Planting methods significantly impacted teff yield

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Evaluating Teff performance (at flowering stage) under greenhouse conditions. Photo by Fekrem

Evaluating Teff performance (at flowering stage) under greenhouse conditions. Photo by Fekremariam Asargew Mihretie.

Teff is the staple food crop in Ethiopia, and teff straw is a preferred feed for livestock. However, the crop's yield remains below 1,500 kg ha^{-1}. The low yield is primarily attributed to the lack of available agronomic technology as well as the use of traditional cultivation practices. Teff seeds are hand-scattered by farmers at high seeding densities (> 25 kg ha^{-1}). Therefore, improving the current agricultural practices is essential to increase the productivity of teff.

Researchers evaluated grain yield and cost of planting methods (broadcast, row, and transplanting), row spacing, and seeding densities. Results of the study, published in *Agronomy Journal*, showed that transplanting resulted in 34 and 75% greater grain yield

than row and broadcast planting, respectively, and row planting gave greater (30%) grain yield than broadcasting. Grain yield increased as seeding density increased from 2.5 to 10 kg ha^{-1} and then declined at greater seeding densities for both broadcast and row planting. Grain yield declined sharply as row spacing increased from 15 to 30 cm for both transplanting and row planting. Row planting with narrow spacing and reduced seeding density was the most economical teff production method.

Dig Deeper

Mihretie, F., Tsunekawa, A., Bitew, Y., Cheklie, G., Derebe, B., Getahun, W., … & Asfaw, M. (2020). Teff [*Eragrostis tef* (Zucc.)] rainfed yield response to planting method, seeding density, and row spacing. *Agronomy Journal, 113.*

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