C2088. YIELD PERFORMANCE OF POTATO CLONES WITH DURABLE RESISTANCE TO LATE BLIGHT

Onditi J. O[1], S.W. K Nderitu[1] and J.A. Landeo[2]

[1]*Kenya Agricultural Research Institute (KARI), Tigoni*
P. O. Box 338-00217 Limuru
[2]*International Potato Centre (CIP), Sub-Saharan Africa Office Nairobi. P.O. Box 25171, Nairobi, Kenya*
Corresponding author Email: j.landeo@cgiar.org

Abstract

Higher yielding potato varieties are highly demanded by farmers and consumers. This study was conducted to determine yield performance of 15 potato clones derived from a breeding population with durable resistance to late blight. Trials were carried out over two cropping seasons at Tigoni, Molo, Nyandarua and Meru. Data was collected on plant vigor, number of marketable size tubers and tuber yield. There was significant (P=0.05) variation in yield performance of different genotypes across the different sites. Four clones, CIP 393077.159, 393077.54, 393111.13 and 395112.36 were identified with significant (P=0.05) higher plant vigour than the rest of the genotypes. Two of these, CIP 393077.159, 393077.54 were found with significant (P=0.05) higher mean yield of 48.2 T/ha and 52.4 T/ha, respectively than that of the highest yielding check variety Tigoni which yielded 36.7 T/ha. The two higher yielding clones did not however, have significant higher number of tubers per plant than the rest of the clones but had a good mixture of seed and ware tuber grades. Due to higher yields, the two clones identified in this study were recommended for release ..

Key words: Potato, *Solanum tuberosum*, yield, vigour, tubers, varieties