

## Personal Data

**TAG ELDIN EL SHEIKH MUSA HAGO**

**DATE OF BIRTH** : January, 1950.

**NATIONALITY** : Sudanese.

**MARITAL STATUS** : Married, with four children.

**PRESENT STATUS** : Professor.

**LANGUAGES** : Arabic, English

**ADDRESS** : Department of Agronomy, Faculty of Agriculture,  
University of Khartoum, Shambat, Sudan.

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## Qualifications

1. B. Sc. (Agric) Honours Division One, Faculty of Agriculture, University of Khartoum, Sudan, 1973.

2. Ph.D. Plant Physiology (Nutrition), University of Wales, Aberystwyth, U.K. 1979.

1. Khalil Osman prize for the best student in the subject of Animal Production in third year.

1. Associate Professor of Agronomy, Department of Agronomy, Faculty of Agriculture, University of Khartoum(1991-1996),.

6. Professor (1996).

## Teaching Experience

5.1. Teaching in the Faculty of Agriculture, University of Khartoum.

5.1.1. Current Teaching.

1. Crop Production 102(Principles of Crop Production), Second Year Students.
2. Crop Production 304 (Pulse Crops), Third Year Students.
3. Crop Production 310 (Plant Nutrition), Fourth Years Students.
4. Advanced Plant Nutrition, Graduate Students, Department of Agronomy.
5. Physiology of Growth and Development, Graduate Students, Department of Agronomy.
6. Advanced Plant Nutrition, Graduate Students, Department of Horticulture.
7. Production of Oil, Fibre and Sugar Crops, Diploma Students, Department of Agronomy.
8. Production of Seeds of field Crops, Diploma Students, and Department of Agronomy.
9. Principles of Crop Production, Diploma Students, Department of Soil and Environmental studies.

#### 2.1.2. Previous Teaching

1. Crop Production 41 (Oil Seeds), fourth years students.
2. Crop Production 42 (Fiber crops, sugar cane, root crops, miscellaneous crops), fourth year students.
3. Crop Physiology, final year students.

#### 5.2 Teaching in Other Higher Education Institutions.

1. Crop Production, third year students, College of Agricultural Studies, Sudan University for Science and Technology (1979-80).
2. Crop Production, second year students, Rural Education Course, Institute of Extra-mural Studies, University of Khartoum (1980-83).
3. Crop Production, second year students, Faculty of Agriculture, University of Upper Nile (1996).
4. Supervised graduation projects for final year agriculture students in a number of Sudanese Universities.

#### VII. Design of curricula for Sudanese Universities:

1. Member of the Curriculum Designing Committee, Faculty of Natural Resources and Environmental Studies, University of Kordufan.
2. Member of the Curriculum Designing Committee, Faculty of Natural Resources and Environmental Studies, University of El Fashir.

3. Member of the Curriculum Designing Committee, Faculty of Agriculture and Natural Resources, University of Kassala.
4. Member of the Curriculum Designing Committee, Faculty of Agricultural Sciences and Environment, University of El Gedarif.
5. Member of the Curriculum Designing Committee, Faculty of Agricultural Sciences, University of El Delenj.
6. Member of the Curriculum Designing Committee, Faculty of Agriculture, Um- Durman Islamic University.
7. Member of the Curriculum Revision Committee, Faculty of Agriculture, University of Upper Nile.
8. Designed the Major Field Crops Course, The Open University of Sudan.

## **Extra Curricular Activities**

1. Internal examiner for a number of M. Sc. and Ph. D. students in the Departments of Agronomy, Horticulture, Botany and Agricultural Biotechnology, Soil Science and Crop Protection in the Faculty of Agriculture, University of Khartoum.
2. Internal examiner for M. Sc. Students in the Institute of Environmental Studies, University of Khartoum.
3. External examiner for M. Sc. Students, College of Agricultural Studies, Sudan University for Science and Technology.
4. External examiner for the final year agricultural students, University of Joba.
5. External examiner for the final year agricultural students, University of Kassala.
6. Participated in short in-service training courses for employees in the agricultural sector.
7. Participated in Staff Promotion Committees of Sudan University for Science and Technology.
8. Participated in Staff Promotion Committees of Um Durman Islamic University.
9. Reviewed scientific articles for a number of periodicals: University of Khartoum Journal of Agricultural Sciences, Arab Agricultural Research Journal (Published by The Arab Organization for Agricultural Development), Sudan Journal of Scientific Research, Gazira Journal of Agricultural Sciences, University of Sinnar Journal of Agricultural Sciences, Sudanese Journal of Agricultural Research.

