



## **Graduate Research Assistantship Plant Breeding for Drought Tolerance**

A graduate research assistantship is available beginning in spring of 2010 for study leading to a Ph.D. degree in plant breeding and genetics, with an emphasis on drought tolerance in wheat. The student will be part of a regional team involving plant breeders, geneticists, and physiologists at Colorado State University, University of Nebraska-Lincoln, and Oklahoma State University, whose goal is to improve abiotic stress tolerance in winter wheat in the semi-arid Great Plains. The ideal candidate will have academic training and/or experience in plant breeding, plant physiology, molecular markers, and statistical analysis and an interest in teaching. The assistantship provides \$21,000 per year plus tuition. Because of funding constraints, the assistantship is limited to U.S. citizens or permanent residents.

The assistantship is funded by a USDA grant to enhance research and education capacity in plant breeding for drought tolerance. The project's research goal is to improve adaptation to drought in winter wheat by incorporating germplasm primarily from the wild relative *Aegilops tauschii*. Research will involve field, greenhouse, and growth chamber evaluation of physiological and yield-related traits, and determination of *A. tauschii* chromosome segments that are preferentially retained in the most drought tolerant progeny. The project will also develop and offer a distance education course and a field-oriented short course on the genetics, breeding, and physiology of drought stress tolerance.



Students in the program will receive an interdisciplinary education relevant to a major challenge facing global agriculture, improving crop performance in moisture-stressed environments. They will gain experience in field, greenhouse, and laboratory research within a dynamic winter wheat breeding and genetics program. Students will also have the opportunity to interact and collaborate with scientists and students in other academic units of the University, including the Program in Molecular Plant Biology (<http://www.plantbiology.colostate.edu>), and with cooperating USDA scientists.

This position is available for a student starting in spring or summer of 2010. Applications will be accepted until the position is filled.

**For more information**, please contact Dr. Patrick Byrne, Department of Soil & Crop Sciences, Colorado State University, Ft. Collins, CO 80523-1170. Phone: 970-491-6985. Email: [Patrick.Byrne@colostate.edu](mailto:Patrick.Byrne@colostate.edu). Information on the department's graduate program and application procedures is available at <http://soilcrop.colostate.edu/grad/index.html>.