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Sustainable and organic approaches to meet human needs”

## **Triticale Crop and Food Security, and Determinants Influencing the Adoption of Triticale: Example from the Amhara Region, Ethiopia**

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### **Abstract**

An average 5 million Ethiopians out of the current (2007) estimated population of 76 million, have been living in critical food deficits annually. As the country's land resources are exhausted and land productivity diminished due to severe land degradation, new crop varieties and new technologies are required in order to increase domestic agricultural production for meeting the basic requirements of the population which is growing at a rate of over 2% p.a. In response to these fundamental problems of the sector and the deteriorating food insecurity situations, large numbers of technologies have been generated for the last many years. However, the adoption of new technologies by the small scale farmers which account 95% of the total area under crop cultivation in the country is quite limited. The adoption of new technologies by farmers under varying contextual settings is influenced by number of socio-economic, institutional, and demographic factors of the farming households. In that context, in particular triticale (*x Triticosecale Wittmack*) has come into the focus since the late 1990ies. Research results under taken in various districts of the Amhara Region, show that the crop provides at least twice as much yield as the traditional crop tef under similar agro climatic conditions and field treatments.

The study attempts: **(1)** to identify the factors that influence the decision by farmers to grow triticale, and examines the food security effects resulted from the adoption of the new crop in the Amhara region; **(2)** to address the question what factors influence farmers' to adopt the new crop, and how far tef could be substituted by triticale in order to increase food production and thus ensure food security in the Amhara region.

As the preliminary results indicate the adoption of triticale crop is positively correlated for example, with the demographic characteristics such as household size and age of the household head; household labour; availability of extension services; farm size and land tenure system.

The planned presentation aims to highlight the procedural methods used in the study, and discuss the preliminary outcomes.

**Keywords:** Baking quality, food security, tef, triticale