10. Reviewed academic textbooks in the Faculty of Agriculture, University of Khartoum.
11. Contributed to the Agricultural Dictionary (Arabic-English-French): Part One, Volume 4, Plant Production. Published by The Arab Organization for Agricultural Development (1983).
12. Member of the Cereals and Pulses Committee, The Sudanese Standards and Metrology Organization (1985-1987).
13. Member of the Board of the Blue Nile Agricultural Corporation (1991-1993).
14. Member of the Committee for Investigating Causes of Declining Wheat Yields in the Rahad Agricultural Corporation (1993).
15. Member of the Committee for Evaluation of the IFAD Report on IFAD-Financed Development Schemes in Sudan in the 1980s (1994).
16. Member of the Fertilizer Technical Committee, Ministry of Agriculture and Forestry (2002).
17. Contributed to the Agricultural Dictionary (English-Arabic) published by the High Organization of Arabicization, National Council for Higher Education and Scientific Research (2001).

## **Current Research**

1. Effects of fertilizers on growth, yield and quality of different field crops, (cereals, legumes, oil seeds, forages, and industrial crops (roselle “Karkadeh”, sugar beet and guar) under irrigation.
2. The response of field crops to fertilizers under rainfed conditions.
3. The performance of crops in legume/non-legume intercropping systems.
4. The beneficial effects of organic fertilizers in saline soils.
5. The interactions between fertilizers and other cultural practices (weeding, irrigation regime, plant density).

## **Consultation Work**

Member of national or international teams that conducted the following studies:

1. Feasibility Study for El Muttahideen Agricultural Company, Damazin, Blue Nile State (1983).

2. Kassala Province Environmental Profile. Sponsored by The Netherlands Ministry for Development Cooperation and carried out by The Institute of Environmental Studies, University of Khartoum (1987).
3. Formulation of the Agricultural Development Agreement between the Faculty of Agriculture, University of Khartoum and Upper Nile State (2001).
4. Preparation of the Draft of the Fertilizer Law and the fertilizer Grading System, Ministry of Agriculture and Forestry, Khartoum (2003).

## **Visits and Workshops**

6. Visited The International Centre for Agricultural Research in The Dry Areas (ICARDA), Aleppo, Syria. Food Legumes Improvement Program (1987).
7. Participated in the Integrated Systems for Organic Waste Utilization Workshop, Kuwait Institute for Scientific Research (KISR), Kuwait (1988).
8. Participated in the "Arabicization of Scientific Terms and Teaching Agricultural Sciences in Arabic" Workshop. Faculty of Agriculture, University of Khartoum, (5-8 January 1992).
9. Participated in the "Curriculum Revision" Workshop, organized by the Faculty of Agriculture, University of Upper Nile, Khartoum, (16 November 2003).

## **Administrative Duties**

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1. Member of the Faculty Examinations Committee (1979-1982).
2. Secretary of the Department of Agronomy Board (1980 – 982).
3. Manager of the Faculty Experimental Farm (1980-1983, 2005 to date).
4. Convener of the Faculty Class Tours Committee (1985-1990).
5. Head of the Department of Agronomy (1990).
6. Member of the Faculty Board (1988 -1990, 1995-2004).
7. Member of the Faculty Research Board (1988-1990).
8. Member of the University of Khartoum Senate (1988-1990).
9. Member of the University of Khartoum Farm Board (1988- 1990).
10. Member of Shambat Library Committee (1990).

11. Member of the Faculty Arabicization Committee (1990- 1998).
12. Member of the Faculty Class Tours Committee (1992-1995) .
13. Member of the Faculty Class Tours and Field Training Committee (1996-2000).
14. Member of the Faculty Central Laboratory Committee (1997).
15. Member of the Committee for Making Proposals for the Faculty Research Station (1998).
16. Member of the Faculty Academic Supervision Committee (2000 to date)
17. Member of the Faculty Extension and Training Unit (2001).
18. Member of the Faculty Farm and Field Training Committee (2003).
19. Member of The Faculty Committee for formulating the Co-operation Programme between the Faculty of Agriculture and the Plant Protection Administration, Ministry of Agriculture and Forestry, in the field of Agrochemical Studies (2003).
20. Member of the Students Cases Committee (2003).
21. Member of the Faculty Academic Reform Committee (2005 to date).

