Personal Data

Name : Ghazi Hamid Badawi

B.Sc, M. Sc, Ph.D.

Languages : Arabic (mother tongue)

: English (2nd language)

: Japanese (spoken; 3rd language)

: French (Elementary level,)

Education: : Primary School, Intermediate School, and Secondary School

(ElGezera Aba, Sudan)

Qualification

2004 : Ph.D. in Plant Biotechnology from United Graduate College,

Tottori University, JAPAN

1997 : M.Sc. in Agriculture from the Graduate College, University

of Khartoum

1992 : B.Sc. (Agric.) Honor in Agronomy, Faculty of Agriculture,

University of Khartoum

Positions held

Apr. 2004-present: Assistant Professor, Department of Agronomy, Faculty of Agriculture, University of Khartoum, SUDAN

Apr. 2001-Mar2004: Ph.D. student, Department of Biotechnology and Biochemistry, Faculty of Agriculture, Tottori University, JAPAN

1998-2004 : Lecturer, Faculty of Agriculture, University of Khartoum

1993- 1997 : Teaching Assistant at the Department of Agronomy, Faculty of Agriculture, University of Khartoum, SUDAN

1994-1996 : Graduate Research, University of Khartoum

1992 : Agricultural advisor in Peace and development Foundation (Duties: on Farm visit, advises to customers and farmers)

EXPERIENCES

1- Teaching: both undergraduate and postgraduate student

2- Graduate student’s supervision

3- Invited lecturer at Nation Council for Research

4- Teaching at Sudan University for Science and Technology

5- Teaching at University of Bakht Elrida

Training

July 2011: *Training course in Biosafety Clearing House* sponsored by **United Nations Environment Program (UNEP)**

September 2011: Second *Training course in Biosafety Clearing House* sponsored by **United Nations Environment Program (UNEP)**

May 2008-Nov. 2008: *Application of Molecular Markers in sweet sorghum breeding and study of sugar accumulation*, <쌰d̥>**Cornell University, USA**

August 19/2013-August 26/2013: *Gene bank Management and Biodiversity Conservation*. International Agricultural Research and Training Center, <쌰d̥>**Izmir, Turkey**

October 2013: Bt detection in plant using immune assay methods. Conducted by **JK Agri-Genetic Ltd., Hyderabad, India**, at**Biosafety Research Center, Sudan**.

Membership

Japanese Society of Plant Physiologist

Japanese Society for Plant Breeding

Universityof Khartoum Journal of Agricultural Science

The Sudanese Agricultural Engineers Union

The Sudanese Agricultural Council

National Biosafety Council

Technical Committee of Nation Biosafety Council

Technical Committee of the cultivation of Bt cotton (Ministry of agriculture)

African Technology Policy Studies Network

African society for biotechnology

Research

2001-present:

* Salt and drought-induced genes in Sorghum.

* The role of Ascorbate peroxidase transgenic plants, in combating drought and salinity stress.

* The role of superoxide dismutase transgenic plant in controlling drought and salinity stress.

* Rat sulfite oxidase transgenic plant for SO_2 toxicity.

* Arabidopsis sulfite oxidase transgenic plants for SO_2 toxicity.

* Molecular characterization on sugar in sorghum

* molecular breeding in field crops

Dissertation and Thesis

- Ph.D. Thesis: Amelioration of oxidative stress generated by high salts, drought and sulfite using transgenic approach.

- M.Sc. thesis: Effect of timing of water stress on yield and yield components of maize plants.

Awards

May 2008-Nov. 2008 : Fellowship for African scientisit, Cornell University, USA

Nov.2004-Nov.2006 : Japanese Society for the Promotion of Science (JSPS) for Post doctoral fellow.

Oct.2000-March 2004 : Japan ministry of Education, Culture, Sports, Science and Technology (MONBUSHO) for Ph.D. in JAPAN

1996-1998 : Grand from University of Khartoum for M.Sc. in SUDAN

Research interest

Application of molecular markers in sweet sorghum research

Studying antioxidant enzymes in plants under abiotic-stress

Genetic modification for stress tolerance in plants

Administrative work

1. Co-ordinator of Postgraduate Studies in the Department of Agronomy, Faculty of Agriculture
2. Manager of the Experimental Farm of Faculty of Agriculture
3. Head Departme

Supervised the following M. Sc. Students

1- Eman Abdelmoneim Mohamed Abdalla. 2007-2008. Effect of pod position on main stem on yield characteristics and quality of some faba bean (*Vicia faba*) genotypes.

2- Gafar Ali Farah Hamadtou. 2007-2009. Effect of nitrogen fertilization on growth and yield on some sunflower (*Helianthus annuus* L.) hybrids.

3- Manal Khider Abdala Elshoush. 2007-2009. Effect of water stress and phosphorous fertilizer on growth, yield and quality of clitoria (*Clitoria ternatea* L.) plant in Shambat-sudan.

