



Elliasha Hajari

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Biological Sciences

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South Africa

I am currently working on a project in collaboration with the South African Sugarcane Research Institute (SASRI). This involves investigating inorganic nitrogen uptake and use in sugarcane using the *in vitro* system. This work forms part of a larger project aimed to genetically engineer sugarcane to use applied nitrogen fertilisers more efficiently. I am also a member of the subcommittee to the advisory committee on genetically modified organisms (GMOs) in SA where I assess the scientific merit of applications for the release of GMOs in SA. My PhD was on the cryopreservation of germplasm of an indigenous species that produces recalcitrant seeds.

CURRENT RESEARCH

Topic

Inorganic nitrogen uptake and use in sugarcane *in vitro*

Methodology

- Plant tissue culture
- Biochemical assays for detection of nitrogen depletion from culture medium
- Michaelis-Menten kinetics
- Physiology

Application

Characterise inorganic nitrogen uptake in sugarcane varieties of commercial importance

The established protocol can be used as a tool to study nitrogen uptake and assimilation

UKZN main Publications

1. Hajari, E, Watt, M.P, Mycock, D.J. and McAlister, B. 2006. Plant regeneration from induced callus of improved *Eucalyptus* clones. *South African Journal of Botany* **72**: 195 – 201.
2. Hajari, E, Berjak, P, Pammenter, N.W. and Watt, M.P. 2009. Micropropagation of recalcitrant-seeded *Ekebergia capensis* Sparrm. using *in vitro* nodal segments and roots. *Journal of Horticultural Science and Biotechnology* **84**: 87 – 91.
3. Hajari, E, Berjak, P, Pammenter, N.W. and Watt, M.P. 2010. A novel means for cryopreservation of germplasm of the recalcitrant-seeded species, *Ekebergia capensis*. *CryoLetters* **32(4)**: 308 – 316.

Past Researches

Future Interests

1. Research
2. Biosafety regulation
3. Science technology development and innovation

Extra Interests

Reading, shopping, yoga, sports fan.