#### XIV MEMBERSHIP OF PROFESSIONAL ORGANIZATIONS

1. Member of the Sudanese Agricultural Society.
2. Member of the Sudanese Agricultural Engineers Union.

## Publications

### 10.1. Published Papers.

1. M.A. Salama and **Tag Eldin E. M. Hago** (1986). Change in the viability and composition of groundnut (*Arachis hyogaea* L.) seeds with age. *Sudan Agricultural Journal* 11,3-11.
2. **Tag El Din E. M. Hago** and M.A. Salama (1987). The effects of elemental sulphur on shoot dry weight, nodulation and pod yield of groundnut (*Arachis hypogaea* L.) under irrigation. *Experimental Agriculture* (U.K.) 23, 93-97.
3. **Tag El Din E. M. Hago** and M.A. Salama (1987). The effects of elemental sulphur on flowering and pod maturation in groundnut (*Arachis hypogaea* L.) under irrigation. *Fertilizer Research* (Netherlands) 13, 71-76.
4. **Tag El Din E. M. Hago** and D. B. James (1988). Control and variation of *in vivo* nitrate reductase activity in *Lolium Perenne* L., CV. S24:

III. Oscillatory variation of activity under assay conditions. *Plant and Soil* 109, 103-108.

5. Ibrahim Hussein Mohamed and **Tag Eldin E. M. Hago** (1990). The effect of interplant spacing on the growth and yield of chickpea (*Cicer arietinum* L.). *Sudan Agricultural Journal* 13, 17-26.
6. **Tag Eldin E. M. Hago** and Salah Mubarak Ahmed Sawi (1995). [The effects of nitrogen and phosphorus on yield and yield components of maize \(\*Zea mays\* L.\) under irrigation.](#) *University of Khartoum Journal of Agricultural Sciences* 3 (2), 22-31.
7. **Tag Eldin E. M. Hago** and Ahmed B. Mahmoud (1996). [The effects of seed rate and nitrogen on yield and protein content of hybrid forage sorghum \(\*Sorghum bicolor\* L. Moench\).](#) *University of Khartoum Journal of Agricultural Sciences* 4 (1), 73-83.
8. Simon Awok Awok, **Tag Eldin E. M. Hago** and Mahmoud F. Ahmed (1996). [Effects of nitrogen and weeding on yield and yield components of irrigated rice \(\*Oryza sativa\* L.\).](#) *University of Khartoum Journal of Agricultural Sciences* 4 (2), 57-68.
9. Abdel Galeel M.A. Abd Alla and **Tag Eldin E. M. Hago** (1996). [The effects of nitrogen and phosphorus on some seed characteristics of sunflower \(\*Helianthus annuus\* L.\).](#) *University of Khartoum Journal of Agricultural Sciences* 4 (2), 69-77.
10. **Tag Eldin E. M. Hago** and Bakri Mohamed El Hassan Osman (1999). [The effects of nitrogen and phosphorus on yield of Roselle \(\*Hibiscus sabdariffa\* var. \*sabdariffa\* L.\) under irrigation.](#) *University of Khartoum Journal of Agricultural Sciences* 7 (1), 71-82.
11. **Tag Eldin E. M. Hago** and Bakri Mohamed El Hassan Osman (1999). [A note on the effects of nitrogen and phosphorus on growth of Roselle \(\*Hibiscus sabdariffa\* var. \*Sabdariffa\* L.\) under irrigation.](#) *University of Khartoum Journal of Agricultural Sciences* 7 (1), 144-151.
12. **Tag Eldin E. M. Hago** and Bakri Mohamed El Hassan Osman (1999). Effects of nitrogen and phosphorus on some quality attributes of Roselle (*Hibiscus sabdariffa* var. *sabdariffa* L.) under irrigation. *University of Khartoum Journal of Agricultural Sciences* 7 (2), 16-25.
13. Ali H.A. Baraka, **Tag Eldin E. M. Hago** and M.A. Mustafa (1999). [Effects of irrigation regime and farmyard manure on yield and water use of lucerne \(\*Medicago sativa\* L.\) on a salt-affected clay soil.](#) *University of Khartoum Journal of Agricultural Sciences* 7 (2), 1-15.
14. Ali H. A. Barakat, Mukhtar A. Mustafa and **Tag Eldin E. M. Hago**. (2000). [Influence of irrigation regime and farmyard manure on salt redistribution in a highly saline-sodic vertic natrargids under lucerne and \*Atriplex\*.](#) *University of Khartoum Journal of Agricultural Sciences* 8 (2), 17-33.

