

Associate Professional Officer –Plant Pathology based in Dar es Salaam (Tanzania)
(Ref: DDG-R4D/APO/PP/01/11)

I. GENERAL INFORMATION

Title of the posting:	Associate Professional Officer – Plant Pathology
Sector:	Grain legumes
Location:	Dar Es Salaam, Tanzania
Duration of the assignment:	Initially one year with the possibility to extend up to 3 years
Grade:	IITA offers a competitive remuneration package paid in US dollars. Starting salary scale will depend on the level of education and experience.

Note: This post is opened in the context of the Junior Professional Officer (JPO) scheme sponsored by the Government of the Netherlands and is **addressed exclusively to candidates from developing countries** (for criteria refer to the website of the Netherlands Ministry of Foreign Affairs:

http://www.minbuza.nl/en/Key_topics/Development_Cooperation/Associate_Experts_Programme

II. SUPERVISION

Name of direct supervisor:	Fen Beed
Title of supervisor:	IITA Plant Pathology, Tanzania

Content and methodology of the supervision

The supervisor will provide direct scientific supervision to the selected candidate. He will provide mentoring in research planning, hypothesis development, research methodologies, analysis of results and reporting. The incumbent will prepare, with the assistance of his/her supervisor, a three-year work plan in which details of activities to be executed and milestones for performance monitoring will be specified. This will form the basis for regular monitoring of progress and adjustment of work plans, if necessary. The incumbent will also participate in scientific meetings at the regional hub of IITA for East and South Africa to gain an understanding of the range of activities undertaken and partnerships with national and international staff and institutions. Further mentoring will be provided by Hein Bouwmeester (IITA's GIS specialist), Hailu Tefera (IITA's soybean breeder) and Ranajit Bandyopadhyay (IITA's plant pathologist based at IITA Headquarters in Nigeria). This will offer the opportunity of the incumbent to gain experience in a range of disciplines that combined will achieve impact through a research for development agenda on food security and income generation. The incumbent will undergo the formal IITA-institute wide annual performance appraisals carried-out by the Director responsible for the region in consultation with the Deputy Director General-Research for Development. The administration of the regional IITA hub will assist the incumbent with the logistics for their activities.

III DUTIES AND RESPONSIBILITIES

- Develop an early warning detection system that monitors how soybean rust spores are being distributed in prevailing wind patterns in Tanzania.
- Develop a rapid diagnostic system to detect soybean rust disease when established in the field in Tanzania.
- Characterise the variance of the rust pathogen in Tanzania.
- Assess resistance of soybean germplasm to races of the rust pathogen in Tanzania.
- Develop risk assessment models of the disease spread patterns in Tanzania.

IV QUALIFICATIONS AND EXPERIENCE

Qualifications: M.Sc. in plant pathology

Experience: Preferably 2 years relevant working experience. Familiarity with disease epidemiology, GIS skills, modelling and writing peer reviewed scientific papers.

Competencies:

- Fluency (oral and written) in both English and desirable Kiswahili.
 - Ability to work as a member of a multi-disciplinary team in a cross-cultural environment and to interact effectively with staff from national institutions.
 - Willingness and ability to travel regionally and often under difficult conditions.
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V TRAINING COMPONENTS AND LEARNING ELEMENTS

Training components:

1. Regular mentoring by the supervisor and other senior scientists during research proposal development, design of study, data collection and analysis, manuscript preparation.
2. Regional and country-level meetings at IITA's regional hub for East and South Africa in Dar Es Salaam, Tanzania.
3. Participation in the annual planning and review meetings at IITA's headquarters in Ibadan, Nigeria.
4. Participation in scientific conferences and workshops related to soybean epidemiology and risk assessment.

Learning elements:

In the first year:

1. conduct literature review;
2. develop detailed research proposal and work plan;
3. acquire knowledge of soybean rust epidemiology, GEO spatial issues, breeding programmes, modelling epidemiology parameters and risk as well as on data collection methods and analysis.

In the second and third year:

1. process, evaluate and publish research results;
2. deliver oral presentations on the research outputs;
3. translate research results into recommendations for National Agricultural Research and Extension (NARs) and National Plant Protection regulatory officials (NPPOs);
4. Publish at least one peer reviewed paper.

In all years:

1. improve skills in process monitoring;
 2. improve skills on how to work effectively with national institutions;
 3. improve skills on how to work effectively as a part of a multi-disciplinary and multi-cultural team.
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BACKGROUND INFORMATION

Organisation:

The International Institute of Tropical Agriculture (IITA), with headquarters in Ibadan, Nigeria, is an international non-profit research-for-development (R4D) organization created in 1967, governed by a Board of Trustees, and supported primarily by the Consultative Group of International Agricultural Research (CGIAR). Our R4D is anchored on the development needs of sub-Saharan Africa. We develop agricultural solutions with our partners to tackle hunger and poverty by reducing producer and consumer risks, enhancing crop quality and productivity, and generating wealth from agriculture. We have more than 100 internationally recruited scientists from about 35 countries and 900 nationally recruited staff based in various stations across Africa. Please visit <http://www.iita.org/> for more information on IITA.

Programme:

The candidate will be based in Dar Es Salaam at the regional hub of IITA for East and South Africa and liaise with the plant pathologist and GIS specialist based there and also with IITA's soybean breeder based in Malawi and IITA's plant pathologist based at IITA headquarters in Ibadan, Nigeria.

Asian soybean rust caused by the fungal pathogen *Phakopsora pachyrhizi* first arrived in Africa in 1996 and spread rapidly across Malawi, Mozambique, Rwanda, South Africa, Uganda, Zambia and Zimbabwe causing up to 80% yield loss in badly affected areas. It has since been reported from Cameroon, DRC, Ethiopia, Ghana, Kenya, Nigeria, Sao Tome and Principe, Sierra Leone, Sudan and Tanzania. Major hosts other than *Glycine max* (soybean), include *Cajanus cajan* (pigeon pea), *Phaseolus* (beans) including *P. vulgaris* (common bean), *Pueraria montana var. lobata* (kudzu), *Vigna unguiculata* (cowpea), *Desmodium spp.* and a range of minor host legumes and weeds.

Duty Station: IITA – Dar es Salaam, Tanzania

The candidate will be based in Dar es Salaam, Tanzania and will routinely travel around the interior of Tanzania to areas where soybean cultivation predominates. Dar es Salaam is the largest city in Tanzania which offers all modern day facilities and boasts a bustling and thriving port. In contrast the rural areas of Tanzania offer peace and tranquility with farmers ranging from small holdings to intensive large scale cultivation. The population of Dar Es Salaam is estimated to be 5 million while the country's population is over 38 million, with an annual growth of 1.8%, spread across 945 000 km². Dar es Salaam has an international airport with direct flights to major cities across Africa, Europe and North America. Dar es Salaam has good medical and recreational facilities, easy access to the Indian Ocean and a range of islands including Zanzibar and other tourist attractions. The regional hub of IITA offers full logistical support including regional finance, IT and administration plus a critical mass of internationally recruited scientists of various disciplines and partnerships with the public and private agricultural sector.

VII. HOW TO APPLY

Applications including curriculum vitae, names and addresses of three referees should be addressed to the Human Resources Manager. Please complete our online application form using this link: http://old.iita.org/cms/details/job_application.aspx

The deadline for application is 20th February 2011. Applications received after this date will not be considered. Applicants will receive an acknowledgement of receipt of their application. Thereafter only those shortlisted for interviews will be contacted.

IITA is an equal opportunity employer and particularly welcomes applications from women candidates