Soybean for Africa: an economist's perspective

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Researchers have long reported on the issue of low labor productivity among rural workers in the tropical developing world. The low productivity results from the combined effects of smallholder farmers achieving low yields from their cropping enterprises and from the low value of their tradition crops. Development policies have long sought to raise the yields of low valued crops, but alas, greater supply of low valued staples, only drives down local prices, creates few international market opportunities, and as a result provides little opportunity to exit poverty traps.

Correspondingly, researchers and development workers have also looked to shift smallholders to higher value commercial crops. A Faustian Bargain emerges as such strategies often disrupt local customs, practices, gender roles, and may change land use and environmental impacts. New crops often involve burdensome new components such as new cultural practices, inputs, and marketing arrangements. Thus, indirectly development workers, and directly farmers, face a challenging dilemma; engage in high valued commercial crop production, but adoption, and then sustaining cultivation may be difficult.

I focus on soybean (*Glycine max* L.) as a commercial crop new to tropical settings in Africa that has the potential to raise rural incomes, yet requires managerial demands new to many small producers. In this paper, I show these managerial challenges by comparing cost, price, and production data from colleagues at the Savannah Agricultural Research Institute (SARI) in Northern Ghana with similar data from tropical Brazil. The empirical exercise displayed through this paper provides specific guidance as to the managerial burden higher valued crops such as soybean place on small holders. The paper also measures the labor productivity differences between the low and high input soybean systems.