

Curriculum Vita

Refaat A. Abohassan

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Personal Information:

- Date of Birth: 15 September 1975
- Nationality: Saudi Arabia
- Marital Status: Married

Educational Information:

- Bsc. General Agriculture - King Abdulaziz University Saudi Arabia (1998)
 - Msc. Thesis Title: Woody Biomass Production from Eucalypt trees Grown in Hada A'sham Region of Saudi Arabia - King Abdulaziz University, Saudi Arabia (2001)
 - Msc. Thesis Title: Carbon Dynamics in a Temperate Agroforestry System in southern Ontario, Canada - University of Guelph, Ontario (2004)
 - PhD. Thesis Title: Productivity and Nutrient Dynamics of *Avicennia Marina* (Forsk.) Vierh. Mangroves grown on the Red Sea coast of Saudi Arabia-Bangor University, UK.
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Areas of Interest:

- Agroforestry applications in Arid Zones
 - Mangrove and marine ecosystem management
 - Desertification and sand dune fixation
 - Environmental interactions in forestry, with particular interest in green house gases dynamics.
 - Biomass and nutrient cycling in forest ecosystems
 - Arid land forestry and natural resources
 - Medicinal and aromatic plants
 - Agarwood and sandalwood cultivation in mountainous regions
 - Cellulosic products of local woody tree species
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Teaching responsibilities:

- Principles of Forestry
 - Forest Menstruations
 - Principles of Natural Ranges
 - Natural forest and range protection
 - Afforestation in Arid Zones
 - Agroforestry in arid lands
 - Medicinal and aromatic trees and shrubs
 - National Parks and Wild Life Conservation
 - Tree Physiology and Wood Formation
 - Trees and Shrubs in the Kingdom of Saudi Arabia
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Major Skills:

- Uses of Soda-Lime absorption techniques for soil respiration.
- Uses of lysimeters for collecting water from soil profile
- Uses of Leco® carbon analyzer (loss in ignition)
- Fiber analysis in plant tissues using ANKOM technology method of fiber analysis.
- Soil preparation, physical and chemical analysis techniques
- Uses of Technicon Auto Analyzer for nitrogen analysis.

- Uses of SAS, SPSS, Minitab and SigmaPlot statistical, and graphing packages
 - Wood chemical extraction and analysis
 - Tree mensuration techniques
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Publications:

- Alamri Dhafer Ali, Samir G. Al-Solaimani, **Refaat A. Abohassan**, Jo`rg Rinklebe and Sabry M. Shaheen. 2021. Assessment of water contamination by potentially toxic elements in mangrove lagoons of the Red Sea, Saudi Arabia. *Environmental Geochemistry and Health*, Springer, <https://doi.org/10.1007/S10653-021-00956-5>
- Elfeel, A.A. and **R.A. Abohassan**. 2019. Compost And Foliar Iron Enhanced Fruit Production And Quality Of Grewia Tenax Under Stressed Environment. *The Journal of Animal & Plant Sciences*, 29(3): 2019, Page: 754-760 ISSN: 1018-7081
- R A. Abohassan** and A.O Abusuwar. 2017. Effects of Moringa olifera leaf extracts on growth and productivity of three leguminous crops. *Legume Research*. Print ISSN:0250-5371 / Online ISSN:0976-0571. DOI: 10.18805/LR-366.
- Abusuwar A.O and **R A. Abohassan**. 2017. Effect of Moringa olifera Leaf Extract on Growth and Productivity of Three Cereal Forages. *Journal of Agricultural Science* 9(7): 236-243 ISSN 1916-9752 E-ISSN 1916-9760.
- Hindi, S. S. Z., and **R.A. Abohassan**, R. A. 2016. Cellulosic Microfibril and Its Embedding Matrix within Plant Cell Wall. *International Journal of Innovative Research in Science, Engineering and Technology*, DOI:10.15680/IJIRSET.2016.0503004, 5(3): 2727-2734.
- Elfeel, A.A and **R.A. Abohassan**. 2015. Response of balanites aegyptiaca (L.) del. var. aegyptiaca seedlings from three different sources to water and salinity stresses. *Pakistan journal of botany* 47(4): 1199-1206.
- Hindi, S. S. Z., and **R.A. Abohassan**, R. A. 2015. Cellulose triacetate synthesis from cellulosic wastes by heterogeneous reactions, *BioRes*. 10(3), 5030-5048. 12p.
- Muhammad Zahid Ihsan, Abdul Khaliq, Amar Matloob, Fathy Saad El-Nakhlawy, **Refaat Atta-allah Ahmed**, Ihsanullah Daur and Zubair Aslam. 2014. Influence of Herbicides Applied Alone or Supplemented with Manual Weeding on Weed Growth, Rice Yield and Grain Quality in Direct-Seeded Rice (*Oryza sativa* L.) Philipp Agric Scientist, 97 (4): 395–402.
- Kimondo. J.M., Agea, J.G., Okia, C.A., Woiso, D.A., **Abohassan, R.A.A.**, Mulatya, J. and Teklehaimanot, Z. 2014. Distribution and regeneration status of Vitex Payos (Lour.) Merr. In Kenyan drylands. *Journal of Horticulture and Forestry* 6(9): 81-91.

