CURRICULUM VITAE

Prof Mathews M Dida

Contacts

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Date: 6th September 2020

Prof. Mathews M. Dida

Doctor of Philosophy in Plant Genetics

BSc. (Agric), Nairobi, **MSc** (Agron), Nairobi, **MPhil** (Plant Breeding), Cambridge, **PhD** (East Anglia, UK), **Cert. Plant Breeding Academy**, California, Davis, USA

PERSONAL BACKGROUND	
Date of Birth	10th October 1964
Citizenship	Kenyan
Marital Status	Married
Religion	Christian
Language Competency	Excellent in spoken and written English and Luo
Computer Literacy	Proficient in Word, Excel, Windows, and Power point.
Computer applications	Proficient in R, SAS and GENSTAT
Professional Affiliation	Member of African Plant Breeding Association
ACADEMIC QUALIFICATIONS	
2015- 2016	**University of California**, **Davis**, USA. **Awarded Plant Breeding Academy Certificate**
2005-2006	**Visiting researcher**, Department of Crop and Soil Sciences, University of Georgia, Athens, Georgia, USA.
1998- 2000:	**Postdoctoral researcher**, Department of Plant and Soil Science, Texa Tech University, Lubbock, Texas.
PhD, Plant genetics (1994- 1998)	**University of East Anglia** **Title of thesis:** Genome studies and genetic mapping in finger millet.
MPhil- Plant Breeding (1992- 1993)	**University of Cambridge, UK** **Title of Thesis:** Analysis of gliadin alleles in wheat varieties.
MSc, Agronomy (1990-1994)	**University of Nairobi**
BSc, Agriculture (1987-1990)	**University of Nairobi-** First class honours
EMPLOYMENT & RESPONSIBILITIES	

June 2017- Present	Professor of Genetics and Plant Breeding, School of Agriculture and Food Security, Maseno University.
June 2016- August 2018	Dean School of Agriculture, Tom Mboya University College, Homa Bay (On secondment)
March 2016- May 2016	Acting **Director**, Research, Publications and Innovations, Maseno University
Nov. 2011- March 2015	**Coordinator**, Maseno University Science, Technology and Innovation Park.
2010- June 2017	**Associate Professor**, Department of Applied Plant Sciences, School of Agriculture and Food Security, Maseno University, Kenya
June 2007- May 2010	**Senior Lecturer**, Department of Botany and Horticulture, Maseno University, Kenya.
Nov 2002- May 2007	**Lecturer**, Department of Botany and Horticulture, Maseno University
2001-2002	**Plant Breeder,** Lowland Technical and Agricultural Services (LAGROTECH), Kisumu.
SUPERVISION OF POST GRADUATE STUDENTS (PhD)	
2008	Dr. Patrick Muthoka. **Title**: Comparative longevity studies in selected succulent genera: *Euphorbia*, *Kalanchoe* and *Edithcolia*. **PhD,** Maseno University, 2008.
2014	Dr. Daniel Pande. **Title**: Genetic variability and virulence of maize streak virus, **PhD,** Maseno University **2014.**
2016	Dr. Fanuel Kawaka. **Title**: Effects of organic and inorganic nitrogen sources and native Rhizobial strains on nodulation and yield of common Bean in western Kenya. **PhD,** Maseno University **2016**.
2016	Dr Caleb Olweny. **Title:** Genetic Diversity and farmers' indigenous knowledge of sweet sorghum in Kenya. PhD, Makerere University, Uganda, **2016**

