CURRICULOM VITAE

NAME: AHMED EL AWAD EL FAKI

ADDRESS: Dept. of Food Sci. and Tech.,
Faculty of Agricultural studies,
Sudan University of Sci. & Tech.
Shambat, P.O. Box 71, Khartoum
North, Sudan.

DATE OF BIRTH: January, 1951

MARITAL STATUS: Married with 4 children

MATIONALITY: Sudanese

LANGUAGES: Arabic and English (Spoken and written)

RELIGION: Muslim

EDUCATION:

- B.Sc. (Agric.) Honours, 1975, Faculty of Agric., University of Khartoum.

- M.Sc. (Food Microbiology), title of thesis: ″Studies on the Methylene Blue Reduction Test of Milk″, 1980, Faculty of Agric. University of Khartoum.

- Ph.D., title of thesis: ″Microbiological and Biochemical Studies of the Traditional Fermented Food of Sudan″. University of Khartoum and Queen ′s University of Belfast (split Ph.D. course). Submitted for award in faculty of Agric., University of Khartoum, 1991.

PRESNT POSITION:

- University Lecturer (Associate Professor).

EXPERIENCE:

- Agricultural inspector assistant, Department of Nutrition, Ministry of Agric., Foods and National Resources, 1975. Trained in Food Microbiology, Food Research Centre, Shambat (1976-1977).
- I was on secondment to Food Research for establishing a Microbial culture collection Unit (1980).
- I acted as deputy head, Department of Food Microbiology, Food Research centre. Lately I joined the Food Research centre permanently as a research scientist (1981).
- Part- timer in Botany Department, Faculty of Agric., University of Khartoum, to teach practical courses of Food Microbiology, Bacteriology, Mycology and physiology (1978- 1989).
- The main job of mine as a research scientist is to conduct applied research in food microbiology.
- Participate in teaching training courses (theory and practical) usually held in the Food Research centre for trainees from different institutes e.g. university of Khartoum, omdurman Islamic university, Gezira university, Hhfad college etc.
- We give advice to people who engaged in the field of food (production, health and commerce). I reported on some of these consultations e.g. Viability of dry bakers′ yesst and its suitability for human consumption, from Khartoum Health office, suitability of spray- dried milk powder for human consumption received from Ministry of commerce .

- I joined Gezira univ. as Iecturer (Assistant prof.) in the Faculty of Sci. and Tech. (1994).
- Translated a number of courses from English to Arabic- university of Gezira.
- Participated in putting M.Sc. courses- University of Gezira.
- In 1996 1joined the Sudan University of Science and technology as Associate prof. Faculty of Agric. Department of Food Science and technology.
- Head Department of Food Science and technology.- Faculty of Agric. Sudan Univ. of Sci. and technology(1996- 2002).
- Head of Food Microbiology Section Faculty of Agric. Sudan Univ. of Sci- and technology (2002- 2006) .
- Member of the library Committee –Faulty of Agric. Sudan Univ. of Sci- and technology.(2003).

Head of the Students Registration committee- Faulty of Agric- Unive. of Sci- and technology.(2004-2005).

- Member of the committee for the evaluation of the Society and home science department(2005).
- Participated in putting examinations of Sudan Secondary School Certificate (Food Industry, year 2005 and year 2006).

WORKSHOPS, COURSES AND SEMINARS ATTENDED:

1. Regional workshop on composite flours. Food Research centre, Khartoum (Shambat), Sudan, December 1981).
2. Training course on ″Microbial aspects of food processing and effluent treatment″. Faculty of Science, University of Khartoum, Sudan, January, 1982.

