M.S./Ph.D Graduate Assistantships – Controlling multiple herbicide-resistant weeds through multi-tactic weed management

We are seeking a motivated graduate student to start September 2016 or January 2017 on a degree in Weed Ecology in the Department of Plant Science and Landscape Architecture at the University of Maryland. Students would be co-advised by Dr. Steven Mirsky (USDA-ARS) and Dr. Burkhard Schulz (UMD) who have expertise in soil science, agronomy, weed ecology, and plant molecular biology. Research will investigate the application of multi-tactic weed control of herbicide resistant weeds in agronomic systems (corn and soybean) and their mechanistic underpinnings. Tactics include harvest-time weed seed control, cover crop use, herbicides, and spatio-temporal management of soil nitrogen. Students will have the opportunity to conduct field and laboratory studies, developing their knowledge in applied weed ecology, plant physiology, and molecular biology. It is expected that students will develop and work on both applied and basic weed ecology questions; specifically, the applicant will be expected to test hypothesis by linking applied weed science to relevant mechanisms using plant physiological and/or molecular tools. The broadened expertise for an interdisciplinary project like this will be provided through close collaboration with Drs. Mirsky and Schulz. Applicants must be excellent communicators and listeners who thrive in collaborative environments.

Ph.D and M.S. applicants should have a solid foundation in one or more areas of weed science, ecology, soil science, agronomy, molecular biology, plant physiology, statistics and/or modeling. Ph.D. applicants should have earned a degree at the master’s level or comparable in the study of weed science/ecology, agronomy, molecular biology, plant physiology, and/or plant ecology. However, applicants with significant field, laboratory, or work experience will also be considered. The candidate must be able to work both independently and as a member of a team. Preference will be given to those with combined field and laboratory experience. Integrity, enthusiasm, and creativity are required.

For more information about the project/research opportunities, please contact Dr. Steven Mirsky (steven.mirsky@ars.usda.gov) and Dr. Burkhard Schulz (bschulz1@umd.edu). For more information on the graduate program and links to apply, please visit: http://psla.umd.edu/academic-programs/plant-biology-biotechnology-programs/plant-biology-and-biotechnology-graduate.