

ESTHER EDITH ARUNGA

Name: Esther Edith Arunga

Title/Qualification: Dr.

Position: Lecturer

Department: Agricultural Resource Management

School: Agriculture

Area of Specialization: Plant Breeding and Biotechnology

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Short Biography

Esther Arunga has a Doctor of Philosophy in Plant Breeding and Biotechnology from Moi University Kenya.

Research Interests

Dr. Arunga's research interest is on marker-assisted breeding, genetics and genomics of major tropical food crops. Special interests to the following crops: Common beans (dry and snaps), groundnuts, cowpeas, lablab, cassava and Irish potato. Dr. Arunga has also equipped the research lab at Embu University College with the support of Kirkhouse Trust, UK. Currently, Dr. Arunga is involved in the following research Projects:

2013 – 2017: Kirkhouse Trust, Principal Investigator- Marker-assisted Breeding for Multiple Disease Resistance in Market-Class Kenyan French Beans.

2013-2015: National Commission for Science, technology and innovation, Women innovations: Principal Investigator-Groundnut innovations and groundnut rosette disease to improve livelihoods of Kenyan farmers.

Publications in Journals:

Chepkoech E., Kinyua M., Kiplagat O., Arunga E.E and Kimno S. (2015). Genetic Diversity of Cassava Mutants, Hybrids and Landraces using Simple Sequence Repeat Markers. *American Journal of Experimental Agriculture* 5(4): 287-294.

Arunga, E.E., Ochuodho, J.O., Kinyua, M.G. and Owuoche, J.O. (2012). Characterization of *Uromyces appendiculatus* isolates collected from snap bean growing areas in Kenya. *African Journal of Agricultural Research* 7: 5685-5691.

Arunga, E.E., Van Rheenen H.A and Owuoche J. O. (2010). Diallel analysis of snap bean (*Phaseolus vulgaris* L.) varieties for important traits. *African Journal of Agricultural Research* 5(15):1951-1957.

Presentation of Papers at Academic and Professional Conferences

Arunga, E.E., Eleba, W., Danso, K. and Obare, J.I. (2014). Sensitivity of Lablab (*Lablab purpureus* L.) to Gamma Irradiation and Ethyl Methane Sulphonate. Paper presented at the 2nd Technical University of Kenya- Science Technology Innovation Research Conference: Nairobi, 24th to 27th June.

Arunga, E.E., Ochuodho, J.O., Kinyua, M.G, Chepkoech and Karanja, D.K. (2013). Screening for bean rust resistance in French bean grown in Kenya. *International Journal of Agribusiness, Innovations and Rural development* 1:15-26. Paper presented at the Mount Kenya University First Annual Academic Conference and Agricultural Field Day, Kitale Kenya. 26th – 28th September.

Chepkoech, E., Kiplagat, O., Kinyua, G., Arunga, E.E., and Kimno, S. (2013). Potato breeding potential to resistance to bacterial wilt (*Ralstonia solanacearum*) in Kenya. Paper presented at the 11th African Crop Science Society Conference, Entebbe, Uganda, 13th -17th October.

Chepkoech, E., Kiplagat, O., Kinyua, G., Arunga, E.E., and Kimno, S. (2013). Genetic diversity of cassava mutants, hybrids and landraces based on morphological and microsatellite markers. Paper presented at the 1st international and interdisciplinary conference held at University of Eldoret, Kenya, 3rd – 5th September

Arunga, E.E., Ochuodho, J.O., Kinyua, M.G. and Owuoche, J.O. (2012). Characterization of *Uromyces appendiculatus* isolates collected from snap bean growing areas in Kenya. Poster presentation at IV international Conference on Legume Genetics and Genomics Conference, Hyderabad, India. 2nd – 7th October.

Arunga, E.E., Kinyua, G. M. and Ochuodho, O. J. (2010). Application of Scar Markers for Breeding against Bean Rust in French bean. Paper presented at the Moi University 6th Annual International Conference, Eldoret, Kenya. 7th – 11th September.

Arunga, E.E., Rao, B.S., Omega, B. and Rheenen, H.A. van (2008). Multilocational Trials of Advanced French bean (*Phaseolus vulgaris*) Breeding Material. Proceedings of 4th Annual International Conference, Moi University pp 21-27.

Arunga, E.E., Angima, R. and Rheenen, H.A. van (2008). The Effect of Location on Seed Quality of French bean (*Phaseolus vulgaris*). Paper presented at the Moi University 4th Annual International Conference, Eldoret, Kenya. 29th – 1st July.