Alshehry, A.Z., Zaitoun, A.A. and **R.A. Abohassan**. 2014. Insecticidal activities of some plant extracts against subterranean termites, *Psammotermes hybostoma* (Desneux) (Isoptera: Rhintermitidae). *International Journal of Agricultural Sciences*, 4(9): 257-260.

Elfeel, A. A.; Bakhawain, A. A.; **Abohassan, R. A.** 2013. Interspecific Interactions And Productivity Of *Leucaena Leucocephala* And *Clitoria Ternatea* Under Arid Land Mixed Cropping. *Journal Of Animal And Plant Sciences*, (23):5 1424-1430.

Bakhawain, A.A., Daur, I., **Abohassan, R.A.** and F.S. El-Nakhrawy. 2013. Response Of Genetically Divergent Pearl Millet [*Pennisetum Glaucum* (L.) R. Br.] Varieties To Different Organo-Mineral Fertility Management. *Pakistan Journal of Botany*, 45(5): 1657-1661.

Elfeel, A.A., Hindi S.Z. and **R.A.A. Abohassan**. 2013. Stomatal conductance, mineral concentration and condensed tannin in three *Balanites aegyptiaca* (L.) Del. Intra-specific sources affected by salinity stress. *Journal of Food, Agriculture & Environment*, 11(1):466-471.

Abohassan, R.A. 2013. Heavy metal pollution in *Avicennia marina* mangrove systems on the Red Sea coast of Saudi Arabia. *Journal of King Abdulaziz University-Meteorology, Environment and Arid Land Agriculture Sciences*. 24(1):35-53. Doi: 10.4197/Met. 24-1.3

Kimondo, J. M., Agea, J. G., Okia, C.A., **Abohassan, R.A.A.**, Ndeunyema, E. T., Woiso, D. A., Teklehaimanot, Z. and Jackson Mulatya. 2012. Physiochemical and nutritional characterization of *Vitex payos* (Lour.) Merr. (Verbenaceae): An indigenous fruit tree of Eastern Africa. *Journal of Horticulture and Forestry*, 4(10): 161-168. doi: 10.5897/JHF12.010

Abohassan R.A.A, Okia C.A, **Agea J.G**, Kimondo J.M, & McDonald M.M 2012. Perennial Biomass Production in Arid Mangrove Systems on the Red Sea Coast of Saudi Arabia. *Environmental Research Journal*, 6: 22-31.

Agea J.G, Okia C.A, **Abohassan R.A.A**, Kimondo J.M, Obua J, Hall J & Teklehaimanot Z (2011). Wild & Semi-Wild Food Plants of Bunyoro-Kitara Kingdom of Uganda: Growth forms, collection niches, parts consumed, consumption patterns, main gatherers & consumers. *Environmental Research Journal*, 5(2): 74-86. DOI: 10.3923/erj.2011.74.86

Agea, J.G., Kimondo, J.M., Okia, C.A., **Abohassan, R.A.A.**, Obua, J., Hall, J., Teklehaimanot, Z. 2011. Contribution of Wild and Semi-Wild Food Plants to Overall Household Diet in Bunyoro-Kitara Kingdom, Uganda. *Agricultural Journal* 6(4) 134-144p. DOI: 10.3923/aj.2011.134.144

Kimondo J.M, Okia C.A, Agea J.G, **Abohassan R.A.A**, Mulatya J & Teklehaimanot Z .2011. Estimating fruit yield from *Vitex payos* (Lour) Merr. in semi-arid eastern Province of Kenya: Application of allometric equations. *Research Journal of Applied Sciences*, 6(3): 153 - 163.