15. **Tag Eldin E. M. Hago**, Mukhtar A.Mustafa and Ali H. A. Baraka(2000). [A note on the performance of Atriplex under different irrigation regimes on a saline clay soil.](#) *University of Khartoum Journal of Agricultural Sciences* 8 (2), 161-166.
16. **Tag Eldin E. M. Hago** and Adam Hassan Adam Gumaa (2001). Response of three guar (*Cyamopsis tetragonoloba* (L.) Taub) genotypes to nitrogen and phosphorus fertilization under irrigation. *University of Khartoum Journal of Agricultural Sciences* 9 (2), 225-235.
17. **Tag Eldin E. M. Hago**, Abdel Bagi Ahmed Abdl Bagi And Faisal El Gasim Ahmed (2002). [Response of Roselle \(\*Hibiscus sabdariffa\* var \*Sabdariffa\* L.\) to nitrogen, phosphorus and sulphur under summer and winter sowing.](#) *University of Khartoum Journal of Agricultural Sciences* 10 (1), 40-52.
18. Abdel Bagi Ahmed Abdel Bagi, **Tag Eldin E. M. Hago** and Faisal El Gasim Ahmed (2002). [Chemical composition of Roselle \(\*Hibiscus sabdariffa\* var. \*sabdariffa\* L.\) as affected by genotype, nitrogen, phosphorus and sulphur fertilization.](#) *University of Khartoum Journal of Agricultural Sciences* 10 (2), 198-212.
19. **Tag Eldin E. M. Hago**, Siddig A. M Ali and Abdel Moneim M. A. Eltilib (2004). [A note on the Effects of phosphorus and nitrogen fertilizers on chemical composition of pearl millet \(\*Pennisetum glaucum\* L.\) grains.](#) *University of Khartoum Journal of Agricultural Sciences* 12 (2), 287-292.
20. Eltilib, A.M.A ; **Tag Eldin E. M. Hago** ; A. H. Awad Elkarim and S. M. A. Ali (2005). The response of rainfed pearl millet (*Pennisetum glaucum* L.) to nitrogenous and phosphatic fertilizers applied on sandy loam soil. *Annals of Agricultural Science* 50(2), 499-511.
21. Ali E. Hassan, M. D. Dennett and **Tag Eldin E. M. Hago** (2006). [Effects of molybdenum and zinc application and \*Bradyrhizobium\* inoculation on growth and yield of groundnut \(\*Arachis hypogaea\* L.\). 1. Nodulation, leaf nutrient content and biomass production.](#) *University of Khartoum Journal of Agricultural Sciences* 14(1), 32-49.
22. Ali E. Hassan, M. D. Dennett and **Tag Eldin E. M. Hago** (2006). [Effects of molybdenum and zinc application and \*Bradyrhizobium\* inoculation on growth and yield of groundnut \(\*Arachis hypogaea\* L.\). II. Pod yield and its components..](#) *University of Khartoum Journal of Agricultural Sciences* 14(1), 50-63.
23. Eltilib, A.M.A ; T. E. M. Hago ; A. H. Awad Elkarim and S. M. A. Ali (2006). Effect of nitrogenous and phosphatic fertilizers on performance of rainfed pearl millet (*Pennisetum glaucum* L.) grown on clay loam soil. *Arab Universities Journal of Agricultural Sciences.*, 14(1), 195- 203.

## 10.2. Published books.



24. .Hamid O. Burhan and **Tag Eldin E. M. Hago** (1999). *Principles of Crop Production* (In Arabic). Published by Khartoum University Press 276p: A text book for agricultural students in Sudanese universities providing an introduction to fertilizers, seeds, crop rotations and weeds.

25. **Tag Eldin E. M. Hago** (2005). *The Major Field Crops*. (in Arabic): Khartoum University Press. 460p. A textbook on the agronomy of the major field crops and their production in the Sudan.

26. Ahmed Mohamed Mohamed Ahmed<sup>1</sup> and Tageldin El Sheikh Musa Hago (200). [Response of Two Sesame \(\*Sesamum indicum\*L.\) Cultivars to Nitrogen and Phosphorus Fertilization under Rain Fed Conditions](#)\*.

1. of K.J. Agric. Sci. 17(3), 321-332, 2009

### 10.3. Reports and miscellaneous articles.

26. **Tag Eldin E. M. Hago** and others (1989). Environmental Profile-Kassala Province, Eastern Region, Sudan. Published by DHV Consultants, Amersfoort, The Netherlands. 54 p: A study describing the environment of Kassala Province (123, 106 km<sup>2</sup> in area) in Eastern Sudan, providing an analysis of the environmental problems, with emphasis on the interaction between man and the environment. The study also describes the different ecosystems in the Province and the natural resource base and the potential of each ecosystem.

35. **Tag Eldin E. M. Hago** (1989). Agricultural processes and systems, p.140-227. In *Kassala province Environmental profile*. Collection of papers prepared by M. E. Abu Sin (Ph. D). Published by The Institute of Environmental Studies, University of Khartoum 281p. The paper describes the farming systems in Kassala Province, providing critical analysis and highlighting production constraints of each system.

36. **Tag Eldin E. M. Hago** and others (2003). Final Report of the Fertilizer Technical Committee (in Arabic). Report of a study sponsored by Ministry of Agriculture and Forestry, Khartoum, Sudan and carried out by the above authors who constituted the Fertilizer Technical Committee. The report contains the draft of The Fertilizer Law, The Fertilizer Grading Systems and The Fertilizer Testing Procedures in The Sudan, which were formulated by the Committee.