

## Brief Backgrounder Abdullah A. Jaradat

**Abdullah Jaradat** is an agronomist and administrator for the U.S. Department of Agriculture's North Central Soil Conservation Research Lab, a facility in the USDA's Agricultural Research Service in Morris, Minn. Since 2002, he has served as research leader, supervisory research agronomist and location coordinator at the ARS facility that supports national programs on climate change, land use and cropping systems. He also is an adjunct professor of agronomy and plant genetics at the University of Minnesota and adjunct professor of science at Southwest Minnesota State University. Previously, he led the plant genetics program at the International Center for Biosaline Agriculture in the United Arab Emirates and held several research and teaching positions throughout Jordan. He learned principles of sustainable, organic and low-input agriculture and practiced them on a mixed crop-livestock family farm in northern Jordan. He helped manage diverse crop rotations and tillage practices under a challenging semiarid Mediterranean climate, witnessing dramatic shifts in land use during the 1980s and 1990s brought about by changes in climate and population.

### Education and honors

He has a B.S. in dryland agriculture from the University of Damascus, an M.S. in agronomy from the University of Jordan and a Ph.D. in plant breeding and genetics from Washington State University.

### Research, extension and teaching focus

Jaradat's on-station and on-farm research has focused on conventional and organic production agriculture, with emphasis on modeling yield variation of crops under diverse management practices. At Minnesota State, he teaches senior courses in plant breeding and genetics and in experimental design. He has been visiting lecturer and university professor throughout the Middle East. He has experience as senior scientist at several international research centers in the Middle East, leading the establishment of networks that specialize in the biodiversity of crop landraces in different cropping systems. He has advised national programs in West and Central Asia, and in North Africa on agricultural research and development.

### Research funding

Currently he has a grant from the Land Stewardship Project to build a model for diversifying cropping systems in the Chippewa River Watershed in Minnesota. Recent grants include one from the University of Minnesota to evaluate solar panels (2008) and the U.S. Geological Survey for evaluation of wetlands for carbon sequestration (2004, followup in 2010). Previous grants (13) from international organizations and other agencies have funded research on wheat, barley, lentils, dryland agriculture, hydroponics for forage, crop residue management and crops for oil and biomass production.

### Recent scholarly publications

Jaradat lists 135 publications in peer-reviewed journals and 63 abstracts.

- Jaradat, A.A. 2011. Reproductive allocation and nutrient relationships in Cuphea: a semi-domesticated oilseed crop, *Journal of Plant Nutrition*, in press.
- Jaradat, A.A. Ecogeography, genetic diversity and breeding value of wild emmer wheat. *Australian Journal of Crop Science* 5(9): 1072:1086.
- Jaradat, A.A. 2011. Dynamics of mean-variance-skewness of cumulative crop yield impact temporal yield variance. *International Journal of Agronomy*. DOI:10.1155/2011/426582.
- Jaradat, A.A. and G. Boody. 2011. Spatio-temporal analyses of simulated biophysical processes in the Chippewa River Watershed. (Presented at Fourth Inter-Agency Conference on Research in Watersheds, Sept. 26-30, 2011, Fairbanks, Alaska.)

**Website:** <http://www.ars.usda.gov/mwa/ncscl>