

Postdoctoral crop-climate modeler for a USDA NIFA Project Entitled “Improving Agricultural Water Use and Nutrient Management to Sustain Food and Energy Crops Production in the Corn Belt”

*Earth System Science Interdisciplinary Center
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We are seeking one highly motivated postdoctoral associate to support the dynamic crop growth modeling for a project funded by the United States Department of Agriculture (USDA)/National Institute of Food and Agriculture (NIFA). The project’s goal is to develop a predictive decision support Dashboard for Agricultural Water use and Nutrient management (DAWN) to sustain food and energy crop production in the Corn Belt (<https://dawn.umd.edu>). The post-doctoral associate will focus on the development, evaluation, and application of an advanced crop-modeling system. This will involve calibrating, testing, and analyzing a suite of crop growth models and coupling them with a regional climate model. The resulting coupled system will then be used to generate more accurate seasonal forecasts of crop yields, carbon uptake, and nutrient loading that can be shared directly with farmers. The associate will also be actively involved with the overall project activities as part of an interdisciplinary team that includes research, extension, and education specialists. Salary is commensurate with experience and University benefits will be included.

Qualifications:

Applicants should have a Ph.D. (within 5 years) in agricultural, atmospheric or climate sciences, and a strong background in crop dynamics and model development. They must have experience and skill in programming (particularly Fortran and C) as well as analytical skill in model evaluation and crop-climate interaction. Skills in parallel computing, machine learning, and GIS application are desired and experience in mesoscale regional climate models encouraged. Strong verbal and written English communication skills are required.

To apply:

Interested applicants should submit a cover letter, CV, and contact information for three references to Professor Xin-Zhong Liang at xliang@umd.edu. The position is available immediately, and applications will be reviewed on a rolling basis until the position is filled.