2017	Dr. Peter Mbogo. **Title**. Breeding and screening of maize for *Striga hermonthica* resistance. PhD, Maseno University, **2017**.
2020	Dr Dorothy Akinyi. **Title**: Physiological and molecular mechanisms of iron-toxicity tolerance in rice and implication for breeding. PhD, Maseno University 2021.
MASTER OF SCIENCE (Genetics and Plant Breeding)	
2021	Douglas Ochiel. **Title.** Response of selected sorghum (*sorghum bicolor* (l.) moench) genotypes to *striga hermonthica* (del.) benth in western Kenya. Msc, thesis **2020** Maseno University
2017	Joshua Omondi Otieno. **Title**. Phenotypic variation in morphology, yield and seed quality in selected accessions of leafy Amaranths. **MSc. Thesis, 2017**, Maseno University
MASTER OF SCIENCE (Agronomy)	
2010	Absalom Illa, Effect of Plant density on IR Resistant Maize under bean Intercrop. **Msc. Thesis, 2010**, Maseno University
MASTER OF SCIENCE (Genetics and Plant Breeding)	
2010	Peter O Mbogo, **Title**. Effects of gray leaf spot (*Cercospora zeamaydis* L) on maize and genetics of resistance **Msc. Thesis, 2010**, Maseno University
2008	Johnstone K Kwach. **Title**: Multilocational testing and farmer participatory evaluation of sweet potato [*Ipomoea batatas* (L.) Lam.] varieties in Southwest Kenya for commercial and domestic use. **Msc. Thesis, 2008**, Maseno University
JOURNAL PUBLICATIONS	
2020	Onyango DA, Entila F, Egdane J, Pacleb M, Katimbang ML, **Dida MM**, Ismail AM, Drame KN. 2020.Mechanistic understanding of iron toxicity tolerance in contrasting rice varieties from Africa: 2. Root oxidation ability and oxidative stress control. **Funct Plant Biol. 47**(2):145-155. doi: 10.1071/FP19054

2019	Dorothy A. Onyango, Fredrickson Entila, **Mathew M. Dida**, Abdelbagi M. Ismail and Khady N. Drame **2019**. Mechanistic understanding of iron toxicity tolerance in contrasting rice varieties from Africa: 1. Morpho-physiological and biochemical responses. **Funct Plant Biol 46**(1) 93-105
2018	Fanuel Kawaka, Huxley Makonde, **Mathews Dida**, Peter Opala, Omwoyo Ombori, John Maingi, John Muoma. **2018**. Genetic diversity of symbiotic bacteria nodulating common bean (Phaseolus vulgaris) in western Kenya. **PloSONE**. **13**(11): e0207403.
2018	Peng Q,Gimode D, Saha D, Schröder S, Chakraborty D,X. Wang, **M. M. Dida**, R L Malmbergand Devos KM. **2018** UGbS-Flex, a novel bioinformatics pipelinefor imputation-free SNP discovery inpolyploids without a reference genome:finger millet as a case study.**BMC Plant Biology18:117**
2017	PandeD, MadzokereE, Hartnady P, KrabergerK, Hadfield J, RosarioK, Jäschke A, Monjane AL, Owor BE, **Dida MM,** Shepherd DN, Martin DP, Varsani A and Harkins GW **(2017**). The role of Kenya in the trans-African spread of maize streak virus strain A **Virus Research 232:** 69–76
2016	Gimode D, Odeny DA, de Villiers EP, Wanyonyi S, **Dida MM,** Mnene EM, Muchugi A, Machuka J, De Villiers SM. **(2016**) Identification of SNP and SSR Markers in Finger Millet Using Next Generation Sequencing Technologies **PLOS/ONE. 11**(7): e0159437.
2016	Mbogo, PO, **Dida, MM** and Owuor BO (2016*)* Effect of *Strigahermonthica* (Del.) Benth on yield and yield components of maize (*Zea mays* L.) hybrids in western Kenya **Journ Agric Research** 8 (8**)** :112-125
2015	Mbogo,P O, **Dida, MM** and Owuor B (**2015***).* Generation Means Analysis for estimation of genetic parameters for *Striga hermonthica* Resistance in Maize (*Zea mays* L.)**Journ Agric Research** 7(8): 43-55
2014	Olweny C. Jamosa J, **Dida MM**, Kimani W, Njuguna J, Githae D, Kiawa N, Yao L, Kosambo C, Sally C and P Okori (**2014**), High genetic diversity for improvement of sweet sorghum (*Sorghum bicolour* (L.) Moench) genotypes for sugar and allied products **Mo**l. **Plant Breeding5**: 29-35
2014	Kawaka F, **Dida MM**, Opala PA, Ombori O, Maingi J, Osoro N, Muthini M, Amoding A, Mukaminega **5**. D and J Muoma (**2014**). Symbiotic Efficiency of Native Rhizobia Nodulating Common Bean (*Phaseolus vulgaris* L.) in Soils of Western Kenya. **International Scholarly Research Notices**

