

Accepted Manuscript

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PII: S1512-1887(17)30016-7

DOI: [10.1016/j.aasci.2016.11.002](https://doi.org/10.1016/j.aasci.2016.11.002)

Reference: AASCI 83

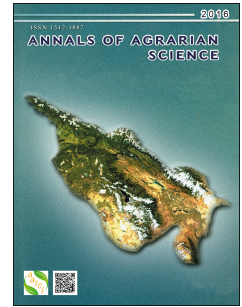
To appear in: *Annals of Agrarian Sciences*

Received Date: 5 September 2016

Accepted Date: 29 November 2016

Please cite this article as: R. Shavgulidze, D. Bedoshvili, J. Aurbacher, Technical Efficiency of Potato and Dairy Farming in Mountainous Kazbegi District, Georgia, *Annals of Agrarian Sciences* (2017), doi: 10.1016/j.aasci.2016.11.002.

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Technical Efficiency of Potato and Dairy Farming in Mountainous Kazbegi District, Georgia

R. Shavgulidze^a, D. Bedoshvili^a, J. Aurbacher^b

^aAgricultural University of Georgia, I. Lomouri Institute of Crop Sciences
240, David Aghmashenebeli Alley, Tbilisi 0159, Georgia

^bJustus Liebig University Giessen, Institute of Farm and Agribusiness Management
3, Senckenbergstraße, Giessen, 35390, Germany

Received: 05 September 2016; Accepted: 29 November 2016

Corresponding author: David Bedoshvili
d.bedoshvili@agruni.edu.ge

ABSTRACT

The study employs a stochastic frontier analysis to assess technical efficiency of potato and cheese production and determine socio-economic factors that influence farmers' technical efficiency levels in mountainous Kazbegi district of Georgia. The study found improved feeding to be inversely related with technical inefficiency in cheese production. In potato production, the analysis revealed implementation of the plant protection measures and use of quality seeds to be significant aspects that influence technical efficiency of potato growers.

Keywords: potato, productivity, commercialization, livestock, household.

Introduction

Potato and dairy farming is concentrated among small-scale, diversified, subsistence farmers, and represent major livelihood and source of food security for rural households in mountainous Kazbegi district. These production systems are characterized by low productivity and limited commercialization. Potato and dairy producers have poor linkages in upstream markets, limited access to extension and other services and infrastructure. There is a high consumer demand for potato and cheese produced in the Kazbegi district in major urban areas of the country, where these products are sold at a premium. However, most of the output is self-consumed by farming households and extended family members due to small output and a limited success to establish long-term downstream linkages in major markets, and only surplus is marketed either for cash or through in-kind exchange.

The objective of the study is to identify gaps in efficiency and potentials in the production processes and associate them with socioeconomic and technical factors. This allows deriving policy and extension recommendations for improved income generation at the farm household level.

Data and Analytical Methods

To measure and explain the efficiency of the two most prominent production processes in the district, the stochastic frontier analysis has been used. Data has been gathered by an empirical primary data survey.

Data Source

The study is based on 82 potato and 151 livestock farmers' 2014 cross-sectional production data. The information was collected through a survey of farmers in 10 villages of Kazbegi district. The survey was carried out in summer 2015 and was based on respondent-driven sampling.

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