3. National workshop on ″ Interfaces Between Agricultural, Food science and Nutrition ″. Food Research, centre, shmbat in collaboration with ICRDA/UNICEF Ford Foundation, 10-16th December 1983.
4. Seminar on ″Export Quality Development and control in the Sudan″, Friendship Hall, Khartoum, Sudan, 12-17 March, 1985.
5. A number of seminars presented by post- graduate students in Faculty of Agric., university of Khartoum.
6. Member of steering committee of the training course on ″The Fermented Foods of the Arab world″ held in shambat, Sudan in the period: 1-15 Feb. 1987.
7. A split Ph.D. post-graduate course in the Department of Food Microbiology, Queen′s university of Belfast during a period of two years (April, 1989- March, 1991).
8. Training course on ″Fermented Foods ″. Swansea, wales, U.K., 8-11 January, 1990.
9. Traing course in Molecular Biology Techniques – Sudan Univ of Sci and Technology.(26 th October – 2 nd November 2002).

VISITS:

- In 1979, I had been in west Germany for a scientific tour during which I visited a number of Universities, Institutes and food processing factories.
- I made some visits to different areas of food production in Sudan e.g. EL Duweim district where is highly produced .Idid
- questionnaire about ″background information on small and medium scale food processing enterprises interested in plant level co-operation for transfer of technology″ 1981.
- Academic exchange for a study- visit for three months (October-December 1994) in Technical University of Berlin-Germany.

- Academic exchange for a study- visit for three months (June- Angust 1998) in Hohenheim University – Germany.

PUBLICATIONS:

- ″Studies on the Methylene Blue Reduction Test of Milk″. Sudan Agric.J, 11.1986.
- ″Biochemical and Microbiological Investigations of sigda- A Sudanese Fermented Food″ Derived from sesame oilseed cake. J.Sci Fd. Agric. 1991, 57,351-265.

الألبان زمنتجاتها وتحديات العولمة – المشاكل والحلول – سمنار – ضبط الجودة في الصناعات والرؤي المستقبلية للألفية الثالثة جمهورية السودان الخرطوم أغسطس (أب) 2000 – الخرطوم أكتوبر (2000) .

- Chemical and microbiological quality of Garris, Sudanese fermented camel's milk product. International Journal of Food Science and Technology 2006,41,321-328.

A comparison between a traditional and advanced decortication method on the nutrients of Sorghum (Sorghum bicolor L.Moench) grains.FRC/J.Fd. Sci. and Technol., 1, 2006.

- **DUE TO PUBLICATION:**
- Nutritional and microbiological evaluation of rob ful- a Sudanese fermented groundnut seeds.
- Microbiological and biochemical studies on fermented watermelon seeds of Sudan as food.

- Zabadi –a Sudanese yoghurt from different animal milks.

TECHNICAL REPORTS: (CONSULTATIONS)*

- Viability of Dry Baker′s yeast,1982.

- Microbiological examination of two infected potato varieties, 1982.
- Suitability of Spray-Dried Milk powder for Human consumption, 1984.
- Microbial Quality of karkadeh Extract, 1985.
- Microbiological Evaluation of pasterma coatings, 1986 .
- Microbiological studies of Gamardean, 1987.
- Microbiological Analysis of canned Broad Beans and Tomato paste,1987.
- Quality of Jam, Lentils and Tahnia for Military Force, 1987.
- Quality of Tahnia (Helva),19987.
- Suitability of karkadeh for Export for Human consumption, 1992.
- Microbiological evaluation of ″Biscuits″, 1993.
- Safety of Tomato- paste for human consumption,1994.

FEASIBILTY STUDES:

- Proposal of ″Establishing Microbial culture collection centre in Sudan″ March, 1981.
- Background information on small and medium scale Food processing Enterprises Interested in plant Leve Co-operation for Transfer of Technology, 1982.
- Proposal for establishing library for the Department, 1983.

SUPERVISION:

Ph.D. Students (awarded):

1. Ibrahim Abdullah Allariefi (Physic-chemical characteristics of some of the honey products and their effects on diabetic patients).
2. Gazi Abdallhalim Husein Alssalmi (Effect –of storage conditions on nutritional quality of wheat).

These reports are about researches done for consultations usually received in the Department. They are written in a sort of short scientific papers.

3. Afaf Salih Abdarahman Elsheikh(Business administration in relation to food industry).
4. Igbal Abdarahman Elhag (Testing hypoglycemic properties of wheat bran in kisra intended for NIDD) .