4- SaraOmer Mohamed Mohamed. 2008-2010. Effect of nitrogen fertilization on growth parameters and brix value of three sweet sorghum (*Sorghum bicolor* (L.) Moench) genotypes

5- Safinaz Ismael Mohamed Ramadan. 2009-2011.Effect of pgosphorus fertilizer on growth and brix value of four sweet sorghum (*Sorghum bicolor* (L.) Moench) genotypes

6- Jamila Mohamed Idris Elhadi. 2010-2012. Genetic diversity analysis of some Sudanese sweet sorghum (*Sorghum bicolor* (L.) Moench) genotypes using ISSR molecular marker

7- Mohamed Abdallah El Gurashie. 2011-2013. Evaluation of some sweet sorghum (*Sorghum bicolor* (L.) Moench) genotypes under winter conditions.

8- Mohammed Yousof Abdel Elrahman. 2013. Molecular screening for RF genes in some sorghum (*Sorghum bicolor* (L.) Moench) genotypes.

Students currently under my supervision

1- One M.Sc student

2- Three PhD student (as co-supervisor)

Academic activities

1. Internal examiner for some M.Sc. students in the Dept. of Agronomy, Faculty of Agric. University of Khartoum.

1. Reviewed scientific articles for some journals.

1. Postdoctoral research work at Tottori University, Japan for tow year (2004-2006): Investigation the induction of salt-induced genes in sorghum.

Research training at Cornell University, USA: Applying molecular markers in sweet sorghum to identify sugar accumulation QTL(s).

Publications

1- Badawi, G.H., Yamauchi[1], Y., Shimada, E., Sasaki, R., Kawano,N., Tanaka,K. and Tanaka, K. 2004. Enhanced tolerance to salt stress and water deficit by overexpressing superoxide dismutase in tobacco (*Nicotiana tabacum*) chloroplasts. Plant Science 166:919-928.

2- Badawi, G.H., Kawano, N., Yamauchi, Y., Shimada, E., Sasaki, R., Kubo, A. and Tanaka, K. 2004. Overexpression of ascorbate peroxidase in tobacco chloroplasts enhanced the tolerance to salt stress and water deficit. Physiologia Plantarum 121: 231-238.

3- Atayeb, AE, Kawano, N., Badawi, GH., Kaminaka, H., Sanekata, T., Morishima, I., Shibahara, T., Inanaga, S., Tanaka, K. 2006. Enhanced tolerance to ozone and dropught stresses in transgenic tobacco plant overexpressing dehaydroascorbate reductase in cytosol. Physiologia Plantarum 127:57-65.

4- Atayeb, AE, Kawano, N., Badawi, GH., Kaminaka, H., Sanekata, T., Shibahara, T., Inanaga, S., Tanaka, K., 2007. Overexpression of monodehydroascorbate reductase in transgenic tobacco confer enhanced tolerance to ozone, salt, and polyethylene glycol stresses. Planta 225: 1255-1264.

Proceedings

1- Badawi, G.H., Deng, S. and Tanaka, K. 2005. Role of antioxidative enzymes in high temperature-tolerant and drought tolerat wheats. Core University program, Japan-China joint open seminar on combating desertification and development in Inland China. Pp. 53-54.

2- Badawi, G.H., Tahir, I.S.A., Nakata, N. and Tanaka, K. 2007. Induction of some antioxidant enzymes in selected wheat genotypes. African Crop Science Conference Proceeding 8: 841-848.

Poster presentation:

1- Badawi, G.H., Yamauchi, Y., Kawano, N., Tanaka, K. and Tanaka, K. 2004. Enhanced tolerance to water deficit and high salt stress by overexpressing superoxide dismutase and ascorbate peroxidase in tobacco chloroplasts. Supplement to Plant and Cell Physiol. Vol. 45 pp. 806-806.

2- Ozaki, S., Kawano, N., Badawi, G.H., Ashiguchi, A., Yamauchi, Y. and Tanaka, K. 2004. *Rattus Norvegicus* Sulfite Oxidase Overexplession in Tobacco Confers Tolerance to Sulfite. Supplement to Plant and Cell Physiol. Vol. 45 pp. 644-644.

3- Eltayeb, A.E., Naoyoshi, K., Badawi, G.H., Kaminaka, H., Inanaga, S., Tanaka, K. 2006. Enhancement of oxidative stress tolerance in transgenic tobacco plants (*Nicotiana tabacum*) overexpressing either monodehydroascorbate reductase or dehydroascorbate reductase. Supplement to Plant and Cell Physiol Vol 47. pp. 839-839.

Meetings:

· Japanese Society of Plant Physiologist March 24-26 2005, Nigata

· * Japanese Society of Plant Physiologist March 19-21 2006, Tsukuba.

· African Crop Science Society October, 2007, Almenia, Egypt