Introduction

Bean growers in Central America face important insect pests and diseases, including whitefly, bean pod weevil, web slight, angular leaf spot, and many others. In order to avoid yield losses, farmers rely mainly on chemical pest control. However, the use of pesticides has also caused harm to farmer health and the environment. Integrated Pest Management (IPM) has been proposed as an alternative pest control method that seeks to reduce pesticide use and attendant risks to human health and the environment. Despite many efforts at IPM dissemination in the region, its adoption has been low. Farmer Field Schools (FFS) have been introduced in Nicaragua as an alternative extension program aimed at increasing the adoption of IPM.

Research objectives

- Evaluate whether IPM FFS have 1) reduced pesticide risk to human health and beneficial insects, and 2) Induced greater adoption of non-chemical pest control.
- Determine whether individual characteristics of the institutions implementing FFS influence the delivery of IPM.

Methodology

In 2004 we surveyed 436 Nicaraguan bean growers. The clustered random sample was stratified by 4 levels of exposure to IPM training: FFS, same village as FFS graduates, other IPM training, and no IPM training.

Farmer Field Schools

In 2001 with assistance from the Zamorano University and Swiss Development Cooperation IPM program, several institutions introduced FFS. Participant farmers have been “learning by doing” the biology of bean pests and diseases, alternative pest control methods in order to reduce environmental and health risk while maintaining profits.

Selected Results

- FFS have no significant effect on bean growers demand of pesticides
- FFS have a positive and significant effect on IPM non-chemical practices adoption.

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