2014	Lule D, De Villiers, S., Tsehay, S., **Dida, M.,** Fetene, M., Kimani, W. and Tesfaye, K. (**2014**). Genetic diversity and eco-geographical distribution of *Eleusine* species collected from Ethiopia. ***African Crop Sci Journ* 22** (1):45 – 57.
2013	Olweny C, Abayo G, **Dida M** and Okori P **(2013**).Screening of sweet sorghum (*Sorghumbicolor* (L.) Moench)varieties for sugar and biomass production. **Sugar Tech15(3):**258–262
2013	Olweny C, Ong'ala J, **Dida M** and Okori P **(2013**). Farmers' perception on sweet sorghum (*Sorghum bicolor* [L] Moench) and potential of its utilization in Kenya. **World Journ Agric Sciences** Vol **1(2):** 065-075.
2010	Illa A.O, Odhiambo G.D and **Dida M.M.** (**2010**). Increasing imazapyr-resistant maize yield by increasing plant density under natural *Striga hermonthica* infestation.**Agric. and Biol. Journ North America1(5) :**1061-1068
2010	Kwach, J. K., Odhiambo, G. O., **Dida, M. M.**, Gichuki, S. T. (**2010**). Participatory consumer evaluation of twelve sweetpotato varieties in Kenya. **African Journ Biotech 9**: 1600-1609
2009	Gichimu B.M., Owuor B.O. and **M. M. Dida** (**2009**). Comparing the yield components of three most popular commercial watermelon cultivars in Kenya with one newly introduced cultivar and one landrace. **Journ Plant Breed and Crop Sci Vol.1(4).** 065-071
2009	Muthoka, P.N., Hay, F.R., **Dida, M.M.**, Nyabundi, J.O., Probert, R.J. (**2009**), Moisture content and the longevity of seeds of six *Euphorbia* species in openstorage. **Seed Sci. & Technol**., **37**: 383-397
2008	**Dida, M.,** Wanyera, N., Harrison Dunn, M.L., Bennetzen, J., Devos, K (**2008)**. Population Structure and Diversity in Finger Millet (*Eleusine coracana*)
2008	Kwach J.K., Gichuki S.T., **Dida M.M**. and G.O. Odhiambo (**2008**). Multi-location on-farm evaluation of sweet potato varieties for commercial and domestic use in South western Kenya. **E. Afr. Agric. For. J. 74(2)** 127-138
2008	Gichimu B. M., B. O. Owuor and **M. M. Dida** (**2008**). Agronomic performance of three most popular commercial watermelon cultivars in Kenya as compared to one newly introduced cultivar and one local landrace grown on dystric nitisols under sub- humid tropical conditions. **Journ. Agric. &Biol. Sc.** Vol. 3 No, 5&6

2008	Gichimu B. M., B. O. Owuor and **M. M. Dida** (**2008)**. Assessment of four commercial watermelon cultivars and one local landrace for their response to naturally occurring diseases pests and non-pathogenic disorders in sub-humid tropical conditions. **Journ Agric. & Biol. Sc**. **Vol. 3**, No.5&6
2007	**Dida M.M.**, Srinivasachary, Ramakrisna S, Bennetzen JL, Gale MD, Devos KM (**2007**) The Genetic linkage map of finger millet, *Eleusine coracana*. **Theor ApplGenet**. **114**: 321-332
2007	Srinivasachary, **Dida MM,** Gale MD, Devos KM. **(2007**) Comparative analyses reveal high levels of conserved colinearity between the finger millet and rice genomes. **Theor Appl Genet**. **115**: 489-499
BOOK CHAPTER	
2007	Contributed a book chapter on **Vol.I** of Genome Mapping and Molecular Breeding in Plants (**Chap.10. finger millet**). CJ Kole (ed), Springer-Verlag, Heidelberg, Germany 2006. ISBN 3-540-34031-9
RESEARCH EXPERIENCE	
Principal-Researcher	Sustaining and Improving Maize Yields Using Lodging Resistant Genotypes and Augmentation of Soil Organic Carbon in Western **Funding agency**. Kenya. Kenya National Research Find (NRF) project No. NRF/2/MMC/172 (July2020- July 2023)
Project Leader	Partnership to deliver to market Striga weed resistant maize and finger millet varieties in Kenya and Uganda, **Funding agency. SIDA**, Through BioInnovate, ICIPE, **(**January 2018- December 2020)
Co-Investigator	Population genetics of grey leaf spot disease of maize in South Africa and Kenya, July, **Funding agency. NRF Kenya & NRF South Africa, (**2017- July 2019)
Co-Investigator	**BREAD ABRDC:** Development of Essential Genetic and genomic Resources for finger millet,. **Funding agency :American NSF** (July 2016- June 2021)
Co-Investigator	**PEARL2.** Unraveling the molecular genetics of finger millet blast disease and the existing resistance for the development of high yielding resilient varieties. **Funding agency: Bill and Melinda Gates Foundation. (**2015-2020**)**
Co-Investigator	Improving finger millet through exploitation of wild finger millet Germplasm (*Eleusine* Spp.). **Funding agency: Global Crop Diversity Trust. (**2015-2021**).**

