for the Appraisal of the Horticulture Administration, Ministry of Agriculture and Natural Resources, Sudan. October 1989.
- Member of the Sudanese Technical Board for The Potato Crop Production and Development, Ministry of Agriculture and Natural Resources, Sudan 1985 - present.
- Participated in several feasibility studies of local agricultural development projects.

- Member of a four-consultant team for the production and export of agricultural commodities. The Arab Authority for Agricultural Investment and Development (AAID), Sudan 1989 – 94.
- Served on a three person's team to prepare a technical and economic feasibility study on seed potato production in the Arab countries, funded by The Arab Organization for Agricultural Development, Sudan November 1991.
- National counterpart expert in a Dutch mission for evaluation of an agricultural project in the Northern State - Sudan, financed by The Directorate - General for International Cooperation of the Netherlands Ministry of Foreign Affairs, January 1993.
- Registered consultant with The Islamic Development Bank - Jeddah, Saudi Arabia, 1993. Code No. 00161.
- Leader of a four persons team to prepare a technical and economic feasibility study on the establishment of a national company for seed potato production in Sudan funded by the Federal Ministry of Agriculture and Natural Resources, Sudan, 1994.
- Consultant and Chairman of the Board of Directors of 'Wafra' and the Agricultural Bank Project for the production and export of horticultural crops and the production of seed potato, Sudan, 1993-1998.
- Consultant and Chairman of the Board of Directors of the Public Company for Seed Potato Production Ltd. Sudan. March 1995- April 1997.
- Member of the formulation mission for the **UNDP/FAO Sustainable Agricultural Development Project (SUD/97/023)** in the Area Development Schemes (ADS) and Area Rehabilitation Schemes (ARS) Program in Sudan - March - April 1997.
- Member of the International Fund for Agricultural Development's (IFAD) Follow-up mission to review the Northern Province Irrigation Rehabilitation Projects 1 & 11 - Sudan. November 1997.
- Member of The World Bank's - Supervision Mission to IFAD - funded Northern Province Irrigation Rehabilitation Projects (NPIRP 1 & 11) in Sudan - March/April 1998.
- Member of the Technical Committee for Horticultural Crops - Sudanese Standards and Metrology Organization (SSMO)1995-2000.
- Member of the National Committee for formulation of the Horticultural Sector Strategy 2002-2027. Ministry of Agriculture and Natural Resources, Sudan.
- Consultant – Agricultural Research and Horticulture sub-sector development for The Central Highlands Irrigated Horticulture

Development Project, financed by The African Development Bank; Ministry of Agriculture, The State of Eritrea (June, 2002 – May, 2004).

- **Senior Agricultural Research and Production Expert to The National Agricultural Research Institute of the Ministry of Agriculture, State of Eritrea, funded by a Technical Assistance from The Arab Bank for Economic Development in Africa (BADEA) (August 2004 –July 2007).**
- **Registered consultant with the African Development Bank under the code 00092104.**
- **Leading scientist in the Department of Horticulture for the program of vegetable crops teaching, production and research in protected environments (greenhouses).**
- **Member of the FAO Needs Assessment of Sudan Productive Capacity Recovery Programme: North (SPCRP) Capacity Building [North]; funded by the EC, November 16, 08 –January 23, 2009.**
- **Co-ordinator, KAP(Knowledge, Attitude, Practice) survey team to Blue Nile State; SPCR-CBN, 2010.**
- **Instructor, Horticulture Nurseries establishment, production and management course; Blue Nile State.SPCR-CB, 16-25 May 2010.**
- **Instructor, training of trainers course on vegetables’ production; SPCR-CBN at Kadogli (September 19-27), Damazin (October 3-11), Eldamar (October 17-25) and Port Sudan (December 19-27), 2010.**
- **Team leader for planning and implementing a protected vegetable crops’ production project(100 green houses) at Alguneid – Algazera State, Sudan, funded by The Sudanese Sugar Company; October, 2009.**
- **Technical adviser to Sheikho Horticultural Crops’ Project about 1700 hectares at Wadi Elmugaddam area, Khartoum State for production of potato, alfalfa for export, date palm and citrus crops.**
- **Regional consultant for the formulation of IGAD Regional Strategy and Medium-Term Implementation Plan 2016-2020;. June 2014- March 2015.**
- **Technical Consultant to Authority of Marawi Dam Area for Agricultural Development (AMDAAD), 2007 to present.**
- **Team member of Newtech Consulting Group Sudan, to conduct a feasibility study into upgrading and modernizing existing irrigation system at Tabuk Agricultural Development Company(TADCO) KSA; a horticultural crops’ November 2012.**