# OSTROM WORKSHOP **RESEARCH SERIES**

## Jonathan Eldon

*Agricultural ecologist;*
*Ostrom Workshop Visiting Scholar*

"On-Farm Trials Identify Diverse Adaptive Management Options for Rainfed Production in Semi-Arid West Africa"

**Wednesday, March 21, 2018**
12:00 – 1:00 p.m.
Ostrom Workshop, 513 N. Park

Rainfed crop production is the primary means of food security and income generation for rural households in semi-arid West Africa, which contains a high level of agroecological and socio-economic heterogeneity. Official management recommendations focus on the use of purchased certified seed and inorganic fertilizers, but are based primarily on highly controlled on-station trials that do not capture the heterogeneity and complexity of on-farm conditions. This study established hundreds of on-farm field trials across Senegal and The Gambia that tested integrated practices related to seeds, inorganic fertilizers, and organic amendments. All treatments were found to reliably increase yield and many had a greater effect than the recommended practice, which was not highly valued by farmers. These findings suggest that recommendations should focus on multiple "better" options rather than singular "best" practices, and should encourage farmers to adapt based on their individual circumstances and preferences.

**Jonathan Eldon** is an agricultural ecologist with a background in evolutionary biology and an interest in soil fertility management, farmer adaptation, and experimental design. He has worked in agricultural systems in West Africa, the South Pacific, and the western United States. He received an MS from U Hawaii–Hilo in 2010 and a PhD from the University of California–Santa Cruz in 2017 (website).

Presentations are open to the public (see our website for papers). You are welcome to bring your lunch. For questions, contact Allison Sturgeon (sturgeon@iu.edu; 812/855–3151).

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