Principal Investigator	Enhancing capacity of Maseno University Seed Unit to deliver to market resilient new maize varieties in Western Kenya. **Funding agency: USAID** through **Kenya Feed The Future Innovation Engine, Land O' Lakes,** Kenya. (2014-2016).
Co-Investigator	Delivering New Sorghum and Finger Millet Innovations for Food Security and Improving Livelihoods in Eastern Africa. **Funding agency:** SIDA through BioInnovate Project, ILRI, Nairobi, (2011-2014)
Principal Investigator	Characterization, genetic enhancement and Revitalization of finger millet in western Kenya. **Funding agency: FAO-** Benefit-Sharing Fund of the International Treaty. (2009-2011)
Principal Investigator	Technologies to Improve Maize productivity in nutrient depleted acid soils of western Kenya. **Funding agency: Kenya National Council for Science and Technology**. (2009 – 2010)
Co-Investigator	Diversity of mastreviruses across Africa, the Middle East and southern Asia. **Funding agency: *TWAS*** (2010-2012)
Investigator	From rice to finger millet: comparative mapping of blast resistance genes. **Generation Challenge Program fellowship** funded project. (2005-2006)

CONFERENCES

2013	**Dida MM**. 2013. Evaluation of Kenyan Finger millet accessions for Blast disease and Striga weed. A paper presented at the **1st Bio-innovate Regional Scientific conference.** 25th-27th Feb, 2013 at **UNCC-ECA**, Addis Ababa.
2009	Attended 6th Conference of the Global Consortium of Higher Education and Research for Agriculture held on **23rd-27th November 2009** at **Kenyatta International Conference Centre,** Nairobi, Kenya.
2006	**Dida MM**, ME Sorrells, Devos KM.2006. Rice-finger millet comparative mapping of blast resistance genes. **A poster** presented at the Generation Challenge Program Annual research meeting at **Caeser Business Hotel, Sao Paulo, Brazil,** Sept.12-16th, 2006.
2006	Attended and Presented a Poster at Plant and Animal Genome XIV conference, **Town and Country Hotel**, **San Diego, CA**, January 13-18, 2006.
2005	Attended *Plant &Animal Genome XIII conference*, **Town and Country Hotel, San Diego, CA,** January 10-15, 2005.

CONSULTANCIES

Client	Task
Land O'Lakes, INC., 2013	Impact Evaluation of JibuPlots® Project in Kenya
Kenya Agricultural and Livestock Organization (KALRO), 2020-2021	Improved Bean Technology for Food and Nutrition Security in Kisumu and Siaya Counties - IBT Project-Up-calling promotion of nutrient dense new bean varieties

COMMUNITY SERVICE

Board of Management Member	Ramogi Achieng Oneko Secondary School, 2009-2011
Member	Kenya Science, Technology and Innovation (KESTI) Awards Committee/Jury, 2015
External Examiner	Department of Biological Sciences, Masinde Muliro University of Science and technology (MMUST)-**2018- to Present**
Reviewer	National Commission for Science and Technology and Innovation (NACOSTI) and National Research Fund, Kenya, (**2013-2018**).

REFEREES

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Email: d.odeny@cgiar.org

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