

Ratooning Potential of Interspecific NERICA Rice Varieties (Oryza glaberrima Oryza sativa) (2009)

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Abstract

Field experiment was conducted in Deve (6°48 N, 1°47` E, 72 masl) in the Savannah zone of Benin Republic, to examine the increase in grain yield due to ratooning. Eighteen upland interspecific varieties (NERICA1-18) and their <I>Oryza glaberrima</I> (CG 14) and one of the <I>O. sativa </I> (WAB 56-104) parents were used in a Randomized complete block design with three replications. The first (main) crop was harvested at mass maturity, after which the tillers were hand mowed to stubbles of about 10 cm tall. These were then left without any further input, until the ratooned plants were ready for harvest. The result showed a large variation in the ratoon performance among NERICA, with ratoon ability ranging from 13% (NERICA 2) to 39% (NERICA 14 and 17). Total grain yield (main plus ratoon) was significantly different ($p < 0.001$) from that of the main harvest. The maximum total grain yield was 6.14 t ha⁻¹ for NERICA 2 followed by NERICA 15 and 11 (6.02 and 6.01 t ha⁻¹, respectively). The yield increase of more than 1.5 t ha⁻¹ (the average yield of upland rice in Sub-saharan Africa) recorded in NERICA, with no additional input was very encouraging. This will presumably increase with additional input during ratoon. Therefore, NERICA rice is able to fructify twice, hence farmers can harvest more rice and make more profit.