DETERMINANTS OF ADOPTION OF IMPROVED SOYBEAN VARIETIES AMONG SMALLHOLDER FARMERS IN EASTERN UGANDA

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DECLARATION

This thesis contains my original work and has not been submitted for any degree award in any other university or institution of higher learning.

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DEDICATION

I Dedicate This Thesis To My Mother Joviah Tukahairwa and My Employer Africa 2000 Network Uganda.
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ABBREVIATIONS AND ACRONYMS

A2N Africa 2000 Network Uganda

A2N Project Improving Smallholder Productivity and Controlling STriga in Eastern Uganda. Grant Number 2010 SHP 008

AGRA Alliance for Green Revolution of Africa

CAADP Comprehensive Africa Agriculture Development Program

CIAT International Center for Tropical Agriculture

CIMMYT International Maize and Wheat Improvement Center

DSIP Development Strategy and Investment Plan

FAO Food and Agriculture Organization

GDP Gross Domestic Product

HIV/AIDs Human Immune Virus/ Acquired Immune Deficiency syndrome

ISVs Improved Soybean Varieties

MAAIF Ministry of Agriculture Animal Industry and Fisheries

NAADs National Agricultural Advisory Services

NARS National Agricultural Research System

NDP National Development Plan

NPA National Planning Authority

NIOP National Institute of Oilseed Products

NOPA National Oilseed Processors Association

PMA Plan for Modernization of Agriculture

UBOS Uganda Bureau of Statistics

USDA United States Development Agency
ABSTRACT

Improved soybean varieties were introduced by Africa 2000 Network Uganda (A2N) project (Improving Smallholder Productivity and Controlling STriga in Eastern Uganda) funded by AGRA in three selected districts of Tororo, Namutumba and Busia. However, since their introduction there has not been adequate documentation on adoption of these improved soybean varieties. This study therefore examined the adoption rates and factors that influenced the adoption of improved soybean varieties in Eastern Uganda. Data were collected through structured questionnaires from 239 smallholder soybean farmers selected through multistage sampling in the three districts and analyzed using descriptive statistics and Logit regression. Results of the study showed that the average age of soybean farmers was 43 and most of them had attained at least eight years of formal schooling. Most households (82%) were male headed, 61.1% did not receive any extension visit in a farming season and majority (89.1%) lacked access to credit. The key attributes of improved soybean varieties that influenced farmers’ preference for different varieties were; high yielding capacity (21.7%), big size of seed (17.1%), short maturity periods (14.5%), pest resistance (12.5%), pleasant taste (11.3%), drought tolerance (8.7%), rust resistance (5.8%), resistance to pod shuttering (4.5%) and appealing seed color (3.9%). Rate of adoption and degree of adoption of improved soybean varieties in Eastern Uganda was estimated at 73% and 57% respectively. Determinants found to significantly influence adoption of improved soybean varieties among smallholder farmers in Eastern Uganda included farmer participation in training on soybean agronomic practices (p≤0.01), number of times a household is visited by extension workers (p≤0.05), yield of soybean variety (p≤0.05) and size of the household (p≤0.1). It is therefore recommended that breeders focus on incorporating the key attributes of varieties mostly preferred by soybean farmers in their breeding programmes. A2N Uganda and other institutions should focus on improving knowledge levels of farmers in key aspects of the entire soybean value chain including agronomic practices, application of bio-inoculants and value addition. Government and A2N Uganda extension workers should upscale and sustain their extension service delivery as these have proved to be reliable source of agricultural information for increased uptake of improved soybean varieties in the rural areas.