PhD student position

Promotion of drought stress resistance in maize by arbuscular mycorrhiza symbiosis

We are looking for a PhD student to work in the Gutjahr lab at at the Biocenter of the University of Munich (LMU), Germany. The position is available for 3 years starting at the earliest convenience.

You will characterize growth and drought stress resistance in response to arbuscular mycorrhiza (AM) of European maize lines to identify variation in response to AM among the lines. This will be important pioneering work to find later on the quantitative trait loci that determine the amplitude of the response. AM is a symbiosis between plant roots and fungi of the phylum Glomeromycota, which is based on the exchange of nutrients: The fungus receives organic carbon from its host and in turn provides mineral nutrients and especially phosphate to the plant. The symbiosis has also been associated with enhanced plant resistance against abiotic stresses such as drought. Due to resulting benefits for plant growth the symbiosis is of great interest to application in sustainable agriculture. The project will be conducted within the BMBF-funded consortium MAZE, providing ample opportunities for interaction with experts in maize genetics, developmental biology, stress resistance and breeding.

More information can be found here: http://www.europeanmaize.net

We are looking for a strongly motivated candidate who should be intellectually independent, experimentally accurate, have good management skills, be able to manage large amounts of samples and to conduct research independently after an initial training period. Prior experience/background in plant-microbe interactions, plant breeding, statistics, quantitative genetics and/or maize genetics is an advantage. Excellent writing and communication skills in English are a must, German can be an advantage.

Find information about the Gutjahr lab here:
http://www.genetik.bio.lmu.de/research/gutjahr/index.html

Please send your application including your CV, the names of two referees and a motivation letter stating why you are interested in the topic and why you would be the right candidate to make progress in the field by email to: caroline.gutjahr@lmu.de

Applications will be accepted until the position is filled but preferably until the 31st of December 2016.