



Inspiring Innovation and Leadership

KARATINA UNIVERSITY

STAFF PROFILE TEMPLATE



1. **Name:** [Dr. Dennis Maina]
2. **Designation:** [Lecturer, Director, Tea Institute]
3. **Employment details**

School: [Agriculture and Biotechnology]

Department: [Agricultural Sciences]

4. Contact Information

Email Address (dgatahi@karu.ac.ke / denmagkenya@gmail.com):

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Google scholar link: <https://scholar.google.com/citations?user=DMtEdPYAAAAJ&hl=en>

5. Professional Description

Dr. Dennis Maina is a Horticulturist, Applied Nanotechnologist and Lecturer. Dennis has teaching, research, outreach, industrial production and management skills acquired from the varied working experiences. Also, a trainer of trainers on Integrated Pest management, Organic Farming, Sustainable/Conservation Agriculture, Good Agricultural Practices, Greenhouse Farming, Food Safety Management System and Safe Use of Agrochemicals. My research skills are in application of organic nanoparticles and use of biological agents in solving agricultural challenges to increase food quality and quantity with maximum environmental care. I am a member of the Horticulture Association of Kenya.

6. **Area/ Field of specialization:** [Horticulture; Organic Agriculture]

7. **Research interests:** Applied nano-agrochemicals, Organic agriculture, organic polymers, environmental conservation, regeneration agriculture, value addition]

8. List of some key published works.

- i. Aoko, P.,¹ Chimoita, E.L.,² Nzube, M.F.,³ **Maina, D.**,⁴ Jadesola, E.⁵ & Syanda, J. 6. (2022). Knowledge management structure and effectiveness of interventions on fall army worm (FAW) management among smallholder maize farmers in Kilungu, Makueni County, Kenya. (ISSN 1607-9345), 2022, No. 21 (1):32-42. Available from <http://repository.ruforum.org>
- ii. **Gatahi, D.**, Chimoita, E., Kihurani, A. & Wanyika, H. (2022). Effect of pre-harvest application of Chitosan and Silicon on growth, Lycopene content and shelf-life of tomato (ISSN 1607-9345). No. 21 (1):8-18. Available from <http://repository.ruforum.org>.
- iii. **Gatahi D.**, Kihurani A. and Wanyika H. (2022). Control of Bacterial Wilt in Tomato Using Chitosan Intercalated with Tea Extracts. *Afr. J. Hort. Sci.* (March 2022). 19:1-12 <https://www.journal.hakenya.net>
- iv. **Gatahi D.** and Nyoro F. (2021). Effect of Drying Method on Volatile Nutraceuticals and Microbial Growth in *Moringa oleifera*. *International Journal of Horticultural Science and Technology*. Vol. 8, No. 4, pp. 315-322 <https://doi.org/10.22059/ijhst.2021.313592.411>
- v. **Gatahi D. M.** (2020). Challenges and Opportunities in Tomato Value Chain and Sustainable Standards. *International Journal of Horticultural Science and Technology* Vol. 7, No. 3; pp 235-262 [10.22059/ijhst.2020.300818.361](https://doi.org/10.22059/ijhst.2020.300818.361)
- vi. **Gatahi D. M.**, Wanyika H. N., Kavoo A. M., Kihurani A. W., Ateka E. M. (2016). Enhancement of bacterial wilt resistance and rhizosphere health in tomato using bionanocomposites. *International Journal of Horticultural Science and Technology* Vol. 3, No. 2; 129-144.
- vii. **Gatahi D**, Wanyika H*, Kihurani A and Gatebe E. (2016). Effect of Biological Control Antagonists Adsorbed on Chitosan Immobilized Silica Nanocomposite on *Ralstonia solanacearum* and Growth of Tomato Seedlings. *Advances in Research*, ISSN: 2348-0394, Vol.: 6, Issue: 3
- viii. **Gatahi D M**, Wanyika H N*, Kihurani A W, Gatebe E G (2016). Synthesis of Chitosan Immobilized Silica Nanocomposite adsorbed with Biocontrol Antagonists for the control of Bacterial Wilt Disease. *Journal of Kenya Chemical Society* Vol. 9: Issue 1, 2016 Pages 111-134
- ix. **Gatahi Dennis Maina**, Wanyika Harrison, Gohole Linnet, Evans Ligare Chimoita (2015). Influence of Plant Metabolites on Flea Beetle Infestation in Spider Plant Morphotypes. *Universal Journal of Plant Science* 3(3): 49-57
- x. Evans L. Chimoita, **Gatahi Dennis Maina**, Dennis Opiyo Olila, Joseph P. Gweyi Onyango (2014). The Role of Farmer Field Schools Approach in Improving Tea Production among Smallholding in Kenya. *Universal Journal of Agricultural Research* 3(1): 4-10

PATENT

- xi. **Dennis Gatahi** and Harrison Wanyika
Synthesis of biocontrol-chitosan-silica nanocomposites pesticide for control of bacterial wilt in tomato. *INDUSTRIAL PROPERTY JOURNAL* NO. 2017/09, YEAR 2017
2017-09-01 | Patent | Investigation, Conceptualization, Funding acquisition, Writing - original draft, Data curation, Methodology, Draft Patent.