

DEVELOPMENT OF POPCORN VARIETIES FOR HIGH GRAIN YIELD AND ADAPTATION

***S.A. OLAKOJO AND J.E. IKEN**

Institute of Agricultural Research and Training, P.M.B. 5029,
Moor Plantation, Ibadan, Nigeria.

*Corresponding author E-mail: drart@infowed.abs.net

ABSTRACT

Intravarietal selection was carried out from two elite (Golden and Yellow composite) popcorn varieties in 1996 and 1997. The resultant genotype and their F₁ hybrids were later evaluated at Moor Plantation, Ibadan in 1998 and 1999 cropping seasons for uniformity in grain moisture at harvest, days to maturity and grain yield potential. The results showed that percentage (%) grain moisture and grain yield were highly significant for variety, while variety x year interaction was only significant for grain moisture. The significant differences in year x variety interaction showed that four of the six popcorn hybrids involving parents GP15, YP 78 and YP215 were responsible for the significant effect found in grain moisture. Mean grain yield, grain moisture and silking-maturity interval varied significantly among the popcorn parents indicating broad genetic base of the parent lines for further use in popcorn improvement. The hybrids were, however, not significantly different for grain yield, days to maturity and % grain moisture, suggesting uniformity of the hybrids with respect to these characters. The popcorn hybrids may therefore be adopted by commercial popcorn growers to boost production.

Keywords: Popcorn, yield, adaptation.