MICHIGAN STATE
UNIVERSITY

Two Ph.D. graduate research assistantships are available working with Drs. Tom Fernandez and Bert Cregg in the Department of Horticulture at Michigan State University as part of the 5-year USDA SCRI Clean WateR^3 project. Start date can be as early as the Spring Semester (January) of 2015. Dissertation topics include investigating the effects of irrigation management and runoff water remediation (pesticide and nutrient) using subsurface bioreactors on recycled water quality, and the effects of recycled and remediated water on plant growth, quality and physiology in nursery production systems. Research will be conducted at the MSU Horticulture Teaching and Research Center on the main MSU campus and at cooperating grower sites. Ph.D. graduate research assistantships include a stipend, tuition, and health benefits.

The research is part of a US Department of Agriculture – National Institute of Food and Agriculture –Specialty Crop Research Initiative competitive grant entitled 'Clean WateR^3 - Reduce, Remediate, Recycle – Enhancing Alternative Water Resources Availability and Use to Increase Profitability in Specialty Crops'. The program is comprised of a national team of scientists working to encourage use of alternative water resources. Graduate students are expected to be integrated members of the team and will participate in national annual team meetings to present research updates, future plans, and additional research and collaborations.

The Clean WateR^3 team will assist the grower decision-making process by providing science-based information on nutrient, pathogen, and pesticide fate in recycled water both before and after treatment, average cost and return-on investment of technologies examined, and model-derived, site specific recommendations for water management. The trans-disciplinary Clean WateR^3 team will develop these systems-based solutions by integrating sociological, economic, modeling, and biological data into a user-friendly decision-support system intended to inform and direct our stakeholders' water management decision-making process.

Applicants with a primary interest in water quality, management and remediation should contact Dr. Tom Fernandez (fernan15@msu.edu, http://www.hrt.msu.edu/tom-fernandez), applicants with a primary interest in plant physiology, growth and quality should contact Dr. Bert Cregg (cregg@msu.edu, http://www.hrt.msu.edu/bert-cregg) although the successful students will be expected to work closely and cross-compatibly in both areas. Applicants should also apply online at http://www.hrt.msu.edu/prospective-students-2/. It is important that candidates both apply online and contact Drs. Fernandez and/or Cregg by email. Screening of applicants will be ongoing as applications are received.

DEPARTMENT OF
HORTICULTURE

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