Okia C.A, **Agea J.G**, Kimondo J.M, **Abohassan R.A.A**, Okiror, P, Obua J, & Teklehaimanot Z 2011. Use and Management of *Balanites aegyptiaca* in Drylands of Uganda. *Research Journal of Biological Sciences*, 6:15-24.

Okia C.A, Agea J.G, Kimondo J.M, **Abohassan R.A.A**, Obua J & Teklehaimanot Z 2011. Harvesting and processing of *Balanites aegyptiaca* leaves and fruits for local consumption by rural communities in Uganda. *Journal of Food technology*, 9(2): 83 - 90.

Agea, J.G., Okia, C.A., **Abohassan, R.A.A.**, Kimondo, J.M., Tumwebaze, S.B., Ndemere, P., Buyinza, P. and Obua, J. 2010. The Impact of Land Use and Forest Activities on Tree Species Composition and Structure on the Edges of Budongo Forest Reserve, Uganda. *Botany Research Journal* 3(1-4): 7-13p.

Kimondo, J.M., Agea, J.G., Okia, C.A., **Abohassan, R.A.A.**, Mulatya, J. and Teklehaimanot, Z. 2010. *Vitex payos* (Lour.) Merr Fruit Tree in the Drylands Areas of Eastern Kenya: Use, Marketing and Management. *Botany Research Journal* 3(1-4): 14-21p.

Peichl, M., Thevathasan, N.V., Gordon, A.M., Huss J. and **Abohassan, R.A.** 2006. Carbon sequestration potentials in temperate tree-based intercropping systems, southern Ontario. Canada. *Agroforestry systems* (66): 243-257.

Projects and Conference Participation

Introduction and cultivation of agarwood and sandalwood in Jazan region. Joint project: KAU, JMDA and Jazan University (**Ongoing. 2021**).

Sherif Shawki Zaki Hindi and **Raefat Atalla Abohassan**. 2014. For space elevator rope: Production of exfoliated graphene and high surface charged-cellulose nanocrystals as stabilizer synthesized by lyophilized acidic hydrolysis. Paper presented at the Space Elevator Conference, August 22-24, Seattle, Washington, USA.

Abohassan, R., A.M. Gordon and N.V. Thevathasan. 2004. Carbon Dynamics in a Temperate Agroforestry System in southern Ontario, Canada - University of Guelph, Ontario. *Oral participation in the First World Congress of Agroforestry*

Kandeel, S.A., Abohassan, A and **Abohassan, R.A.** 2000. Tree biomass utilization for quality charcoal production in Saudi Arabia. *For. Prod Soc. 54th Conference, Tahoe, Nevada, USA.*

Workshops and seminars

- The twentieth afforestation symposium: Afforestation appropriate to the environmental conditions of Makkah (the central region and the holy sites), 20 March 2019, Holy Makkah municipality

- INTERNATIONAL WORKSHOP ON COMBATING DESERTIFICATION, 2018, Ministry of Environment Water and Agriculture, Riyadh Saudi Arabia

-Islamic Development Bank's Agricultural Forum, 22-23 March 2017- Islamic Development Bank, Jeddah

- Workshop " Growing The Moringa Tree" (in Arabic), 2017. The Ministry of Environment, Water and Agriculture, Makkah, Saudi Arabia.

-Workshop " The moringa tree, true or bare imagination" (In Arabic), 2014, Madina, Saudi Arabia

- Workshop " returned KAU faculty program" (In Arabic), 2012, Centre for Teaching and Learning Development, King Abdulaziz University, Jeddah, Saudi Arabia

-Quality assurance of E-Learning, Center for teaching and Learning Development, King Abdulaziz University, Jeddah, Saudi Arabia. February, 2012.

-Regional workshop on policies and plans to protect the green belt against desertification. ISESCO, Sharja, UAE. December, 2011.

-Preparation of research proposals submitted for funding in the Researcher Program, Deanship of Scientific Research, King Abdulaziz University, Jeddah, Saudi Arabia. May, 2011.

-World Environmental Day: Trees at your service. King Fahd Air Base, Taif, Saudi Arabia. 2011.

Patents

Hindi S and R. Abohassan. Method of Making Nanocrystalline Cellulose. 2018 US Patent 2018, Patent No.: US 10,144,786 B2 at Litman Law (Patent Law Building, 8955 Center Street, Manassas, VA 2010) in the United States sponsored by King Abdullaziz University.