Ph. D Students (in progress):

1. Mahdi Abbas Saad (Stability and frying quality of edible oil berds containg palm olein) .
2. Abdalla Aadam Ali llian (Garris, a fermented camel's milk) .

M. Sc. Students (awarded):

1. Salah Eldein Elata Mustafa (Quality changes durring storage of wheat at Port Sudan) .
2. Zeinab Hasan Ibrahim (Effect of frequent frying and storage changes on the quality of water melon seed oil compared to cotton seed oil).
3. Adeiba Mubark Ali (Effect of decortication methods on the level of nutrients of sorghum grains).
4. Fatma Mohammad Idris (Aerobic bacteria in milk of Khartoum State).
5. Hala gindeil Abubakr (Yoghurt from Sudanese animals, cows, goats, sheeps and camels).
6. Rabaa Musa Hamad (Handling effect on raw milk stored at different temperatures).
7. Salwa Abdallmagied (Microbiological studies of citruses in Khartoum markets).
8. Nawal Babikir Ahmed (Canned food spoilage in Khartoum State).
9. Amna Othman Hamid(Chemical studies of some germinated sorghum grains of Sudan).

M. Sc. Students (in progress):

1. Hagir Ibrahim (Shelf – life of different tomato- paste products).

2- Hagir Ehag Elfaki(Quality evaluation of Kenana sugar product).

3. Eiman Suleman Eisa (HACCP of some Sudanese soft drinks).

4. Afaf Mansar Abbashar (Sudanese cooking habits effect on nutritive value of potato).

5. Abdalla Khalafalla (Quality evaluation of drinking water in Khartoum State).

6. Sali Ali Abdalla Hakim(Safety of Dakwa, a Sudanese Ground Nut product)

INTERNAL EXAMINER

M.Sc. Students:

1. Amal Omer Ali Mohmmed (Vit.c stability in Sudanese Citrus Fruits during storage).

2. Mutaz Nasir Hassan Farag (Microbial amylase production and subsequent fermentation of Sorghum starch to ethanol).

3. Ibtisam Hussain Elhassan(Evaluation of the quality of processed milk products in Khartoum state).

5. Muna Awad Suleiman (Study of quality of fresh raw milk produced and distributed in Khartoum State).

EXTERNAL EXAMINER

Ph.D. Students (Khartoum University):

1. Abdalla Mohamed Eltom (Microbiological studies on Fasikh,a Sudanese fermented fish).
2. Maymouna Mubarak (Standard methods for testing baker' s yeasts under Sudan conditions).

3. Kauther Hussein EL sharif (Microbiological and biochemical studies on Bagania).

Ph.D. Students (Gezira University):

1. Abdallamonim ELhadi Suleiman (Microbiological and Nutritional evaluation of a Sudanese femented milk (rob) .

M.Sc. Students (Khartoum University):

1. Dina Omer Mohamed Ali (May, 2002)
2. Najla Musa Abdel Gadir ELTOM (June,2003).
3. Rasha Tah ELsir Ibrahim Fazaa(February,2004).
4. Abdel halim Abdullahi Hamza Ahmed (September,2004).
5. Abubaker Bashir Makawi Bashir(March,2006).
6. Huda Musa ELsayed (July,2006).

M.Sc. Students (Gezira University):

1. Kamal Hamid Mohamed Elamin (October,1995).
2. Abdarahman Sir ELkhatim Moh.ELTayeb(August,2006).
3. Fatima Mohammed Esa Ali (Semtember,2006).

M.S. Students (Omdurman Islamic University):

1. Maha Ahmed Abdelaal Hassan(October,2001).
2. Amir Mohamed Othman Elamin (June,2005).

SCIENTIFIC PAPERS EVALUATION:

- **Journal of Sic. And Technol.(Sudan Univ. of Sci. and Technol)**
    1. Sclerocarya birrea seed chemical composition, protein quality and product development (February, 2003).
    2. A Re- investigation of physiochemical characteristics and fatty acid composition of Sclerocarya birrea kernel oil (June,2003).

