

Post-Doctoral Researcher

Degree and area of specialization

PhD required in Plant or Soil Sciences with an emphasis in agronomic production.

Background and principal duties

This position at the University of Wisconsin-Madison will contribute to collaborative projects by UW-Agronomy and USDA-ARS scientists that are aimed at enhancing crop yields and soil conservation through the interseeding of alfalfa into silage corn as a dual purpose cover and forage crop. Previous studies by this group have identified prohexadione-calcium as an effective plant growth retardant (PGR) for enhancing the establishment and subsequent yield of alfalfa interseeded into corn. Current and future studies will optimize management practices (e.g. rates and timing of PGRs and nitrogen fertilizer applications, weed control methods, variety/hybrid selection, seeding methods, etc) to maximize the reliability, productivity, and environmental benefits of this production system. The post-doctoral associate will be expected to complete existing projects and to design and carry out new experiments relevant to this area of research. Work will be conducted under the direct supervision of Mark Renz (associate professor and extension weed specialist). The employee will specifically be employed to carry out the following work.

1. Complete data collection and statistical analyses of five studies conducted from 2012 to 2016 and contribute to the preparation of manuscripts from these studies for submission to peer reviewed journals.
2. Design, setup, conduct, summarize, and publish novel new experiments aimed at further improving the reliability, productivity, and environmental benefits of the corn-interseeded alfalfa production system.
3. Supervise undergraduate student hourly workers that assist in data collection and sample preparation.

Type of relevant work experience

A minimum of three years of experience in research is required with at least one year of experience in field-based agronomic research. Experience with forages is desired, but not required. Candidates will be expected to develop statistically sound experiments, collect appropriate data, and maintain experiments throughout the course of the year. This research will involve extensive fieldwork that will involve full days of data collection under potentially adverse (e.g. hot, wet) environmental conditions. Successful candidates will be expected to function efficiently and independently with minimal supervision. Excellent oral and written communication skills in English, and the ability to work well in a collaborative research environment are essential. Funding is currently available for 1.5 years and a full two years of funding is anticipated.

Additional information

Individual must be able to obtain a valid Wisconsin Driver's license and Wisconsin certified Pesticide Applicator's license within 6 months of employment and be able to conduct fieldwork under adverse conditions. Field activities may involve lifting equipment/material in excess of 50 lbs.

For further information, please contact Mark Renz (mrenz@wisc.edu) or John Grabber (john.grabber@ars.usda.gov).