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Promotion of Improved Teff Technologies for Smallholder Farmers in Amhara Region, Ethiopia: Evidence from Wag-Himra and North Wollo Zones

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Abstract

Teff is the main source of the Ethiopian economy in terms of human food and animal feed as well. Due to its high level of demand at the local and global market, teff considers as a cash crop. This study aimed to promote high yielding teff varieties to increase teff production and productivity. The study was carried out in Wag-Himra and North Wollo zones for the 2013 and 2014 main cropping season. We applied two improved teff varieties, which are Kuncho and Zoble in the study above area. A total of 254 participant farmers who had 0.25 ha average farm; 131 and 123 farmers from Wag-Himra and north Wollo zones were selected, respectively. Those varieties covered a sum of 69 ha land. The result showed that the performance of Kuncho and Zoble varieties had a significant difference over the local. The mean grain yield of Zoble and Kuncho in Wag-Himra and North Wollo zones were 1.21 ton ha⁻¹ and 1.45 ton ha⁻¹; Kuncho and Zoble had yield advantage of 0.599 ton ha⁻¹ over the local varieties. Also, there was a significant mean difference between female and male-headed farmers because female farmers had more workload both in the field and home and had a small labour force to accomplish farm activities than male-headed farmers. Thus, about 89.4% of the sample farmers were highly enthusiastic to use improved teff technologies in their future teff farm production instead of local teff varieties and traditional cultivation system. The super interesting approach to popularize the target teff technology was organising farmers' field day and stakeholder workshops. Thus, due to the spillover effect, the aforementioned improved varieties disseminated for 670 farmers (both in-village and out-village) in the following years. Besides, we found each participant farmer had transferred the improved teff varieties averagely for two other fellow farmers in any exchanging system in terms of money or in-kind. Thus, we safely recommended for further scale-up/out of those varieties through establishing sustainable seed multiplying cooperatives in each respective zones to keep its sustainability.

Keywords: Cluster approach, farmers' field day, Kuncho, perception, spillover effect, Zoble