- **Gezira Journal of Engineering and Applied Sciences.**
    1. Isolation of yeasts from Robe,(February, 2005).
    2. Comparison of fermented milks (Feb.,2005).
- **National Research Centre Journal:**
    1. Variations in Cooking Time with Some physio- chemical properties in Stored pea Dry seeds (September,2006).

EVALUATION FOR PROMOTION:

- Lecturer to Assistant professor(Gazira Univ, May,2006).

BOOK EVALUATION:

- Science and Technology of Milk (Gazira Univ., February,2006).

TEACHING COURSES:

- Courses that I teach are:Food Microb., Industrial Microb., Food Quality control, Food preservation, Biotechnology, Traditional Fermented Foods and others.

SOCIAL ACTIVITIES:

- Member of The Chemical Committee of the Food Reserch centre.
- Member of The Agriculturists Trade union of shambat.
- Member of The Medium protection society.
- Member of The Sudanese Food Tech. society.
- Participation in training trainees in food preservation for Intiernational Islamic women union (May 2006).

Introduction:

- The world without water is difficult to imagine. Water is vital for drinking inking, sanitation, agriculture, industry and countless other purposes. Life on earth began in water;now fresh water brings life to thirsty cities, parched crops, and provides the habitat for a multitude of Living things. However, water can also mean death and destruction. Floods are the worst of the natural disasters, killing more people and damaging more properties than earth- quakes, volcanic eruptions or similar hazards.

Polluted water brings disease and death to those who drink it and kills the birds, fish and other forms of life that need it to survive (WHO, 1997).

It has been estimated that half of the world's population has suffered from diseases caused by polluted water (Barbaras, 1986) water- related diseases and illnesses are responsible for the loss of productivity and deaths of millions, perhaps even billions, of people in the developing world. The United Nations reported, for example, that the death of most of the children in Africa who die under the age of 5 is caused by inadequate and unsafe water supplies (houcks, 1994).

The faecal – oral diseases include the well Known water- related diseases that are often fatal such as cholera and typhoid fever, but also the many common diarrheal diseases that particularly affect young children in developing countries, contributing malnutrition and death.

In fact, These diarrheal diseases are often responsible for more child mortality than any other cause of death(WHO,1991). Intestinal bacterial pathogens are widely distributed throughout the world. Pathogenic bacteria known to have occurred in contaminated drinking water include strains of Salmonella, Shigella, Escherichia coli, vibrio cholerae,

Yersinia enterocolitica and campylobacter fetus.

These organisms cause diseases that vary in severity from mild gastroenteritis to severe and sometimes fatal dysentery, cholera or typhoid (WHO 1984).

In Sudan there are some similar studies have been carried in some locations e.g.:

1. Microbiological Examination of drinking water for the displaced people living around Khartoum State (ELrofaei, 2000).

2. تلوث مصادر المياه الجوفية في ولاية الخرطوم بواسطة نظام الصرف الصحي المتمثل في أبار التخلص من ناتج أحواض التخمر باستخدام النماذج الرياضية (معتز عبد الله محمد،2002)

3. تلوث المياه الجوفية في ولاية الخرطوم (الرياض والطائف) في بعض أبار مياه الشرب (دراسة غير منشورة – الدكتور عزالدين يوسف).

Objectives:

1. Follow the changes that may occur in the drinking water from wells adjacent to sewage water in houses.
2. Quantity and quality of microorganisms to be isolated from the water samples.
3. Effect of these microorganisms on human health and what type of disease if any.

Plan of Work:

- Samples of water have to be taken from wells adjacent to houses using septic tanks.
- Microbiological analyses and determining the least number of the microorganisms present.
- Culturing the microorganisms on specific media for determining the pathogenics.

- Statistical analyses of the resulls and find out relationship between these findings and the international least number of microbes in the drinking water.

Conclusions:

1. Knowing the number of wells for drinking water near the sewage.
2. What the pollution percent of these wells by sewage water.
3. What the exact distances between wells and the source of contamination.

Recommendations:

1. Determine the safe distances between wells and sewage source.
2. Treatment of the wells that of low quality of drinking water to be within the international acceptance.
3. The same study to be carried in other regions using the same system for drinking water.