



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.



Improving perception to achieve intention-action consistency of green manure adoption among smallholder farmers in Guangxi, southern China

by Yixin Nong, Changbin Yin, Xiaoyan Yi, and Hsiaoping Chien

Copyright 2021 by Yixin Nong, Changbin Yin, Xiaoyan Yi, and Hsiaoping Chien. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.

Improving perception to achieve intention-action consistency of green manure adoption among smallholder farmers in Guangxi, southern China

Yixin Nong ^{a, b, c}, Changbin Yin ^d, Xiaoyan Yi ^{d, *}, Hsiaoping Chien ^{a, c*}

Date: 2021.07.01

Abstract: Studies on the farmers' sustainable farming practices behaviors usually focus on willingness (intention) and behavior (action) separately without considering the gap between them and factors that improve intention-action consistency. This study explores the consistency among adoption intention, action, and perception of green manure crops (GMC) regarding soil conservation and sustainable farming among smallholder farmers in southern China. The main factors that affect farmers' intention and action of green manure adoption (GMA) were identified using a bivariate probit model based on 240 samples from Guangxi, southern China. Despite the current adoption rate of only 12%, the survey reveals that 68% and 73% of the respondents had a positive perception and intention of GMA, respectively. The empirical results show that perception positively and significantly affects the intention and action of GMA and effectively improves the intention-action consistency. Female farmers, mixed crop-livestock farming, subsidies, and opinions from neighbors positively impact GMA intentions. Rice cultivation, agricultural training, and conservation training have significant effects on GMA action. Positive perceptions of GMC, rice cultivation, and agricultural and conservation training are key factors for achieving intention-action consistency. This study addresses the challenge of high intention and low action of GMA among smallholder farmers and highlights the importance of perception in improving both intention and action of GMA.

Keywords: perception, green manure adoption, intention-action consistency, bivariate probit

^a Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, 113-8657, Japan

^b Fudan Postdoctoral Fellowships in Applied Economic Studies, Fudan University, Shanghai, 200433, China

^c Guangxi Beibu Gulf Bank Postdoctoral Innovation and Practice Base, Nanning, 530028, China

^d Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences, Beijing, 100081, China

^e Japan International Research Center for Agricultural Sciences, Tsukuba, 305-8686, Japan

*Correspondence: yixiaoyan@caas.cn (X. Yi); chienp@affrc.go.jp (H.Chien)